NORTHWEST TERRITORIES

School Health Program

GRADE SEVEN

Northwest Territories

Education, Culture and Employment
Health and Social Services

NORTHWEST TERRITORIES

School Health Program

GRADE 7

Education, Culture and Employment
Health and Social Services

August, 1996

NORTHWEST TERRITORIES

School Health Program

INTRODUCTION

TABLE OF CONTENTS

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Coordinators:
- Robert Imrie - Head, Health Information and Promotion, Department of Health
- Helen Balanoff - Program Specialist, Health, Department of Education

Curriculum Writing/Activity Ideas:
- Cathy Marsollier - Research/Writer, Department of Health
- Wade McLain - former Research/Writer, Department of Health
- Mary Jane Stewart - Contract Writer, Department of Health
- Laura McCormick - School of Dental Therapy, University of Manitoba
- Reiko Trudeau - Teacher, Rae-Edzo
- Catherine Mains - Teacher, Rae-Edzo
- Liv Nygaard - former Teacher, N.W.T.
- Susan Yazdanmehr - Health Information Officer, Department of Health
- Jim Reid - former Teacher, N.W.T.
- Heather Nolsoe - Program Specialist, Social Studies, Department of Education
- Margy Gilmour - Program Specialist, Department of Education

Illustrations:
- Francis Mercredi - Yellowknife
- Heather Imrie - Banff, Alberta
- Elizabeth Lorenz - Yellowknife
- Mary Ann de Wolf - Dallas, Texas

Editing:
- Cathy McGregor - Coordinator, Language Development, Department of Education
- Barbara Hall - Program Specialist, Alternative Programs, Department of Education

Reviewing/Evaluating:
- Dr. Dexter Harvey - Faculty of Education, University of Manitoba
- Dawn White - Health Consultant, Manitoba
- Mary Brown - Curriculum Consultant, Department of Education, Manitoba
- Members of the Northern Nutrition Association
- St. John Ambulance Association
- AIDS Sub-Committee, GNWT Department of Health/Health and Welfare Canada

Photography:
- Tessa Mclntosh - Department of Culture and Communications
- Lorne Smith - Education Officer, Department of Education
- Fran Hurcomb - Photographer
- Rene Fumoleau - Photographer

General Assistance/Consultation:
- Don Kindt - Program Specialist, Math/Science, Department of Education
- LuAnn Lovlin - Public Information Officer, Department of Education
  Stella Van Rensburg - former Project Director, School Health Program, Department of Health
- Sarah Kelleher - Program Development, Department of Education
  Barbara Round - Coordinator, Family Life Education, Department of Health
- Jo-Anne Crate Thomas - Program Specialist, Alcohol and Drug Services, Department of Social Services
- Donna Nash-Alain - Proof-reader
- Derek Green - Coordinator, Program Evaluation, Department of Education

Members of the Advisory Committees:

- Judy O'Heir - Assistant Regional Nursing Officer, Health & Welfare Canada
- Mike Kelly - Regional Guidance Counsellor, Department of Education, Inuvik
- Patricia Nester - Classroom Assistant, Rankin Inlet
- Mabel Wong-Tam - Coordinator, Nutrition Services, Stanton Yellowknife Hospital
- Yvonne Green - Director of Dietetics, Stanton Yellowknife Hospital
- Gordon Trueblood - Coordinator, Health Education, Indian and Inuit Health Services, Health and Welfare Canada, Ottawa
- Dr. Dexter Harvey - Faculty of Education, University of Manitoba
- Dr. Peter Kallos - Medical Officer, Yellowknife
- Olasie Machmer, Jeela Moss-Davies -Inuit Women's Association, Ottawa
- Lorraine Doctor, Marjorie Kossatz - N.W.T. Native Women's Association, Yellowknife
- Sharon Kirwan - Assistant Regional Nursing Officer, Health & Welfare Canada
- Bob MacQuarrie - Member of the Legislative Assembly, Northwest Territories
- Beaton MacKenzie - Teacher, Yellowknife Education District #1
- David Bouchard - Religious/Health Coordinator, Yellowknife Separate School Board
- Veronica Curley, Elizabeth Lyall - Keewatin Inuit Association, Rankin Inlet
- Robbie Robinson - Chief, Safety Division, Department of Justice and Public Services
- Elsie Burger, Thomas Palakkamanil, Bertha Blondin - Dene Nation, Yellowknife
- Margaret Dukes - St. John Ambulance Association, Ottawa

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NORTHWEST TERRITORIES

School Health Program

PHILOSOPHY AND RATIONALE

THE RATIONALE FOR HEALTH EDUCATION

Traditionally, almost all human and financial resources related to health care in the Northwest Territories have been devoted to acute treatment of illnesses in nursing stations, doctors' offices, hospitals and drug treatment centres. The human and financial costs of this approach have been high.

This approach has led to dependence on medical institutions and professionals. As a result, there is a recognized need to promote a more comprehensive approach to health, especially as it relates to lifestyle. In addition to acute care services, this new approach would include education, environmental changes and greater individual responsibility for health.

THE NEED FOR A HEALTH EDUCATION PROGRAM IN N.W.T. SCHOOLS

Dr. Otto Schaefer, a well-known northern medical officer, has shown that abrupt changes in the diet of native populations have contributed to an increasing incidence of non-communicable diseases, such as cancer and obesity, as well as diseases of the respiratory and circulatory systems. Furthermore, according to Dr. Schaefer, the breakdown of the traditional social structure, specifically the family unit, is associated with wide-spread alcohol and drug abuse, increases in sexually transmitted diseases, family violence and suicide.

In November 1982, the survey "Tobacco Use Among Students in the Northwest Territories" reported that smoking rates in the school population of the N.W.T. were among the highest recorded for any school population in Canada. Smoking started in the early years of elementary school and by the late adolescent years (15 to 19). 49% of boys and 53% of girls were regular smokers. It also found that approximately 910 of Northwest Territories school children used chewing tobacco or snuff. It concluded that four variables were important in the decision to smoke - age, smoking behaviour of friends, smoking behaviour of brothers or sisters and parental smoking.

In 1984, according to the "Report on Health Conditions in the Northwest Territories", accidents, injury and violence accounted for more than 30% of all deaths. The rates for suicide, infant deaths, sexually transmitted diseases and teenage pregnancies were all above the national average.

In addition, there is evidence from treatment centres, that more and more young people are seeking help for drug problems at a younger age.

Also in 1984, the Social Program Evaluation Group from Queen's University, with a grant from Health and Welfare Canada, conducted the Canada Health Attitudes and Behaviours Survey in all provinces and territories. They conducted this survey in a number of selected communities in the Northwest Territories among Grade 4, Grade 7 and Grade 10 students. It concluded that with respect to:

Nutrition

- young people in the Northwest Territories were well below the national average for Grade 4 and Grade 7, and slightly below for Grade 10, in meeting the daily requirements of all four food groups (both in amount and variety);

- young people at all three grade levels consumed more foods with a high sugar content than their southern counterparts.

Alcohol & Drug Use

- higher than average percentage of Grade 7 and Grade 10 students in the Northwest Territories smoked cigarettes,

- of Grade 10 students, lower numbers used alcohol (some communities in which the surveys were conducted were "dry" communities);

- there was an extremely high incidence of cannabis use.

Self-esteem

- Northwest Territories young people felt slightly less positive about themselves and their relationships with their parents than other young Canadians.

Family Life Education

- a higher proportion of students in the N.W.T. than elsewhere in Canada learned about human sexuality in school.

Many of the problem health conditions identified in these and other studies are related to lifestyle behaviours and unhealthy environmental conditions which can be modified by the individual.

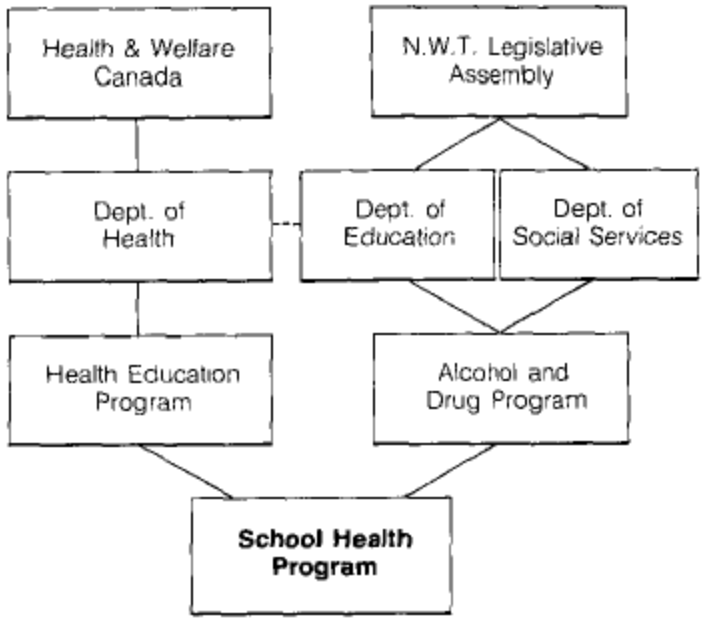
THE HISTORY OF THE N.W.T. SCHOOL HEALTH PROGRAM

Prior to 1979, teachers in the Northwest Territories had no formal health program to follow. In 1979, the Department of Education **published *"The Northwest Territories Community School Health Program."*** It outlined the goals which students should achieve by the end of Grade 9. Although the list of goals provided teachers with a framework for unit and lesson planning, it was not a comprehensive health program.

In 1983, on the premise that many of the health problems which exist in the Northwest Territories could be prevented or reduced through an education program in the schools, the Northwest Territories Department of Health received funding from Health and Welfare Canada to develop a program for Kindergarten to Grade 12 students in consultation with the Department of Education.

At the same time, the Northwest Territories Legislative Assembly allocated separate funding to the Department of Social Services and the Department of Education to develop an Alcohol and Drug Program for schools.

These two programs together form the Northwest Territories School Health Program.



ASSESSING THE HEALTH NEEDS OF N.W.T. SCHOOL CHILDREN

The public, particularly parents and students, must accept a health education program in order for it to have an impact on their everyday lives. Such acceptance requires involvement. Local involvement also ensures the relevance of the program to the students for whom it is designed.

To ensure input by northerners, the Department of Health established two advisory committees with members representing professional, cultural and regional groups. These advisory committees provided general overall direction to the project.

The program staff conducted a comprehensive needs assessment to assess the perceived health needs of students in communities.

They distributed questionnaires to the following selected groups of people in every community in the Northwest Territories:

- pre-adolescent students and their parents
- adolescent students and their parents
- Local Education Authorities teachers
- administrators

The questionnaires asked:

- what aspects of health students were interested in; what parents thought it was important for their children to learn about health, and,
- what Local Education Authorities and teachers perceived the needs of the students in their local school were.

Well over 3000 people responded to the questionnaires. They made a significant contribution to this program by articulating the health needs of students.

At the same time, researchers examined statistical data about the delivery of health care in the Northwest Territories to determine why people in various age groups sought professional health care. They found, for example, that, in the 15-19 age group, the main reasons for health care were a result of injuries or poisoning. This was closely followed by diseases of the respiratory system.

Evidence from:

- the examination of problem health conditions in the N.W.T.
- the assessment of student health needs by themselves and others close to them, and
- the analysis of reasons why people seek medical help indicates that many young people are seeking treatment for problem conditions which could have been prevented. Young people must be encouraged to accept responsibility for their own health in order to maintain and enhance personal health.

A VISION OF HEALTH

Health is a state of complete physical, mental and social well-being. It is the result of a dynamic interdependence of these elements, as well as cultural and spiritual elements. Any change which occurs in one dimension will affect the others.

To reach a state of complete well-being, an individual must be able to realize aspirations, satisfy needs and change or cope with the environment.

This vision of health and the premise that health is a resource for everyday life serves as a basis for the Northwest Territories School Health Program.

The World Health Organization states "Health promotion is the process of enabling people to increase control over, and to improve, their health."

This is done in three ways:

- through self-care i.e., making decisions and adopting practices which specifically preserve their health; through mutual aid i.e., helping each other, supporting each other emotionally, sharing ideas, information and experiences;
- through creating healthy environments i.e., altering or adapting social, economic and physical surroundings to maintain and enhance health.

In order for individuals to make informed decisions with regard to their health, they must have support, information and skills to help them understand what promotes their health and what they themselves can do to enhance health.

This is the focus of the Northwest Territories School Health Program.

THE ROLE OF SCHOOLS IN HEALTH PROMOTION

Health promotion is specifically dedicated to enabling individuals to take the lead role in determining the status of their own health. The growing commitment to health education programs in schools can create a supportive environment for the development of healthy practices by providing information and encouraging change. Many jurisdictions now acknowledge the importance of health to quality of life by requiring health education as part of the school curriculum.

It is important to articulate the role of the school in health promotion. It is also important to recognize the limitations of the school's role. The public expects a program such as the Northwest Territories School Health Program to solve all the current social, emotional or physical conditions which contribute to a less than perfect state of well-being among students. That is not the role of health education in the school, The School Health Program does complement the efforts of other agencies in health promotion in the N.W.T. by specifically providing information and by developing skills and attitudes to enable individuals to take the lead role in attaining healthy life styles. The school cannot, however, make the student choose a healthy lifestyle.

By providing information and by developing skills, the school, however, does influence beliefs and attitudes, and it is these changing beliefs and attitudes that impact on behaviour.

Health behaviour is related to the general beliefs:

- that people are vulnerable to problem health conditions;
- that these conditions produce undesirable consequences; and,
- that the consequences are usually preventable.

By influencing these health beliefs positively, the school will increase the probability of positive health behaviours.

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NORTHWEST TERRITORIES

School Health Program

IMPLEMENTATION

MAJOR GOALS

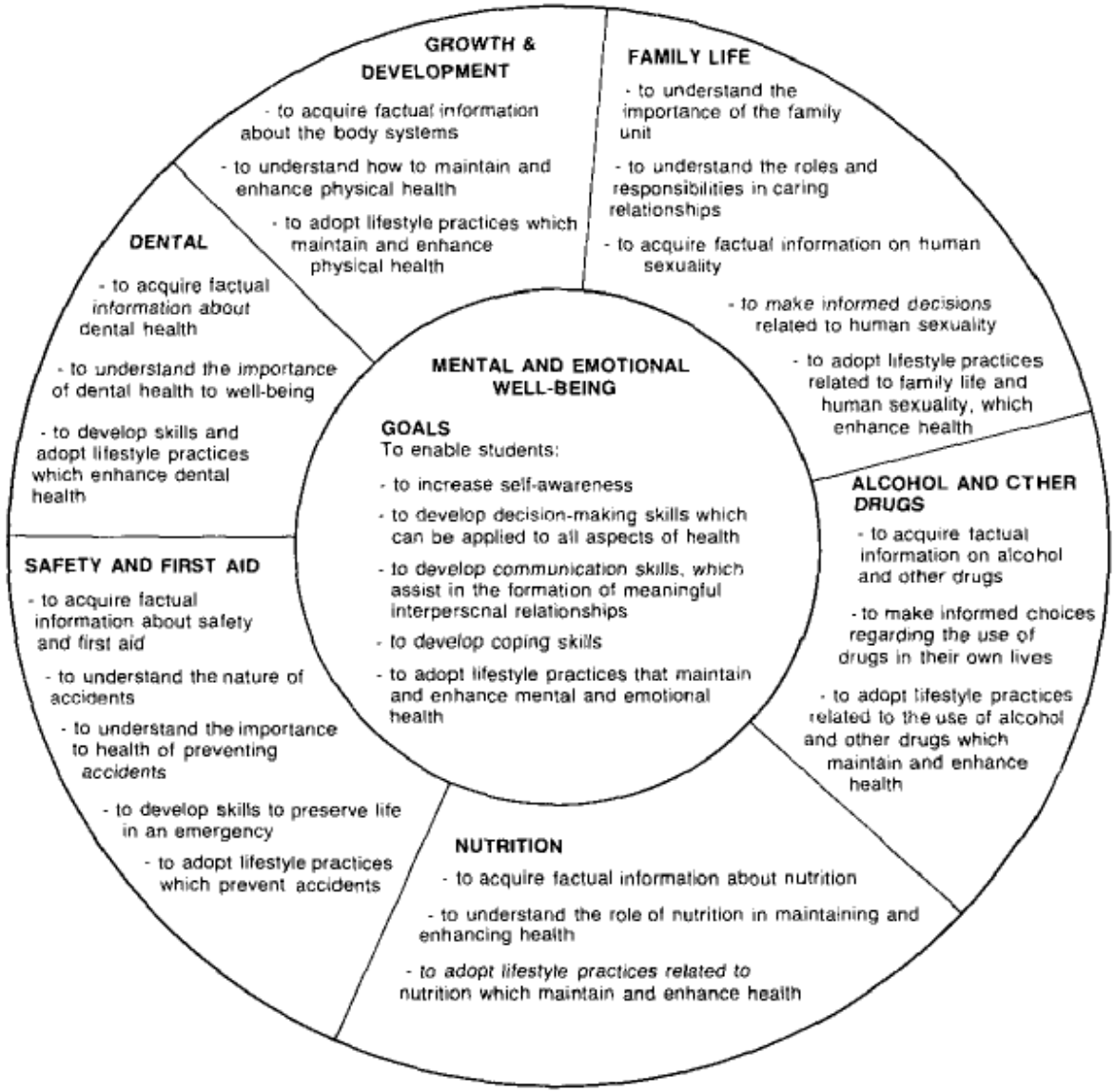
OF THE NORTHWEST TERRITORIES SCHOOL HEALTH PROGRAM

The major goals of the Northwest Territories School Health Program are:

- *to provide factual information on the human body;*
- *to enable students to develop skills that, along with the factual information, will allow them to make informed choices related to health;*
- *to enhance students' self-esteem through self-understanding;*
- *to enable students to develop attitudes which lead to positive lifestyle behaviours; and,*
- *to promote positive lifestyle practices which are conducive to lifelong health.*

THE UNITS OF THE PROGRAM

There are seven units in the program. The central unit is Mental and Emotional Well-Being. It is the major skill-building unit.



SCOPE AND SEQUENCE

The following charts provide an overview of the major topics, indicating at which grade they are taught.

UNIT	KINDERGARTEN	GRADE 1	GRADE 2	GRADE 3
Mental & Emotional Well-Being	**Self awareness** • physical characteristics • abilities • feelings **Relationships** • doing things with friends	**Self awareness** • physical characteristics • abilities • likes and dislikes **Relationships** • working and playing together • helping • sharing	**Self awareness** • feelings • expressing feelings appropriately **Relationships** • friends • making friends **Coping** • stressful situations	**Self awareness** • people are alike and different • everyone is unique **Relationships** • responsibilities • sharing responsibilities • different ways of communicating **Decision-Making** • choices • situations which require decisions
Growth & Development	**Body Systems** • external body parts • five sensory organs **Lifestyle** • positive daily and regular health habits	**Body Systems** • touch • taste • smell **Disease Prevention** • signs of sickness • germs spread diseases • disease prevention	**Body Systems** • sight • hearing **Lifestyle** • positive health habits **Health Care** • community health care workers **Environmental Health** • clean water, air and good soil	**Body Systems** • internal organs **Growth Patterns** • changes in height and weight **Disease Prevention** • personal responsibility for health **Environmental Health** • different kinds of pollution
Family Life		**Families** • different members • similarities/differences in family structures **Human Development & Reproduction** • external body parts/boys/girls **Abuse Prevention** • feelings associated with touch • safety rules • family/community support people	**Families** • families provide for the needs of their members • the maintenance of the family unit **Human Development & Reproduction** • living things reproduce and grow **Abuse Prevention** • potentially abusive situations • behaviours that maintain personal safety	**Families** • family structure changes with time • new family members • some family members require special care **Human Development & Reproduction** • body organs related to reproduction • human babies are created from the union of a sperm and egg

SCOPE AND SEQUENCE

UNIT	KINDERGARTEN	GRADE 1	GRADE 2	GRADE 3
Nutrition	**Food Identification** • foods and non-foods **Food Appreciation** • healthy snacks • unfamiliar foods	**Food Identification** • foods from plants and animals **Food Classification** • four food groups **Food Selection** • food from each food group **Food Appreciation** • nutritious food to start the day	**Food Identification** • different food farms **Food Classification** • functions of each food group • nutritious snacks **Food Selection** • nutritious meals **Food Appreciation** • different food forms	**Food Classification** • classifyng into food groups • function of each food group • common foods which do not belong to a food group **Food Selection** • nutritious eating for one day **Food Appreciation** • nutritious food to start the day
Dental	**Structure and Function** • primary and permanent teeth • teeth functions **Oral Hygiene** • toothbrushing skills **Dental Health** • safe and unsafe food	**Structure and Function** • primary and permanent teeth • teeth functions **Oral Hygiene** • toothbrushing skills **Dental Health** • safe and unsafe food • safe and unsafe behaviours **Dental Disease** • tooth decay **Dental Services and Products** • local dental health workers	**Structure and Function** • primary and permanent teeth **Oral Hygiene** • flossing skills **Dental Health** • safe and unsafe snacks **Dental Disease** • dental plaque **Dental Services and Products** • common dental health products	**Structure and Function** • specific tooth groups and their functions **Oral Hygiene** • toothbrushing and flossing skills **Dental Disease** • dental plaque **Dental Services and Products** • personal responsibility for dental health care • community dental health workers
Safety & First Aid	**Personal Safety** • personal safety rules • personal identity facts • community safety helpers • safety rules for pedestrians **Fire Safety** • fire drill procedures **Safety** • poisons • poison warning sign • tasting unknown substances • hazard warning signs	**Personal Safety** • personal safety rules • personal identity facts • community safety helpers • emergency phone calls **Accident Prevention** • burns and scalds • falls **First Aid** • first aid for minor cuts **Safety** • poisons • sniffing unsafe substances • tasting unknown substances	**Bum Prevention** • safety rules around electricity **Bicycle Safety** • bicycle rules and traffic laws **Outdoor Safety** • frostbite **Firearm Safety** • firearm safety rules **First Aid** • nosebleeds **Safety** • hazard warning signs • common unsafe substances • rules for unsafe substances	**Burn Prevention** • burns and scalds **Fire Safety** • clothes on fire • burning buildings **Outdoor Safety** • Ice safety **Personal Safety** • animal bites **Safety** • hazard warning signs
Alcohol & Other Drugs		**Drugs** • medicine safety	**Drugs** • medicines are drugs • medicines may be helpful and harmful	**Drugs** • sources of medicnes • rules for medicines • common substances which contain drugs **Tobacco** • effects of tobacco **Well-Being** • improving their well-being

SCOPE AND SEQUENCE

UNIT	GRADE 4	GRADE 5	GRADE 6
Mental & Emotional Well-Being	**Self awareness** • strengths and weaknesses • activities affect how people feel **Relationships** • caring behaviours **Decision-Making** • the effects of choices • peer influence • resisting peer pressure	**Relationships** • communication/effective speaking/active listening • assertive communication skills • the refusal process **Decision-Making** • advertising influence **Coping** • stressful situations • signs of stress • ways of dealing with stress	**Relationships** • responsibilities in maintaining a relationship • volunteerism **Decision-Making** • values • the decision-making process • group decisions **Coping** • time management **Lifestyle** • assessing/improving personal characteristics
Growth & Development	**Body Systems** • digestive system **Disease Prevention** • communicable/non-communicable diseases **Environmental Health** • safe drinking water **Health Care System** • health care supports	**Body Systems** • respiratory system/circulatory system • lifestyle behaviours for a healthy cardiovascular system	**Body Systems** • excretory system/nervous system **Disease Prevention** • germ entry into the body • the three lines of defence • AIDS prevention
Family Life	**Families** • families provide for the needs of their members • family traditions **Human Development and Reproduction** • characteristic changes of puberty • reproductive system • menstruation (optional lesson for girls only) **Abuse Prevention** • touches that produce negative or confused feelings • family/community support people	**Families** • male/female roles • family activities **Human Development and Reproduction** • characteristic changes of puberty • reproductive system • menstruation • reproductive process/sex cell development/journey of sperm/ intercourse/fertilization	**Families** • responsibilities and relationships change with time • importance of elders **Human Development and Reproduction** • endocrine system • relationship between puberty and the endocrine system • relationship between reproduction and menstruation • reproductive process/stages of fetal development **Abuse Prevention** • sexual abuse/behaviours which prevent abuse • family1communty, support people

SCOPE AND SEQUENCE

UNIT	GRADE 4	GRADE 5	GRADE 6
.	**Food Classification** • six major nutrients • sources of major nutrients • nutritious and non-nutritious snacks **Food Selection** • factors that affect food choices **Food Appreciation** • nutritious snacks	**Food Classification** • leader nutrients and their functions • sources of leader nutrients **Food Selection** • recommended daily servings • food availability, • food processing **Food Appreciation** • a nutritious northern meal	**Food Classification** • leader nutrients and their functions • sources of leader nutrients **Food Selection** • serving sizes • balanced food intake • reading food labels **Lifestyle** • personal nutrition program
Dental	**Structure and Function** • structure and functions of teeth **Oral Hygiene** • oral hygiene skills • healthy dental behaviours **Dental Health** • dental hazards • preventing dental injuries **Dental Disease** • tooth decay • fluoride **Dental Services and Products** • dental health care	**Oral Hygiene** • toothbrushing and flossing skills **Dental Health** • effects of tobacco products **Dental Services and Products** • benefits and disadvantages of dental health products • homemade toothpaste • role of dental health workers	**Structure and Function** • structure and functions of teeth **Oral Hygiene** • oral hygiene skills • healthy dental behaviours **Dental Disease** • common dental health problems • signs of dental health problems • treatment for dental health problems • preventing dental health problems **Lifestyle** • personal dental health program
Safety & First Aid	**Burn Prevention** • scalds **Bicycle Safety** • bike maintenance • bike skills and safety rules **Fire Safety** • common causes of fire • fire exit plans • individual responsibility **First Aid** • frostbite and hypothermia **Motor Vehicle Safety** • all terrain vehicles • snowmobiles	**Burn Prevention** • burns from flames • burns from electncffy **Fire Safety** • home/campfire safety **Outdoor Safety** • safe camping • water and ice safety **First Aid** • burns • external bleeding	**Motor Vehicle Safety** • all terrain vehicles • snowmobiles **Babysitting Safety** • responsibilities • common quires • safety rules • emergencies **Outdoor Safety** • survival **First Aid** • artificial respiration • choking • external bleeding • poisoning • unconciousness **Lifestyle** • importance of first aid • safety organizations and professionals • personal safety and first aid program
Alcohol & Other Drugs	**Drugs** • specific drugs in commonly used substances • medical and non-medical drugs • effect of drugs on the brain • reasons for using/not using drugs • personal responsibility for decisions about use of drugs • use and misuse of drugs **Caffeine** • caffeine affects the body **Alcohol** • alcohol affects the body • factors which determine the effects of alcohol • reasons for using/not using alcohol • misuse of alcohol • community resources for alcohol problems **Well-Being** • feeling good without drugs	**Drugs** • specific drugs in commonly used substances • tobacco affects the body • drug myths • community resources for drug information • peer pressure/advertising influence decisions about drug use **Alcohol** • short/long term effects of alcohol • use and misuse of alcohol • community resources for alcohol problems **Well-Being** • feeling good without drugs	**Drugs** • personal responsibility for decisions about drug use • values related to drug use • drug myths • peer pressure/advertising influence decisions about drug use **Alcohol** • factors which determine the effects of alcohol • social effects of alcohol misuse • effects of alcohol on young people **Well-Being** • individual activities which promote well-berg • leisure time activities in the community

SCOPE AND SEQUENCE

UNIT	GRADE 7	GRADE 8	GRADE 9
Mental & Emotional Well-Being	• self-esteem • conversations • criticism • personal plan to enhance self-esteem	• characenstics of effective working groups • reasons for forming group • depression • suicide • stress - causes - methods of dealing with stress	• future career choices • job seeking • assessment of personal lifestyles • personal plan to improve lifestyle
Growth & Development	• integumentary system/immune system common health problems of adolescence • health behaviours which help prevent adult health problems • physical fitness - components - personal plan	• skeletal system/muscular system • personal exercise plan for the muscular system	• inter-relationship of the body system • NWT Health Care system function - responsible use • economics of health care • health careers
Family Life	• family decisions • family communication • reproductive system function • relationship between endocrine system and the menstrual cycle • stages of the reproductive process • abstinence • risks and consequences of early pregnancy • sexually transmitted diseases - AIDS - chlamydia - gonorrhea - preventive behaviours • sexual assault - common myths - consequences for victim and offender • potentially dangerous situations • behaviours which help prevent sexual assault	• family structures change • menstruation - the implications • stages of the reproductive process • abstinence and assertiveness • positive health behaviours related to pregnancy • sexually transmitted diseases - AIDS - syphilis - trichomonas - pubic lice - preventive behaviours • birth control - methods - attitudes • family violence - causal factors - coping	• sex-role stereotyping • effective parenting • support systems for families • reproductive system - its role in the formation of new life • heredity • fetal development stages - risk factors • birth control risks and consequences • unplanned pregnancy - alternatives attitudes - prevention • positive lifestyle practices related to family life • constructive relationships

SCOPE AND SEQUENCE

UNIT	GRADE 7	GRADE 8	GRADE 9
Nutrition	**Food Classification** • NWT Food Guide **Food Selection** • menu planning for different age groups **Food Consumerism** • advertising affects food choices • food additives **Food Appreciation** • food items with few additives	**Energy Balance** • energy needs • stored energy • energy intake and output **Food Consumerism** • analyzing diets **Lifestyle** • weight control	**Food Selection** • factors that influence food choices • food customs in the NWT • community feast menu **Lifestyle** • nutrition concerns in the NWT • preventive behaviours • Canadian nutrition and dietary recommendations • personal nutrition program
Dental	**Dental Health** • dental emergencies **Dental Disease** • common dental health problems of children and youth • nursing bottle mouth	**Dental Health** • safe, unsafe foods **Dental Services and Products** • professional preventive procedures • fluoride • common dental health products **Lifestyle** • personal action plan for dental health	**Dental Health** • behaviours/factors that promote dental health **Dental Careers** • requirements for dental careers **Lifestyle** • positive lifestyle practices related to dental health
Safety & First Aid	**Babysitting Safety** • responsibilities • common injuries • childcare routines and play • safety rules **Outdoor Safety** • firearm safety **First Aid** • burns • poisoning **Lifestyle** • safety organizations and professionals • personal safety and first aid program	**Outdoor Safety** • survival safety boating safety • sports safety **First Aid** • frostbite/hypothermia • head/eye injuries diabetic emergencies • epileptic secures/convulsions • fainting **Lifestyle** • importance of first aid • personal safety and first aid program	**First Aid** • artificial respiration • choking • external/internal beading • shock • unconsciousness • fractures, sprains, dislocations • heart attacks, strokes • poisoning **Lifestyle** • leading causes of injuries/accidental death • personal safety and first aid program
Alcohol & Other Drugs	**Drugs** • methods of taking drugs • different categories of drugs • traditional medicine **Alcohol** • different types of alcohol • metabolism of alcohol • effects of alcohol • reasons for using/not using alcohol **Cannabis** • cannabis and the body **Well-Being** • peer pressure and drug use • positive role models	**Drugs** • dangers of combining drugs • advertising influences decisions about drug use **Alcohol** • historical use of alcohol • use, misuse, abuse of alcohol community resources for alcohol problems • teenage alcohol problems • fetal alcohol syndrome • advertising influences decisions about alcohol use **Cannabis** • physical and psychological effects of cannabis • cannabis and the reproductive system	**Drugs** • drug groups • side effects of drugs • drugs and the law **Alcohol** • alcohol and the law • The Young Offenders' Act • local control of alcohol **Well-Being** • personal attitudes towards drug use

TIME ALLOCATION

Effective September 1987, Health Education will become a required part of the school curriculum.

During the first year of implementation, teachers will implement 40 hours of the program. Thereafter, the recommended minimum time allocation for health education will be 60 hours per year for Grade 1 to Grade 9 students. (Since many Kindergarten students attend school for only half a day, it is not possible to recommend 60 hours for that Grade. However, health education should be taught in Kindergarten.)

This means approximately 90 minutes per week for a school with a 190 day school year,

- or 3 x 30 minute lessons per week at the elementary level
- and 2 x 45 minute lessons per week at the junior high level.

The following recommended hourly time allocations apply to each unit: Teachers should note that time requirements for Nutrition, Dental Health and Safety and First Aid have been calculated; however, these units will not be available until September 1988.

Differences in age, experience, language proficiency and developmental level will influence each student's learning. Some students may require enrichment activities or additional assistance. Some lessons will take more than one class period, but allowance has been made in the time allocations for this to happen.

Since Mental and Emotional Well-Being is the basic skill-building unit, and since Growth and Development contains much of the information about the body systems, the Department of Education recommends teaching these two units prior to introducing any other unit.

UNIT	**GRADE**								
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
Mental & Emotional	10	10	10	10	10	10	10	10	10
Growth & Development	10	10	10	10	10	10	8	8	8
Family Life	10	10	10	10	10	10	12	12	12
Alcohol & Other Drugs	6	6	6	8	8	10	10	10	10
Nutrition	8	8	8	8	8	6	6	6	6
Dental	8	8	8	6	6	6	4	4	4
Safety & First Aid	8	8	8	8	8	8	10	10	10

THE LESSON FORMAT

The program is laid out in an easy-to-follow, easy-to-use format. Each lesson indicates the **unit name, the grade level, lesson number and theme:**

e.g., Growth and Development
Grade 1 Lesson: 3 Theme: Body Systems

The ***concept*** for each lesson is clearly articulated at the start of the lesson. Concepts may be repeated within a single grade or between grades. The different objectives, however, ensure that students move from a basic understanding to a more advanced understanding of the same concept.

The ***preparation*** outlines all the tasks which a teacher will have to complete prior to teaching the lesson and all the materials or resources which are required for that particular lesson.

The ***vocabulary*** is not an all-inclusive list of words with which students should be familiar. Rather, it is a basic list of the terms which students will have to understand and be able to use in order to learn about the concept. Individual teachers are in the best position to determine the language needs of their students for each lesson.

The lessons, themselves, are divided into three columns:

- the ***objectives*****,** which are behavioural objectives students should achieve, once they have participated in the lesson;
- ***student activities*****,** which are suggested activities that teachers may use with their students to help them achieve the objectives. Teachers should select those activities which are most suitable for their class. They may have to adapt some for the particular students in their class. For younger grades, activities have been made as "hands on" and concrete as possible;
- the ***teacher notes*****,** which provide some basic information, as well as more detail for teachers on how to carry out activities.

At the end of each unit, on coloured pages, ***teacher background information*** provides more detail on specific topics.

The pages are numbered so that teachers who are looking for a particular lesson will be able to locate it easily.

Each unit has reference letters:

ME - Mental and Emotional Well-Being
GD - Growth and Development
FL - Family Life

Following the reference letter is a number which indicates the lesson number in a particular unit e.g., ME 3 means the third lesson of the Mental and Emotional Well-Being Unit for that particular grade.

The next number indicates the overall page of that unit, e.g., ME 3.12 means the third lesson of the Mental and Emotional Well-Being Unit, the twelfth page of the whole unit. So in other words, teachers can look up the regular page number of each unit, or the lesson number.

Teachers should note that one lesson in the program may take more than one class period, depending on student's previous knowledge, experience and language proficiency. Allowance has been made in the time allocation for this.

APPROACHES TO THE TEACHING OF HEALTH

The methods which an individual teacher uses with this program are as important as the content. Since the program is designed to influence beliefs and attitudes, it is important for students to examine their own and other people's beliefs and attitudes. It is also important for students to practise, in simulated situations, the skills which they are developing, so that using these skills will become second nature to them in the real world. This involves students sharing opinions, feelings, beliefs and information. Both classroom atmosphere and methods will contribute to the success of the program.

BUILDING A POSITIVE CLASSROOM ATMOSPHERE

The success of this program will depend on the establishment of a positive classroom atmosphere, where students and teachers feel comfortable with each other when discussing personal or sensitive issues.

A number of factors will contribute to this positive classroom atmosphere:

- an attitude of mutual respect, where "put-downs" are not acceptable;
- a non-judgemental atmosphere, where each person's opinion is valued;
- openness, honesty and trust by teacher and students;
- confidentiality, where students are not afraid that opinions or information are discussed openly outside the class.

Prior to starting the lessons, teachers should discuss with students the importance of each of these factors. Teachers should remind students of them regularly throughout the lessons.

In the Family Life Unit, students may demonstrate initial embarassment with the topic by giggling or laughing. This is often because they feel uncomfortable with discussing the topic of sexuality. These feelings will diminish.

- as they become more familiar with the subject;
- if other factors outlined above are contributing to a positive classroom atmosphere;
- if the teacher is comfortable with the subject.

THE TEACHING OF VALUES

Health Education, and especially the Family Life component, cannot be taught without discussing values. The School Health Program uses universal values as the basis for decision-making on any health-related matter, including sexuality.

The program focuses on these values:

- a sense of caring
- respect for self, family and others
- kindness
- honesty and justice
- compassion
- non-exploitation

All units of the program encourage respect for family and cultural values, religious beliefs and the law.

Teachers are encouraged to ask groups of resource people with different points of view to present their views on controversial issues to older students. For example, a discussion on birth control may take the form of a panel discussion, where the members include people with differing opinions. This provides students with the opportunity to listen to other people's opinions, to question them and to think about the expressed opinions in a respectful atmosphere.

Teachers must be alert to the dangers of imposing their values on students. Being non-judgemental will encourage students to be more open.

APPROPRIATE TECHNIQUES FOR TEACHING HEALTH

A number of teaching techniques are particularly appropriate for this program.

1. *Small Group Discussion*
   Dividing students up into small groups encourages free discussion. It encourages students who are reluctant to speak out in a large group to feel more comfortable, and also gives students an opportunity to learn from each other.

   Successful small group discussion depends upon:
   - encouraging students to take a risk in sharing information
   - establishing rules at the beginning of the sessions e.g.,
     - no insults or put downs
     - only one person talks at a time
     - show respect for each other's opinion
     - everyone gets a turn, but may choose to pass
   - thinking about the composition of the groups e.g.,
     - is there a competent leader?
     - is there an even mix of the sexes?
     - is there a mix of extroverted and introverted children?
   - starting to use small group discussions at a young age, so that students become used to this method of sharing
   - always concluding the activity by asking one person from each group to report its discussion to the rest of the class.

2. *Brainstorming*
   Use brainstorming to solicit ideas or opinions from the students. Gather as many opinions as possible, without making any value judgements on them, This allows for the free flow of ideas. Write the suggestions on the chalkboard or flip chart paper. After brainstorming, categorize and discuss the ideas. This is often effective in small groups.

Five rules of brainstorming to remember are:
- do not evaluate the ideas until after the brainstorming session;
- quantity is more important than quality
- list as many ideas as possible in a given length of time;
- expand on the ideas of others
- if someone else's idea prompts another idea, share it;
- encourage creativity; and,
- record all ideas.

3. *Roleplaying*
   Roleplaying is an essential element of any program which influences attitudes and behaviours. Not all teachers, or all students, feel comfortable using roleplay. However, there are some steps to follow which will increase the success of this method: - decide on the topic of the roleplay; - start by using volunteers; - discuss the scenario to be acted out. Help the students to understand what to look for; - discuss each person's part, using a hypothetical situation. Ask students how the person would feel, and what the person would say or do in that situation; - have the students act out the scene; - always finish the roleplay with a discussion about the different people in the scenario, their feelings and possible alternatives; - the more frequently you use roleplay as a teaching method, the more proficient the students will become and the more successful it will be; and, - if role play is not successful the first time, do not give up. Try again!

4. *The Question Box*
   When dealing with topics of a sensitive nature, such as those in the Family Life Unit or the Alcohol and Other Drugs Unit, students may be reluctant to ask questions publicly. Use of a question box allows students to ask questions anonymously, and facilitates discussion of a difficult topic which students wish to bring up.

   At the end of each class, or at the end of a particular session, let students know that they will be able to write down any question which they wish to ask and to put it into the question box anonymously. At the beginning of the next class, the teacher will respond to the questions in the box.

   Another effective use of the question box is to ask students at the beginning of the sessions to write down questions which they wish to have answered during the classes. This allows the teacher to structure the program around the needs of the students.

THE LANGUAGE DEVELOPMENT APPROACH AND THE N.W.T. SCHOOL HEALTH PROGRAM

Who Should Use the Language Development Approach

Students in the Northwest Territories come to school understanding and speaking a number of different languages. Where appropriate, where possible and where mandated by parents and/or L.E.A.'s, teachers should instruct students in Health Education classes in the language in which they are most proficient.

In some communities, students are not proficient in their first language, parents do not want instruction in the first language, or staff, programs and materials are not available to teach in the first language. In those situations, schools instruct Health Education classes in English. Because students in these communities may not be proficient in the English used to teach the curriculum, teachers of Health must take the time and make the effort to teach students the language required to talk, read and write about Health concepts. Success in the Health Education program is not otherwise possible.

The Department of Education directs the use of the Language Development Approach for students who are not proficient in English when it is the language of instruction and for students who are learning English as a Second Language. It is the responsibility of teachers at all levels to use the Language Development framework when preparing their own lessons or presenting lessons provided in the Health units.

What is the Purpose of the Language Development Approach?

The primary purpose of the Language Development Approach is to provide students with the vocabulary and sentence patterns necessary to succeed in school and, in this program, to learn about health concepts. A related aim is to help students develop thinking skills and to use the language of instruction for a variety of purposes: to imagine, to investigate, to explain, to describe, to question, etc.

A second purpose of the approach is to help students learn the vocabulary and sentence patterns required to communicate in various social situations. It provides them with opportunities to learn to use additional language to satisfy needs, to regulate personal behaviour, and to establish and define social behaviour. This purpose is secondary because many students have a first language to use to fulfill these purposes.

The Principles of the Language Development Approach

The Language Development Approach draws on elements of many traditional and contemporary practices in first and second language teaching to form the following set of principles on which to build classroom practice:

1. ***Students need to have their experiences, skills, knowledge, and, particularly, the language they bring to school identified and used as the basis for the school language program.***

   This means the Health Education Program should identify and relate new concepts to the students' past experiences, previous knowledge, and immediate environment. Studies indicate that when teaching does not relate to students' everyday lives or existing ideas, little learning takes place.

   In the cross cultural classroom of the N.W.T. and with sensitive issues such as family life, it is particularly important to determine students' ideas, family values and relevant experiences, before teaching the lessons.

2. ***Students need to learn to articulate for themselves and to communicate their thoughts, feelings, needs, opinions, and intentions for a variety of purposes in many different communication contexts. They need to be able to understand, learn from and respond to the communication of others***.

   This involves being able to: - express/inquire about personal needs, desires, feelings, attitudes etc. - socialize - direct the actions of the self and the actions of others - impart and seek factual information on past and present experiences - reason logically - make and express predictions - project into the experiences, feelings, and reaction of others - determine and express intellectual attitudes - evaluate

The Health program should involve students in a variety of activities which require them to use language in all these ways. Traditional paper and pencil exercises must be extended to include graphing, interviewing, reporting, researching, investigating, problem solving, etc,

3. ***Students need to learn language to communicate, but they also use language to learn. Therefore, language should be taught across the curriculum***.

   The Health Education program should teach second language students the language they require to learn about new concepts. Success in Health is not possible otherwise. This may mean teachers cannot cover all concepts for all topics. It is preferable to cover some concepts for all topics rather than omitting some topics altogether.

4. ***Second language students need to spend more time learning to communicate in the language of instruction than they do learning about the language of instruction.***

   The time spent in Health Education teaching students language should be devoted to introducing, practising, and applying the vocabulary and sentence patterns students require to talk, read, and write about a concept.

5. ***Students need to learn language that is meaningful. It is easiest to accomplish this when teaching language in a context. Without adequate concept development, the language students learn is either vague or devoid of meaning.***

   The Health Education program should take the time to ensure that students learning new concepts have enough first hand or indirect experiences with the concepts to understand them clearly. There is no point in students studying material they don't understand. If teachers do not make the material understandable, students will supply their own meanings. These may or may not be appropriate!

6. ***Students need to learn to develop their thinking skills and to engage in more abstract levels of thoughts as they mature. They must learn the language that allows them to express their thinking about concepts. Initially, they need to learn the concrete vocabulary and functional sentence patterns which enable them to recall, match, sequence, classify, etc. Eventually they need to learn more complex sentence patterns so that they can generalize, analyze, hypothesize, imagine, predict and evaluate.***

   The Health Education program for primary students should concentrate on teaching and using concrete thinking skills. The Health Education program for older students should introduce more abstract thinking skills as students can handle them.

7. ***Students need to participate in language activities that integrate the language strands of listening, speaking, reading and writing. Specific skills taught will vary with the proficiency level of the students. Reading and writing activities should use language which students have internalized aurally/orally.***

   The language activities in the Health Education program should include all four language strands. Students who cannot talk about a concept will have difficulty reading and writing about it.

8. ***Students need to learn "real" language and how to use it in the natural situations in which it is required.***

   The language included in the Health Education program should be as close as possible to the everyday vocabulary and sentence patterns people actually use to talk or write about a concept. Students need to get into the community to use the language they are learning with people outside the classroom.

Program content, classroom organization and teaching techniques used to develop concepts and skills should:

a) reflect all the above principles
b) vary according to
    - the language proficiency of the students in the first and second language
    - cultural background (experiences, interests)
    - age/grade levels
    - type of topic
    - learning style of students
    - materials and equipment available
    - teaching style of teacher

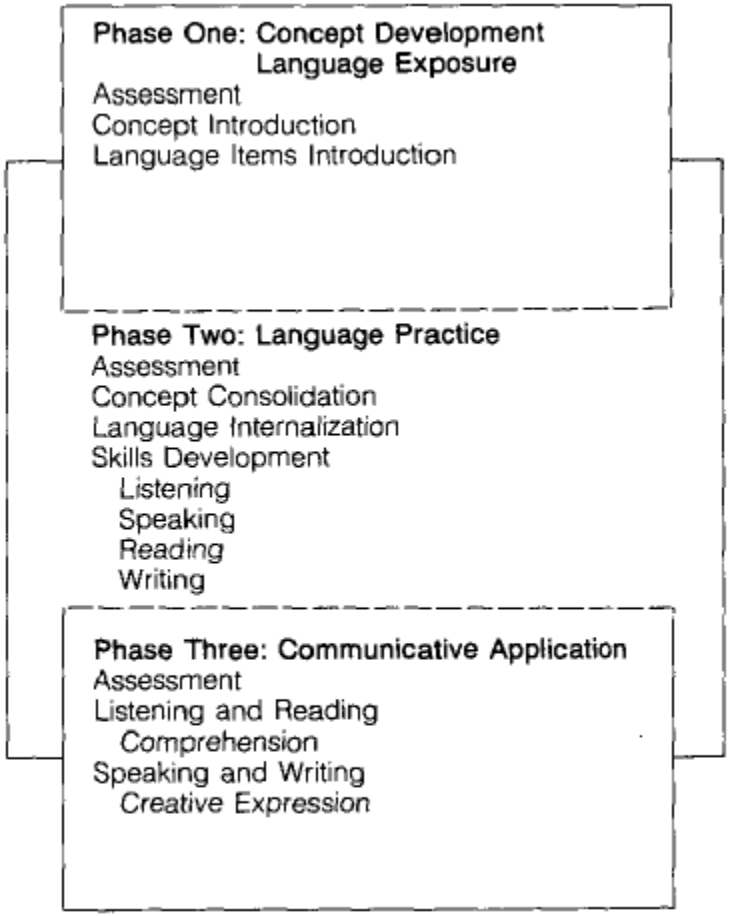
These principles are also valid for students who speak English as a first language. The difference lies in the methods and techniques used. Although designed for second language students, the Language Development Approach allows flexibility in choosing specific classroom practices and techniques to meet the varied language needs of students.

LANGUAGE DEVELOPMENT FRAMEWORK

The Language Development Approach uses the following framework to structure lessons involving conceptual development and language learning for any subject area or for topics of personal interest or cultural relevance.

Intellectual Skills

- Perceiving
- Retrieving
- Recalling
- Matching
- Sequencing
- Classifying
- Comparing/Contrasting
- Generalizing
- Inferring
- Predicting
- Interpreting
- Hypothesizing
- Imagining
- Applying
- Analyzing
- Synthesizing
- Evaluating



Based on the work of Jim MacDiarmid
Adapted by B. Pugh and C. McGregor

How to Develop a Language Development Unit

1. Identify the topic of study from the Health Education program.

2. Determine the key concepts and sub-concepts for the topic. Use brainstorming, semantic mapping, or content diagramming to outline these concepts for your own reference.

3. Assess and predict what experiences, knowledge, interests and attitudes students already possess which you can relate to the concept and subconcepts of the topic through:
   - observing the activities in the community in which students engage;
   - determining previous school experiences students have had with respect to the topic;
   - talking with classroom assistants, parents, L.E.A. members, older students, etc.;
   - observing students in the classroom.

4. Determine what materials and resources are available in the school and community to teach the key concepts and sub-concepts.

5. Brainstorm techniques and activities that you can use to teach the concepts and sub-concepts of the unit. Keep in mind the cognitive maturity, proficiency level, and background experiences of the students in the class.

6. Brainstorm the language items (vocabulary and sentence patterns) that students need to know in order to understand and discuss the concepts and subconcepts of the topic.

7. Determine other language items students may need to know in order to carry out the activities.

8. Predict which language items students already know. Predict language items students have in their linguistic storehouses that you can use to introduce the concept specific language.

9. Plan an initial assessment activity that identifies which experiences, concepts and language items students already have for the topic.

10. Plan specific lessons to teach key concepts, subconcepts and associated language.

11. Plan culminating activities which provide students with opportunities to consolidate and use knowledge and language learned throughout the unit. These can be sharing sessions with other classes, parents or community members.

12. Plan activities that evaluate student progress; these should determine what they have learned from the unit in terms of concepts, attitudes, skills and language items.

How to Plan Language Development Lessons

Plan specific lessons to teach key concepts and subconcepts using the Language Development Framework.

Concept Development/Language Exposure Activities

Choose concept development activities that help students relate previous knowledge to the topic of study or fill gaps in that knowledge. These activities should involve direct, first-hand, active learning with concrete materials as much as possible. Where necessary, use indirect experiences (films, filmstrips, pictures, etc.) to allow students to move beyond the confines of the immediate classroom to explore concepts associated with other times and places. Plan several activities which introduce and reinforce the concepts in different ways.

While students learn about the concepts, activities should also introduce them to new language items which express the concepts. The activities should help students to associate new vocabulary with relevant objects or actions and to express the relationships among concepts with appropriate sentence patterns.

Language Practice Activities

In this part of the lesson, students use the new language items introduced in concept development activities in a variety of activities that develop listening, speaking, reading, and writing skills. Through intensive practice of items in a variety of ways, students come to "own" the new language, i.e., commit it to memory so that it becomes part of their permanent storehouse of language items. These activities should also strengthen the bond developed between the new concepts and the language items that represent those concepts. While the whole class may participate in most of the concept development activities, it is important to group students for language practice according to their language needs and skills. During these group activities you can assess how well students are mastering new language items.

Communicative Application

The final phase of the lesson sequence includes opportunities for students to use their acquired knowledge and language to communicate in a variety of situations. Students wilt demonstrate that they have understood the new concepts and can use the new language items by interacting with others. Activities should involve students in listening, speaking, reading, and writing to solve problems, bridge an information gap, share information, complete a task, develop an arts and crafts project, or share a finished product, These activities will provide students with an opportunity to explore related concepts and language, eventually coming full circle to new concept development and language exposure. While students complete these activities, the teacher can meet individually with students to assess the extent to which they have mastered the concepts and language from the lesson.

Intellectual Skills

An essential component of the framework is the development of intellectual skills. Learning new concepts and language involves thinking skills. On the other hand, the ability to think abstractly involves conceptual and linguistic knowledge.

In the Concept Development/Language Exposure phase, plan assessment activities that establish whether or not students have basic building block concepts and language to engage in more abstract thinking about a topic. Subsequent activities can fill gaps and/or extend the students' background. The structured nature of Language Practice activities demands less high level intellectual activity. Answers are more convergent in nature; the information readily provided or available. However, Communicative Application activities should involve more divergent thinking. Students can draw on what they already have learned during the previous two phases to bridge an information gap or solve a problem.

INITIAL ASSESSMENT ACTIVITIES

In order to help teachers assess where to start with the program, the following activities should be done before teaching each lesson. They will assist in determining:

- what students already know about the concepts and therefore where instruction should begin;
- what interests students have in the topic and therefore the direction the unit should take; and,
- what language students already have to discuss the topic and what language they require.

One of the basic principles of all good teaching is that teachers should start with the student when planning and carrying out a unit. Before beginning the unit, it is important to assess students' knowledge of and interest in the topic. Teachers should determine what students already know about the topic/concepts they intend to cover. What ideas do students already have? What misconceptions do they have which must be addressed? What gaps are there in their knowledge which require teaching certain lessons? What concepts do students know well enough so that teachers can skip the lessons which teach those concepts? What questions do they have? What relationships do they see between different aspects of the topic?

It is also important to identify what experiences students have which relate to the topic/concepts. By identifying these and building upon them in the lessons, teachers can help students relate the new ideas and information to their own lives. It is important for them to do this because it assists students to internalize new concepts. It helps students make the concepts part of the conceptual framework which they use to understand and describe their world. If they do not have concrete, firsthand experiences to relate to each concept they will have to be provided with them wherever possible.

Another use for these activities is to help teachers identify particular interests of individuals, groups of students, or the whole class. They can then include activities in the lessons which involve student interests, thereby increasing motivation for them to participate and learn. Teachers may decide to add, substitute or omit some lessons because of students' interests.

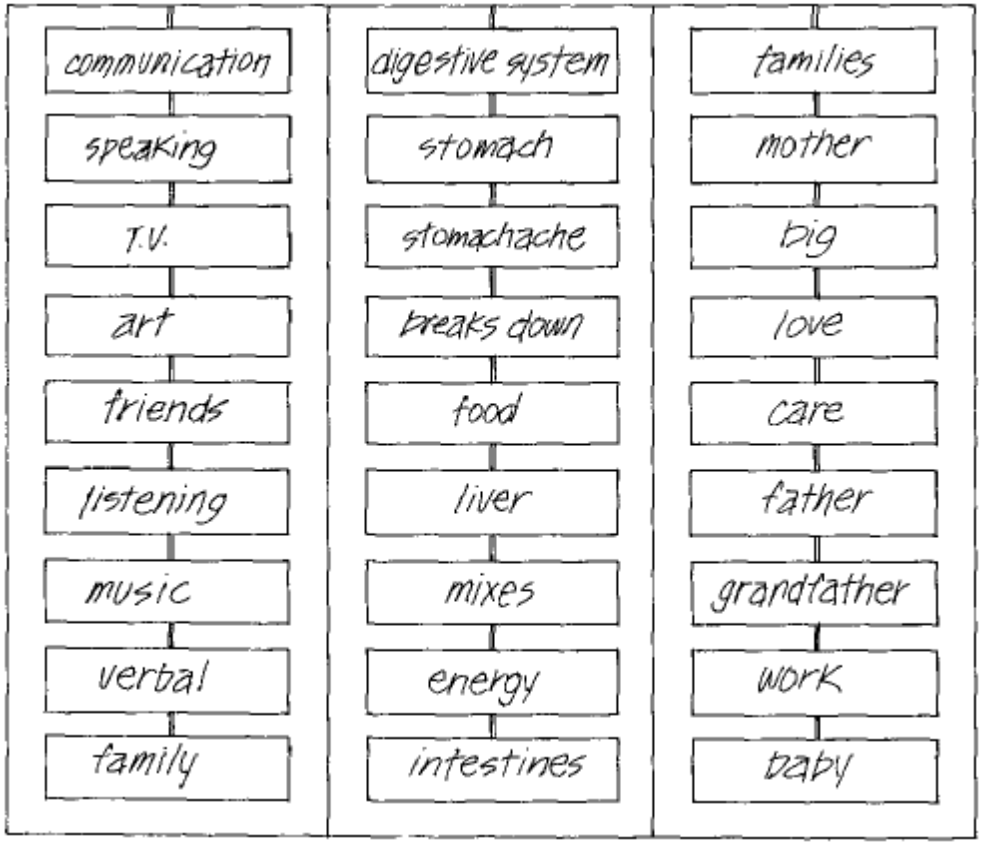
These activities will also help determine what language students have to discuss the topic, i.e., what vocabulary items students already know and what associations they have for each word. It is important to ascertain the meanings students attach to words; sometimes their interpretations may be surprising! If they do not clearly understand terms or if they use them incorrectly, it will prevent them from understanding and incorporating the concept into their mental framework.

Each unit in the School Health Program has a number of different themes. Teachers should select assessment activities suitable for that particular theme. The examples are for themes from each unit: Mental and Emotional Well-Being, Growth and Development and Family Life.

1. Brainstorming

Mental and Emotional Well-Being	**Growth and Development**	**Family Life**
Communication Ask students: "What do you know about communication?"	The Digestive System Ask students: "What do you know about the digestive system?"	Families Ask students: "What do you know about families?"

Answers can be recorded on cards and hung on masking tape strips (sticky surface up) which can then be fastened to the wall or the chalkboard.



If students have difficulty with this activity you may wish to direct their thinking or prompt ideas by asking more specific questions:

Why do we communicate? How do we communicate? With whom do we communicate?	What body parts are part of the digestive system? What do they do? Where are they found? How do we take care of them?	What kinds of families are there? How are families alike? How are families different? Who are in families? What do families do?

Encourage students to predict answers to these questions even if they are not sure of the exact responses. It might be interesting to record their predictions separately and compare them to the actual answers as they study the unit. Students may think of their own questions as well. Teachers can keep a list of all the questions the class cannot answer to focus the lessons they teach during the unit.

After recording their responses on the cards, *teachers should* have students chant the words with them and talk about the words:

- Which word is the most interesting?
  - the least interesting?
  - the most puzzling?
- What other word can you think of that means almost the same thing?
- What comes to your mind when I say _____?
- What do you think this word means? Etc.

2. *Categorizing*

Teachers can distribute the word cards from the brainstorming sessions ensuring that they tell students the words they give them. Younger students should receive only one card at a time so they will not get confused. One student places his/her word card at the top of one of the masking tape strips and tells the word to the class. Teachers ask if there is anyone else who has a word that belongs with the first word and have another student place his/her word card under the first, read the word and explain why it belongs with the first word. The class can give a title to these two cards which now form a category. Teachers can then ask it anyone can start a new category. When students have placed all of the brainstormed words in categories, the class can discuss the titles and change them if necessary. Students can then chant the words in each category. Teachers can transfer the words to a flowchart to provide a permanent reference.

Communication	The Digestive System	Families
Different ways of communicating	Body parts	Who is in them?
verbal non-verbal speaking listening music art	stomach intestines liver mouth esophagus	mother father baby grandmother
With whom	What they do	What do they do?
friends family teacher people at work	squeeze mix break down move	play work love care
Kinds of communication	Problems	What size are they?
aggressive assertive passive	stomach ache nausea diarrhea	big small

As teachers progress through the unit they may wish to add new information to the chart. They may also identify new questions and hopefully, the answers. At the end of the unit they can review the chart with students and keep it as a reference for future use.

SAMPLE QUESTIONS:

Teachers can use these questions during the initial assessment activity to determine what experiences, interests, language, and knowledge students have about the topic. They can also use the questions during discussions in the lessons for evaluation.

Questions for Assessing Experience:

1. Have you been in a situation where _____?
2. What do you know about _____?
3. Have you ever seen _____?
4. Have you ever experienced _____?
5. Have you ever been _____?
6. Have you ever done _____?
7. Has something like this ever happened to you _____?
8. When was the last time you _____?

Questions for Assessing Language:

1. What do you think these words mean _____?
2. Can you give me another word that means _____?
3. What comes to your mind when I say _____?
4. Have you heard of the word(s) _____?
5. What words can you think of when I say the word _____?

Questions for Assessing Thinking Processes:

Cognitive Memory (details, information)

1. Who _____?
2. What are the facts _____?
3. What are the most important details _____?
4. What is the _____?
5. What do you mean by _____?
6. What is your interpretation of what happened? (What do you think happened?)
7. When?
8. Where?

ConvergenUGeneralization (getting the main idea)

1. What are the chief points?
2. Given that information, what is the main idea?
3. What is the single most important idea?
4. State the idea in one sentence.
5. Explain _____

Structuring/Relating (arranging relationships)

1. Categories:
   Which group does that belong to?
   How would you classify _____?
   What type would you _____?
2. Comparisons: How are they alike? same? similar? identical?
3. Contrasts: How is it different? in opposition to? unlike?
4. Cause and Effect: What will happen if? Why?
   What will happen as a result of?

Divergent/Using/Applying

1. What might happen if _____?
2. It you use that idea, what would it mean for _____?
3. Apply that idea to our (this) situation.
4. What would result if _____?
5. If you were given these facts, what would you do to _____?
6. How would it be different if we used this idea?
7. What could the advantages/benefits be if we applied this idea/process?

EvaluationldudgingNaluing

1. How do you feet about this idea?
2. What is your opinion?
3. What is the best _____?
4. Are you satisfied with that answer/plan?
5. Can this statement be made? Why?
6. Out of all the information, what can be used to prove your point?
7. How would you judge?
8. What is your opinion or conclusion about the product/plan/idea?
9. Why did you think it worked/didn't work?
10. What is fact? What is opinion?

EVALUATION

Educators often use the word "evaluation" to mean "testing". Evaluation, however, is an integral part of all educational programs or processes. It includes any form of obtaining information about what students are learning and how effective the program is in achieving its goals.

We learn a great deal from effective evaluation, including:

- what concepts, skills and attitudes a student has learned;
- if a student has achieved the objectives;
- in which areas of the program a student is proficient,
- a student's grade level;
- if the program needs to be reviewed, revised or modified;
- if teaching methods are effective;
- if a student needs additional assistance;
- if a student considers the lessons relevant i.e., do the lessons relate to the world of the student outside the classroom?

EFFECTIVE EVALUATION

For effective evaluation, it is important:

- to link the evaluation to the stated objectives of the program;
- to include as many forms of evaluation as possible;
- to assess students in the cognitive, affective and psycho-motor domains; (in the Health Program, the affective domain is particularly important);
- to ensure that the forms of evaluation are appropriate to the student's developmental level and language proficiency and that they are culturally suitable;
- to ensure that the method of evaluation supports and reinforces goals of the program i.e., if one of the goals of the program is to enhance self-esteem, then the evaluation must include successful experiences which will contribute to that;
- to encourage students to take some responsibility for evaluation.

DIFFERENT APPROACHES TO EVALUATION

It is not possible in this document to include all the possible approaches to evaluation or the detailed information necessary for teachers to use each approach effectively, A more comprehensive effort will be made to address evaluation for this program at a later date.

The approaches included will give teachers some general guidelines on evaluation.

1. Pre-tests and Post-tests

In order for teachers to assess what students already know about a topic, and to determine the starting point for the lessons, it may be necessary to administer a pre-test. This pre-test should include items which assess skills, attitudes and behaviours, as well as specific knowledge.

By using the same test or a parallel test after teaching the lessons, teachers will be able to assess what knowledge students have acquired and any possible changes in individual attitudes and behaviours, e.g.,

i) Knowledge

	True	False
Tobacco contains a drug.	( )	( )

ii) Skills

John's friends want him to skip school. Use the decision-making process to show how he decides what he will do.

iii) Attitude/Beliefs

Daily exercise is important to me.

Agree	( )
Not Sure	( )
Disagree	( )

iv) Behaviours

I would eat candy or chips for a snack.

Most of the time	( )
Some of the time	( )
Never	( )

2. *Projects*

Projects are assignments given to individual students or to a small group of students. Usually they involve research on a specific topic within the program.

Projects allow students some freedom to express individuality and to demonstrate particular strengths.

A variety of activities can be incorporated into a project, e.g.,

- written report
- diagrams
- audio-visual material
- photographs
- models
- drama
- drawings
- graphs

It is important to structure the project carefully, and define the requirements clearly to ensure that it is manageable. Requirements should indicate:

- the objectives of the project; completion date;
- how the teacher will evaluate it;
- where to find information.

For example, a project on the "Health Care Worker in the Community" may include:

- a description of what the health care worker does;
- a photograph of the health care worker;
- a recorded interview with the health care worker and/or with community people who have regular contact with the health care worker;
- a video of the health care worker at work;
- a graph to show how much time the health care worker allocates to different tasks;
- telephone numbers;
- a map to show how to go to the health care worker's place of work; and,
- drawings of any special tools/instruments which the health care worker uses.

3. *Simulations*

The Health Education program provides for the acquisition of specific skills and knowledge, and gives the students opportunities to practise appropriate attitudes and behaviours. As a result, simulations are an appropriate way to determine student progress. Discussions of alternative solutions after roleplaying also provides an indication of student attitudes.

If students have learned different ways to resist peer pressure, they can demonstrate how to resist peer pressure in a given situation, e.g.,

Bill wants Mary to go to a party with him on Saturday. Mary's mother says she is too young to go to parties. Bill has told Mary he won't be her friend if she doesn't come.

Demonstrate how Mary resists the pressure from Bill.

4. *Observation*

We expect students' behaviour to reflect what they have learned so direct observation of students is an important method of evaluation. Students may not demonstrate some of the practices in the classroom, however, and so this observation must also occur in the community. Where and when appropriate, observation should include aspects of mental, physical, social activity, as well as intellectual practices of the student, e.g.,

If students have been discussing practices which promote safety in the playground, the teacher can observe students at play at recess to determine if they demonstrate use of safe practices outside the classroom.

5. *Checklist*

These are a simple method of recording observations usually made in the classroom. Checklists will not necessarily give a teacher information on a student's behaviour. Teachers can develop checklists for evaluating simulations, observations, discussions, etc.

E.g.,

Checklist for Group Discussions

	All of the time	Some of the time	Never
- listens without interrupting	( )	( )	( )
- shows respect for other people's opinions	( )	( )	( )
- participates readily	( )	( )	( )
- responds positively when questioned	( )	( )	( )
- questions others	( )	( )	( )
- etc.			

6. *Anecdotal Record*

Anecdotal records are brief comments on the teacher's observations. The information recorded is factual and non-judgemental - the evaluation of what was seen is noted after the observation is complete. The comments should be specific and related to the objectives of the program. Record both positive and negative examples, e.g.,

At recess, Sarah helped Margaret to come down from the climbing bars. She pushed James when he tried to help too.

7. *Self-Evaluation*

Students should also participate in the evaluation process by identifying what they learned from the lessons, what they are interested in, what they think is important for them to know more about, etc. One way of doing this is through a rating scale, e.g., I learned:

a lot some things nothing

I was most interested in: _____

I would like to learn more about _____

_____

_____

_____

8. *Student Notebooks*

By asking students to keep a health notebook, teachers can assess how well students understand concepts. It is important, however, to treat the notebooks with confidentiality. Students should be aware before they write in the notebook that the teacher will look at them. In particularly sensitive areas, such as Family Life, students may be reluctant to share notebooks with teachers, if not advised in advance.

NORTHWEST TERRITORIES

School Health Program

GRADE 7

Education, Culture and Employment
Health and Social Services

August, 1996

MENTAL AND EMOTIONAL WELL BEING

GRADE 7

LESSON NO.	THEME	CONCEPT	OBJECTIVES
			Students will be able to:
1	SELF- AWARENESS	Self-concept is how people feel about themselves	i) define self-concept ii) identify the factors that influence self-concept iii) identify characteristics of people with good and poor self-concept
2	SELF- AWARENESS	A positive self-concept is important in daily living	i) identify ways to enhance self-concept ii) design a personal program to enhance self-concept iii) evaluate the effectiveness of the program
3	RELATIONSHIPS	Effective communication is important in a relationship	i) identify skills involved in initiating, maintaining and concluding a conversation ii) practise initiating, maintaining and concluding a conversation
4	RELATIONSHIPS	Effective communication is important in a relationship	i) identify what criticism is ii) identify constructive and destructive criticism iii) identify the results of criticism
5	RELATIONSHIPS	Effective communication is important in a relationship	i) identify ways of giving and receiving criticism ii) practise giving and receiving constructive criticism

GROWTH AND DEVELOPMENT

GRADE 7

LESSON NO.	THEME	CONCEPT	OBJECTIVES
			Students will be able to:
1	BODY SYSTEMS	The skin supports and protects the body	i) describe the general characteristics of the skin ii) describe the structure of the skin iii) describe the functions of the skin iv) state the importance of the skin
2	BODY SYSTEMS	The skin supports and protects the body	i) describe common problem conditions and their causes related to the skin ii) describe ways to care for the skin iii) demonstrate proper skin care
3	DISEASE PREVENTION	Many health problems in adolescents can be prevented	i) identify common health problems of adolescents ii) describe ways to prevent common adolescent health problems
4	PHYSICAL FITNESS	Physical fitness is essential for optimal health	i) define physical fitness ii) identify the components of physical fitness
5	PHYSICAL FITNESS	Physical fitness is essential for optimal health	i) describe the benefits of being physically fit ii) describe ways in which each fitness component can be developed
6	PHYSICAL FITNESS	Physical fitness is essential for optimal health	i) assess their personal physical fitness levels ii) describe the structure of a well-planned physical fitness program iii) participate in a well-planned fitness program

FAMILY LIFE

GRADE 7

LESSON NO.	THEME	CONCEPT	OBJECTIVES Students will be able to:
1	FAMILIES	Families make important decisions about the roles and responsibilities of members	i) identify decisions which are made within the family ii) identify family decisions that affect the roles and responsibilities of its members
2	HUMAN DEVELOPMENT AND REPRODUCTION	Reproduction ensures the continuation of new life	i) identify the structure and function of the male reproductive system ii) identify the structure and function of the female reproductive system
3	HUMAN DEVELOPMENT AND REPRODUCTION	The development of reproductive cells is a normal occurrence in puberty	i) explain the process of menstruation ii) identify personal hygiene practices related to menstruation iii) explain the process of sperm development iv) identify personal hygiene practices related to the male reproductive system
4	HUMAN DEVELOPMENT AND REPRODUCTION	Human life begins with the union of an ovum and a sperm	i) explain the processes involved in the development of new life
5	TEEN DECISIONS	Adolescents make important decisions related to their own sexuality	i) explain the reasons for and against sexual involvement by young people ii) identify the advantages and disadvantages of sexual abstinence for young adolescents iii) explain why sexual abstinence is a responsible choice for young adolescents
6	TEEN DECISIONS	There are risks and consequences to maternal and child health related to adolescent pregnancy	i) identify the risks and consequences to maternal and child health related to adolescent pregnancy

7	TEEN DECISIONS	Effective use of assertiveness skills can help adolescents deal with sexual pressures	i) demonstrate the steps in the refusal process ii) describe assertive responses that allow a person to say 'No' to sexual pressure iii) explain how assertiveness skills can help adolescents deal with sexual pressure
8	SEXUALLY TRANSMITTED DISEASES	Sexually transmitted diseases are serious communicable diseases that can be prevented	i) define sexually transmitted diseases ii) identify the causes, characteristics, consequences, treatment and prevention of chlamydia iii) identify the causes, characteristics, consequences, treatment and prevention of gonorrhea
9	ABUSE PREVENTION	Sexual assault is a criminal offence	i) define sexual assault ii) distinguish between fact and fiction on sexual assault iii) describe the consequences of assault and sexual assault for the victim and the offender iv) identify behaviours that help prevent sexual assault
10	LIFESTYLE	Positive lifestyle practices promote health	i) identify positive lifestyle practices that promote healthy sexuality and family relationships ii) design a personal program to promote healthy sexuality and family relationships iii) evaluate the effectiveness of the program

NUTRITION

GRADE 7

LESSON NO.	THEME	CONCEPT	OBJECTIVES
			Students will be able to:
1	FOOD CLASSIFICATION	The NWT Food Guide recommends variations in the number of daily servings	i) identify the recommended numbers of daily servings for different age groups ii) identify factors that influence variations in number of servings
2	FOOD SELECTION	Family needs and preferences influence the planning and preparation of nutritious meals	i) identify some criteria to use in menu planning for people of different ages ii) design a variety of daily menus that reflect the needs of different family members
3	FOOD CONSUMERISM	Many factors influence consumer food decisions	i) explain how advertising affects food choices ii) identify various factors that influence food choices of consumers
4	FOOD CONSUMERISM	Food additives are chemicals that are put in food for a variety of reasons	i) describe what is meant by a food additive ii) list some food additives and their functions iii)explain the advantages and disadvantages of food additives
5	FOOD APPRECIATION	A willingness to experience foods with few additives promotes food appreciation and health	i) plan and prepare a meal based on the NWT Food Guide using food items with few additives ii) demonstrate a willingness to experience meals with few additives

DENTAL HEALTH

GRADE 7

LESSON NO.	THEME	CONCEPT	OBJECTIVES
			Students will be able to:
1	FACTORS AFFECTING DENTAL HEALTH	There are a variety of dental emergencies which require appropriate first aid treatment	i) describe a variety of dental emergencies and the appropriate first aid treatments
2	DENTAL DISEASE	Dental health problems of children and youth are treatable and preventable	i) describe common dental health problems of children and youth ii) describe causes, characteristics, consequences, treatment and prevention of nursing bottle mouth

SAFETY AND FIRST AID

GRADE 7

LESSON NO.	THEME	CONCEPT	OBJECTIVES
			Students will be able to:
1	BABYSITTING	Babysitting is a serious responsibility and requires knowledge and preparation	i) list responsibilities of a babysitter ii) give examples of childhood injuries iii) identify safety rules to prevent common childhood injuries iv) outline how to handle emergencies while babysitting v) demonstrate first aid for spinal injuries
2	BABYSITTING	Different ages require different activities and communication	i) identify some age appropriate child care routines and play activities ii) identify and demonstrate age appropriate ways of interacting with children
3	FIREARMS SAFETY	Safe handling and storage of firearms and ammunition prevents injuries and death	i) research and report on the new Canadian gun law ii) describe the effects of the new gun law on different lifestyles in the NWT
4	FIREARMS SAFETY	Safe handling and storage of firearms and ammunition prevents injuries and death	i) identify appropriate uses of firearms ii) identify safe storage of firearms and ammunition iii) identify behaviour around firearms to prevent injuries and death
5	OUTDOOR SAFETY	Adherence to firearms safety rules and laws is the best method of injury prevention	i) identify safety rules and laws governing firearms ii) illustrate firearms safety rules
6	FIRST AID	First aid can minimize the injuries from burns	i) name four causes of burns ii) explain safety rules to follow that prevent injuries iii) describe the signs, symptoms and possible complications of burns iv) demonstrate first aid for burns caused by heat, corrosive chemicals, electricity and radiation
7	FIRST AID	Poisoning requires immediate first aid to minimize the injuries	i) describe the common causes of poisoning ii) list the four questions to ask to determine the history of a poisoning emergency iii) demonstrate first aid for poisoning

SAFETY AND FIRST AID

GRADE 7

LESSON NO.	THEME	CONCEPT	OBJECTIVES
			Students will be able to:
8	FIRST AID	It is important to recognize that some allergic reactions can be life threatening and to apply first aid	i) explain what an allergic reaction is ii) discuss the different types of allergies and their reactions iii) describe the signs and symptoms of allergic reactions iv) explain first aid for an allergic reaction
9	LIFESTYLE	There are different organizations and professionals who are valuable for personal safety and first aid	i) identify organizations and professionals who tram and deliver safety programs on snowmobiles, ATVs, boats, on the land survival, babysitting, firearms and first aid
10	LIFESTYLE	Positive safety and first aid lifestyles practices save lives and minimize the effects of injuries	i) design a personal safety and first aid program ii) evaluate the effectiveness of the program

ALCOHOL AND OTHER DRUGS

GRADE 7

LESSON NO.	THEME	CONCEPT	OBJECTIVES
1	DRUGS	A drug is anything that is put into the body that makes it work differently.	i) identify the various methods of taking drugs ii) explain the three types of dosages re: taking drugs
2	DRUGS	DRUGS (INCLUDING ALCOHOL, TOBACCO AND SOLVENTS) ARE PREVALENT IN SOCIETY TODAY	i) describe the prevalence of drug use in society ii) identify the different categories of drugs iii) identify why people choose to either use or not use drugs
3	DRUGS	TRADITIONAL MEDICINE IS A NATURAL METHOD OF HEALING	i) identify how natural medicines were used by people throughout time ii) describe the importance of traditional medicines
4	ALCOHOL	THERE ARE DIFFERENT TYPES OF ALCOHOL WITH DIFFERENT USES	i) describe why alcohol is a drug ii) explain the uses for the different types of alcohol
5	ALCOHOL	ALCOHOL PASSES THROUGH DIFFERENT PARTS OF THE BODY	i) explain how alcohol passes through the body
6	ALCOHOL	THERE ARE MANY FACTORS WHICH AFFECT THE METABOLISM OF ALCOHOL	i) identify the factors which affect the absorption rate of alcohol ii) identify the four stages in the metabolism of alcohol
7	ALCOHOL	DRINKING ALCOHOL HAS SHORT AND LONG TERM EFFECTS ON THE BODY	i) identify some short-term effects of drinking alcohol ii) identify some long-term effects of drinking alcohol
8	ALCOHOL	THERE ARE REASONS WHY SOME PEOPLE DRINK AND SOME PEOPLE DO NOT	i) identify reasons why some people drink alcohol and some people do not drink alcohol ii) demonstrate the ability to use the decision-making process in particular simulated situations which involve the drinking of alcohol
9	CANNABIS	CANNABIS IS A DRUG THAT IS ABUSED	i) identify cannabis as an illegal drug ii) describe how cannabis enters and passes through the body iii) examine their attitudes regarding the use of cannabis

LESSON NO.	THEME	CONCEPT	OBJECTIVES
10	SOLVENTS	SOLVENT ABUSE HAS SHORT AND LONG TERM EFFECTS ON THE BODY	i) identify some short-term effects of solvent abuse ii) identify some long-term effects of solvent abuse
11	WELL-BEING	PEER PRESSURE, ROLE MODELS AND ASSERTIVE SKILLS WILL INFLUENCE A PERSON'S DECISION ABOUT DRUG USE	i) explain how peer pressure can influence decisions about drug use ii) demonstrate ways of resisting peer pressure with regard to drug use
12	WELL-BEING	PEER PRESSURE, ROLE MODELS AND ASSERTIVE SKILLS WILL INFLUENCE A PERSON'S DECISION ABOUT DRUG USE	i) describe the importance of role models for youth with regard to decisions about drugs ii) identify individuals who are positive role models in their school, community and country

GRADE 7

MENTAL AND EMOTIONAL WELL-BEING

MENTAL AND EMOTIONAL WELL BEING

GRADE: 7 LESSON: 1 THEME: SELF AWARENESS

CONCEPT: SELF-CONCEPT IS HOW PEOPLE FEEL ABOUT THEMSELVES

PREPARATION:
1 Prepare an overhead transparency of Activity Sheet ME59A
2 Prepare a class set of Building My Self-Concept worksheet (Activity Sheet ME60)
3 Prepare enough Self-Concept Case Studies for several groups (Activity Sheet ME61)

VOCABULARY: self-concept, responsible, assertive, aggressive, passive, feelings vocabulary for good/poor self-concept

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
Students will be able to:	Students:	Background Information Page ME33 to ME35
i) define self-concept	1 Define the term `self-concept'	Use a dictionary and general discussion to define the term Self-concept is what a person thinks and believes about himself or herself It affects the way a person gets along with others and the way others get along with that person
	2 Describe a person with a good self-concept	Brainstorm examples of how a person with a good self-concept feels about him/herself and acts (Ask students to identify situations such as those listed on the chart, and then help them identify appropriate feelings)

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
ii) identify the factors that influence self-concept	3 Give examples of factors that influence self-concept	

A person with a good self-concept	S/he feels/is
- is not afraid to try new things - likes him/herself - helps others	- capable - loveable - valuable - worthy - likeable - responsible - respectful - helpful - reliable - assertive - considerate

Keep this chart for use with Student Activity 5

Ask students to identify situations in which they feel good/bad about themselves Record their responses on two charts as shown

I feel good about myself when:
- I am with my best friend - I wear new jeans
I feel bad about myself when:
- I fail a test - I pig out on junk food

Refer to Activity Sheet ME59A.

Using the overhead transparency, list each experience under the appropriate heading For example

"I feel good about myself when I am with my best friend" could be listed under the heading "People" as "best friend"

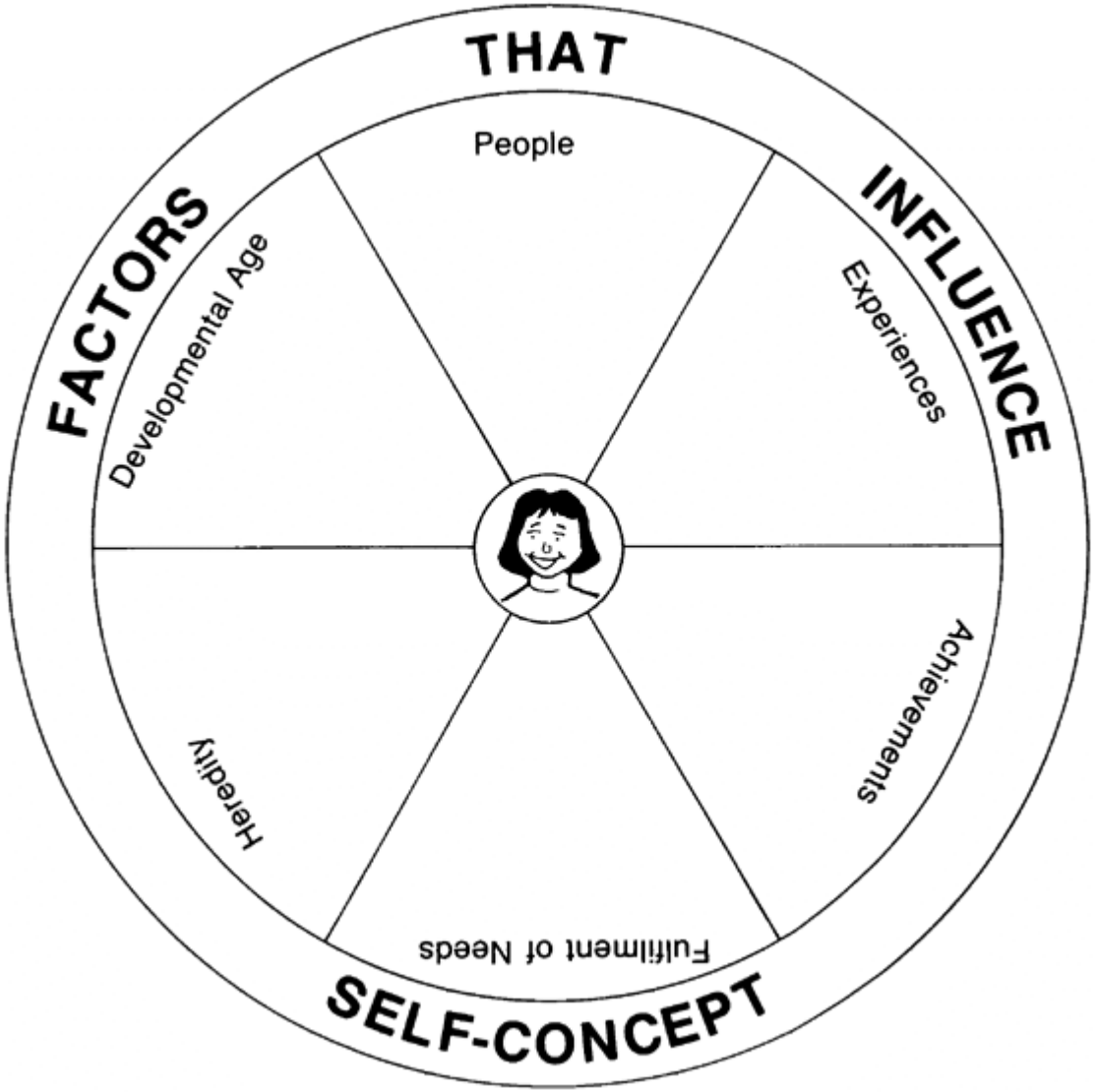
OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
		Possible answers are given on Activity Sheet ME59B
	4 Complete Building My Self Concept worksheet	Refer to Activity Sheet ME60 Have students identify positive experiences, people, etc , throughout their lives that have influenced their self-concepts e g , - hunting first moose with father - baking bannock - skating award - etc Students should refer to completed overhead ME59A to ensure that they consider all factors influencing self-concept Discuss responses
iii) identify characteristics of people with good and poor self-concept	5 Describe a person with a poor self-concept	Review the chart prepared for Student Activity 2 Have students identify the feelings of people with a poor self-concept Record student responses using a chart as illustrated

A person with poor self-concept	**She/he feels/is**
- may pick on other people - may have few friends - is always alone	- aggressive - disliked - lonely - irresponsible - inconsiderate - disrespectful - passive - incapable

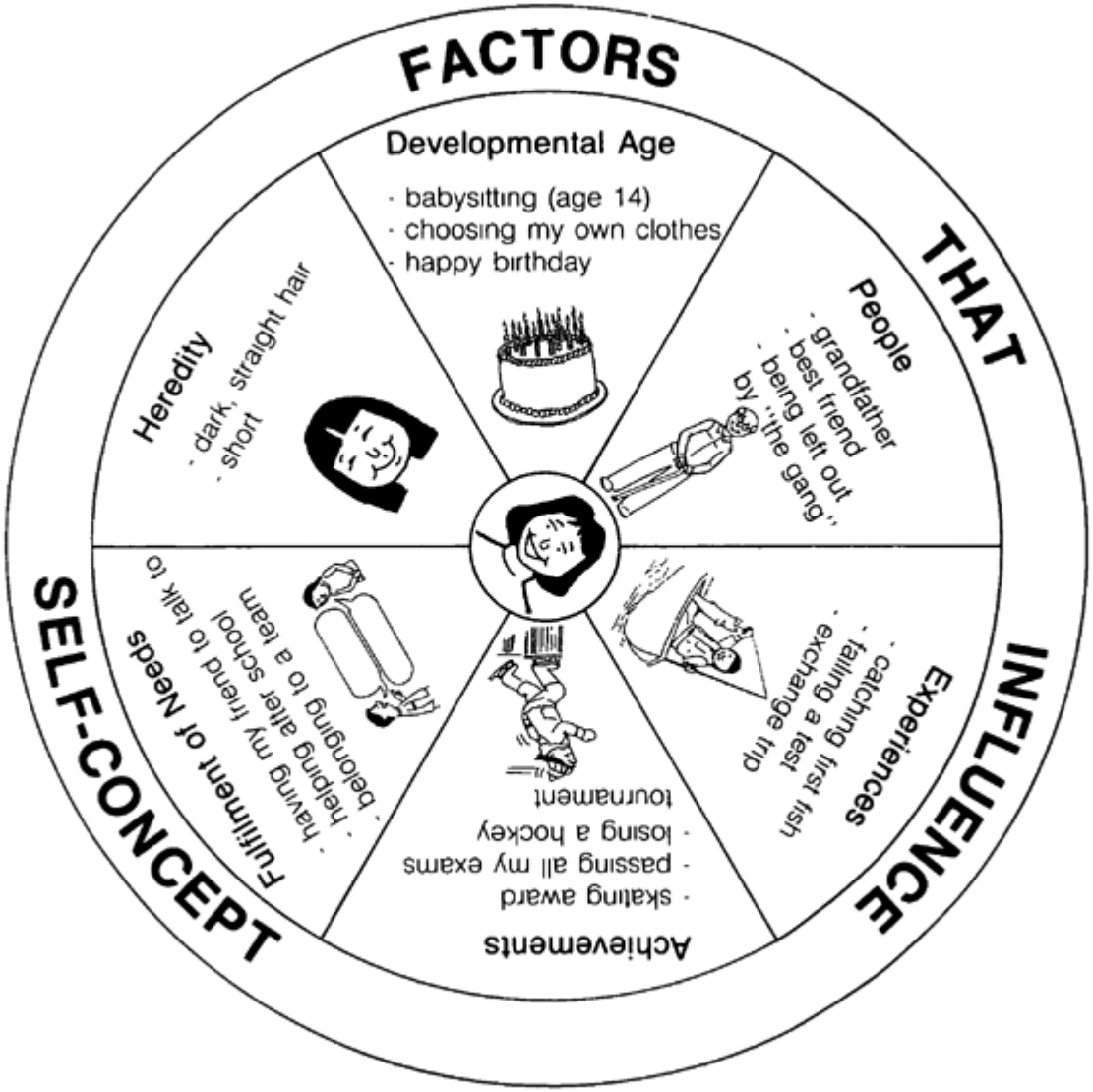
Keep this chart for use with Lesson 2

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
		Compare a person with a good self-concept and a person with a poor selfconcept Emphasize to students that people do not simply have a good self-concept or poor self-concept Everyone has things about themselves which they feel good about and things which they feel badly about
	6 Complete Self-Concept Case Studies worksheet	Refer to Activity Sheet ME61 In small groups, have each group select one or two case studies to examine Have students identify the behaviours and feelings of people with a good self-concept and a poor self-concept Record on the worksheet Have one student from each group report back to the class. Discuss

FACTORS THAT INFLUENCE SELF-CONCEPT

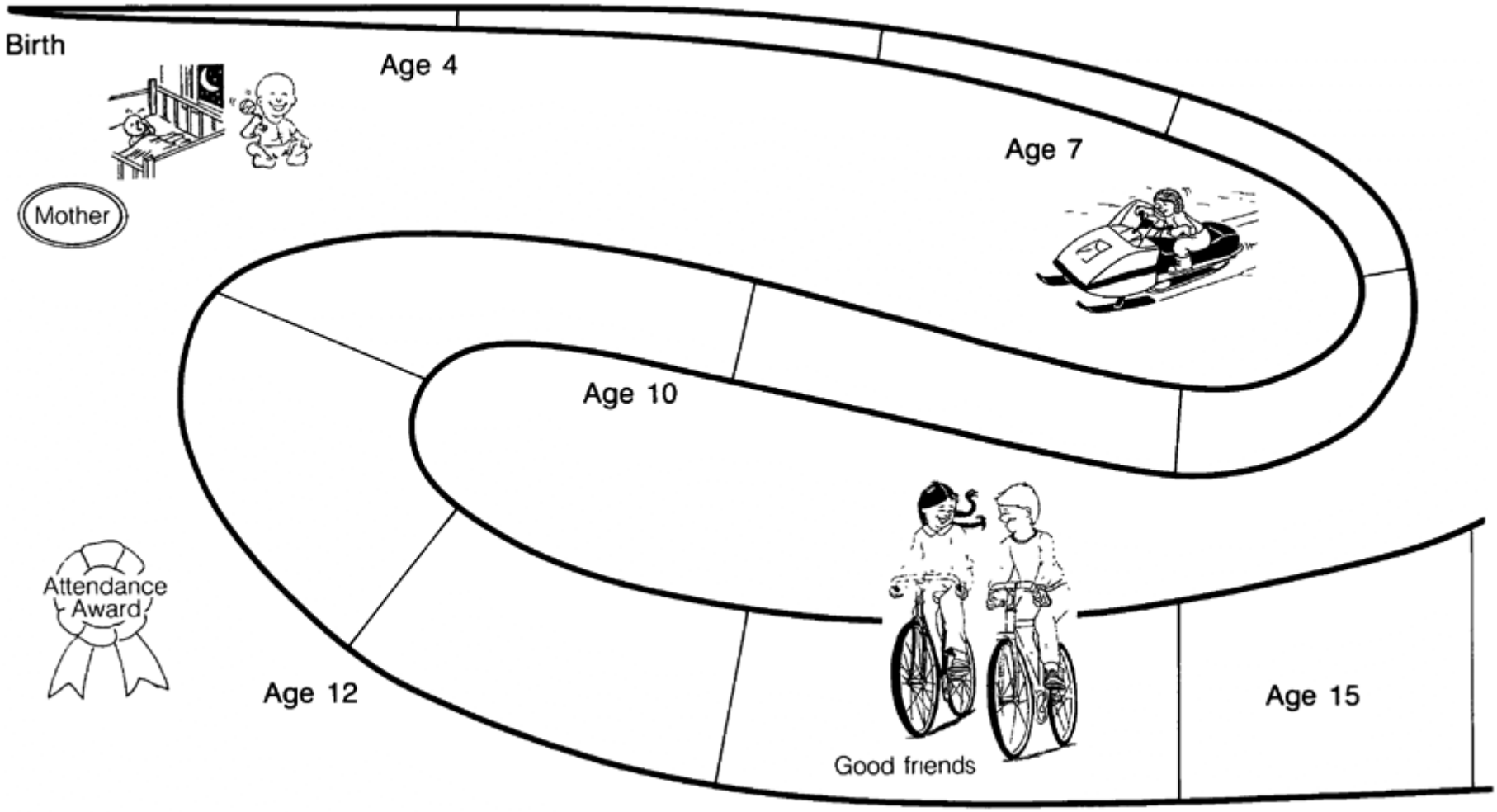


FACTORS THAT INFLUENCE SELF-CONCEPT



BUILDING MY SELF-CONCEPT

Draw and write about experiences and people who have helped you develop your self-concept.



SELF-CONCEPT CASE STUDIES

For each situation, record how a person with a good self-concept and how a person with a poor self-concept would feel and behave

	Good Self-Concept		Poor Self-Concept	
	Behaviour	**Feelings**	**Behaviour**	**Feelings**
1 It is the first day that the volleyball team meets for practice.				
2 A student has to present a report to the rest of the class				
3 A student has asked to join a group of teenagers on a trip to the arena and they say no				
4 It is a student's first day at a new school				
5 The teacher asks a student to stay after class to talk to him/her.				

MENTAL AND EMOTIONAL WELL BEING

GRADE: 7 LESSON: 2 THEME: SELF AWARENESS

CONCEPT: A POSITIVE SELF-CONCEPT IS IMPORTANT IN DAILY LIVING

PREPARATION: 1 Prepare a class set of Building My Own Self-Concept (Activity Sheets ME62A and ME62B)

VOCABULARY: goal, achieve, progress, evaluation

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
Students will be able to: i) identify ways to enhance self-concept	Students: 1 Describe ways to improve self concept	Background Information Page ME33 to ME35 Display the chart developed during Lesson 1, Student Activity 5 For each situation have students brainstorm possible ways to improve self-concept These may include - belonging to one or more groups - sharing responsibilities with family members - encouraging others - taking time to do an activity you enjoy - setting goals and working towards them - learning how to communicate assertively - recognizing your strengths and weaknesses

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
ii) design a personal program to enhance self-concept	2 Design a personal program to build their self-concepts	Refer to Activity Sheet ME62A Have students select one aspect of their lives where they have a poor selfconcept and then decide on a goal and devise a strategy to improve their self-concept Work individually with students to ensure that goals are **specific, measurable and realistic.** Compare for example these goals for a student who feels badly about not doing well in a test Poor goal "I'm going to do better " Better goal "I'm going to get 80% on my next test "
	3 Practise their personal programs for a given time period	Refer to Activity Sheet ME62B Have students record their own progress on a daily basis for a fixed length of time
iii) evaluate the effectiveness of the program	4 Describe the degree of success of their personal programs	Refer to Activity Sheet ME62B Have students refer to the evaluation data for their programs These programs can be continued over an extended length of time Goals can be altered as necessary

BUILDING MY OWN SELF-CONCEPT

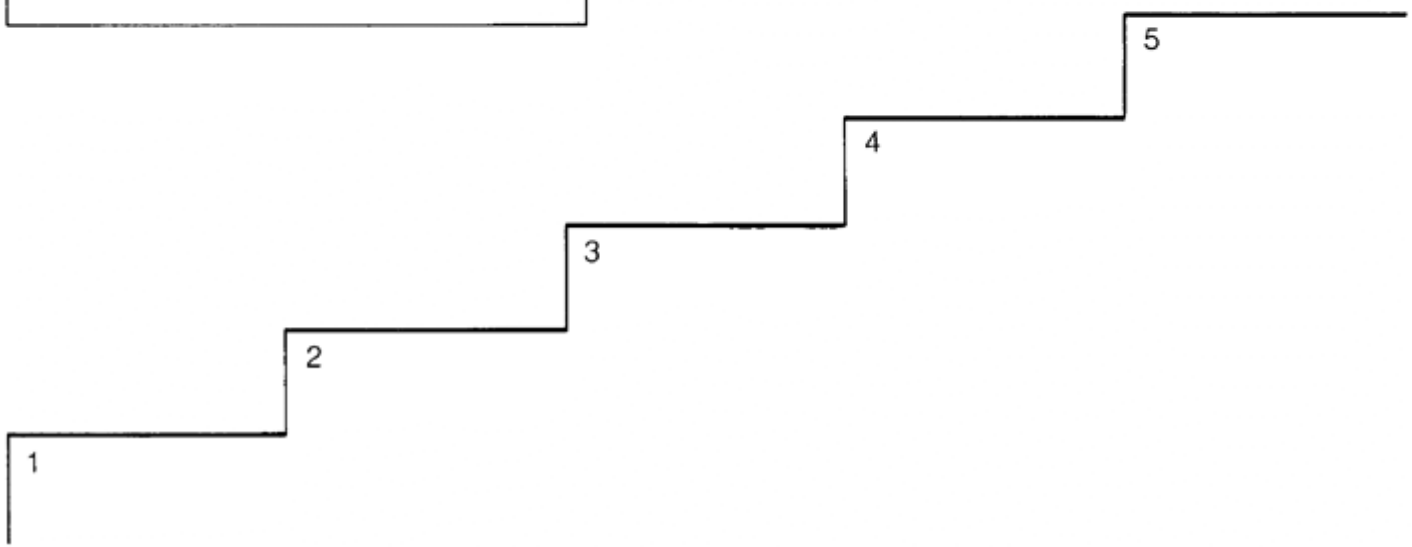
Select one thing that you can do personally to improve your own self-concept. Develop an action plan to achieve your goal

MY GOAL

WHY I CHOSE THIS GOAL

STEPS TO REACH MY GOAL

(What I have to do to reach my goal)



SUPPORT I NEED TO REACH MY GOAL

_____

_____

_____

_____

_____

PROGRESS:

(Chart your daily progress)

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
WEEK 1							
WEEK 2							
WEEK 3							
WEEK 4							

HOW DID I DO?

(Summarize your progress and assess how well you did)

MENTAL AND EMOTIONAL WELL BEING

GRADE: 7 LESSON: 3 THEME: RELATIONSHIPS

CONCEPT: EFFECTIVE COMMUNICATION IS IMPORTANT IN A RELATIONSHIP

PREPARATION: 1 Have four students prepare for role play in Student Activity 3

VOCABULARY: goal, achieve, progress, evaluation

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
Students will be able to: i) identify skills involved in initiating, maintaining and concluding a conversation	Students: 1. Review reasons why people communicate 2. Identify the three stages of a conversation	Background Information Page - People communicate in order to - exchange information (e g: How do I get to the Bay?) - exchange ideas (eg: The Meech Lake Accord is harmful to the north) - exchange feelings (eg: I'm lonely without you) - entertain (eg: music, art) - pass on culture (eg: stories, education) Communication is a learned skill which enhances relationships with family, friends, colleagues, etc.. The three stages are: - Initiating - maintaining - concluding

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
	3. Identify some ways to initiate, maintain and conclude a conversation	Have 4 students prepare skits to present to the class Two of the students converse in a manner which facilitates and enhances their conversation The other two do the opposite Select a topic such as discussing a recent sports event or planning a class party Help students write and practise their scripts When the skits are presented to the class, students should identify things which facilitated the conversation of the 2 students who were communicating effectively Categorize and record student responses using a chart as illustrated.

Conversation		
Initiating	**Maintaining**	**Concluding**
- proper introduction of oneself - choosing a topic of common interest - using positive body language (smiling, nodding, posture, eye contact) - speaking clearly - listening actively	- listening actively - clearly expressing ideas - choosing correct words - not interrupting the speaker - repeating the message accurately - asking questions - respecting other people's opinions - showing interest	- knowing when to end the conversation - making positive concluding remarks (It was nice talking to you)

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
ii) practise initiating, maintaining and concluding a conversation	4. Role play how to initiate, maintain and conclude a conversation	In groups of 3 have students select a topic of conversation and practise initiating, maintaining and concluding a conversation. Two students converse while the third coaches them to use the techniques listed on the chart above . Students switch roles so that everyone has a turn coaching Possible topics of conversation include: - introducing a new friend to your group and making him/her feel welcome - discussing a recent sports event - asking friends over for a party - inviting a special friend to dance - asking a parent for new clothes - asking a teacher for help with homework - asking a friend to help you complete a chore Discuss.

MENTAL AND EMOTIONAL WELL BEING

GRADE: 7 LESSON: 4 THEME: RELATIONSHIPS

CONCEPT: EFFECTIVE COMMUNICATION IS IMPORTANT IN A RELATIONSHIP

PREPARATION:

VOCABULARY: criticism, constructive, destructive, judgement, evaluation

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
Students will be able to:	Students:	Background Information Page --
i) identify what criticism is	1. Brainstorm what is meant by criticism	
	2. Define the term 'criticism'	Use a dictionary and general discussion to define the term. Criticism is making judgements or evaluations about someone or something.

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
ii) identify constructive and destructive criticism	3. Distinguish between constructive and destructive criticism. 4. Give examples of constructive and destructive criticism.	Constructive criticism tries to help improve someone or something Destructive criticism is fault finding. Using scenarios such as those listed below ask students to provide both constructive and destructive criticism. - Someone cannot catch a baseball very well - Your sister borrows your Walkman without asking - A student fails a test - Someone is late for work/school - The radio is so loud you cannot talk on the telephone - You and a friend are supposed to be putting the volleyball equipment away but your friend is goofing off and you're doing all the work Teachers must be sensitive to student comments.
iii) identify the results of criticism	5. Describe some possible results of constructive and destructive criticism.	Using the scenarios from Student Activity 4 ask students to brainstorm the possible results of their suggested criticisms. Record student responses on a chart as illustrated. **Constructive Criticism** - provides more knowledge about self - demonstrates sense of caring - shows acceptance by other person - enhances self-concept - enhances relationships - shows respect for other person **Destructive Criticism** - person receiving criticism feels incapable, disliked, worthless - demonstrates non-acceptance by other person - lowers self-concept - leads to communication break-down Discuss.

MENTAL AND EMOTIONAL WELL BEING

GRADE: 7 LESSON: 5 THEME: RELATIONSHIPS

CONCEPT: EFFECTIVE COMMUNICATION IS IMPORTANT IN A RELATIONSHIP

PREPARATION: 1 Prepare enough Critical Case Studies for several groups (Activity Sheet ME63)

VOCABULARY:

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
Students will be able to:	Students:	Background Information Page -
i) identify ways of giving and receiving criticism	1. Identify ways to give constructive criticism.	Using one of the scenarios from Lesson 4, Student Activity 4, ask students to give constructive criticism for the chosen situation. For example: Situation: Failing a test Constructive Criticism: "You're doing well on multiplication but your division needs a lot of improvement. I want you to come in after school for some extra help."
	2. Identify ways to receive constructive criticism.	Ask students to identify ways constructive criticism is given and received. Record their responses on an experience chart as illustrated.

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES

Giving Criticism

1. If you are bringing up an issue that has taken place some time ago, ask to bring it up now.
2. Be specific.
3. Use personal pronouns.
4. Avoid name-calling and put downs.
5. Assume a positive body image.
6. Give the person some suggestions as to what they could do to alleviate your discomfort.
7. Don't let negative feelings pile up until you explode.
8. Give positive feedback as well as negative.
9. Avoid sidetracking.
10. Be honest with your struggle to be direct.

Handling Criticism

1. Relax and listen.
2. Paraphrase the criticism.
3. Decide whether criticism is fair or unfair.
4. Ask for clarification.
5. Ask for specific suggestions or alternatives.
6. Don't go into long excuses.
7. If you disagree respond with opinion statements.
8. Keep your voice at a normal pitch.
9. Share your feelings.
10. Avoid taking criticism personally.

Discuss.

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
	3. Discuss positive ways to cope with destructive criticism	Brainstorm tips for handling destructive criticism. Refer students to the chart "Handling Criticism" from Student Activity 2. Additional ways to handle destructive criticism include: - not over-reacting - closing the subject and leaving the situation
ii) practise giving and receiving constructive criticism	4. Role play giving and receiving constructive criticism	Refer to Activity Sheet ME63. In small groups, have students change destructive criticism to constructive criticism, using the case studies. Have each group role play one case study for the class. Discuss as a class.
	5. Develop their own case studies	Have students develop their own case studies in which they give and receive constructive criticism.

CRITICAL CASE STUDIES

1 Carla, a grade 7 student, brings home her fall report card. Her parents read it and her father says "This report card is terrible. Why don't you smarten up?"

a) How does Carla feel?
b) What can Carla say and do?
c) What constructive criticism can her parents give to Carla?

Complete a script Role play.

2 The hockey coach tells Chris in front of some team members "You are not concentrating on your game. If you spent more time looking for the puck and less time looking at your friends on the side you might do better."

a) How does Chris feel?
b) What can Chris say and do?
c) What constructive criticism might the coach have given to Chris?

Complete a script Role play.

3 Robert asks his mother for a new pair of runners because his friends tease him about his old ones. Mother responds angrily, "You're always worried about what your friends say and never about where the money is going to come fr[illegible]"

a) How does Robert feel?
b) What can Robert say and do?
c) Rewrite mother's comments into constructive comments.

Complete a script Role play.

4 Stella cannot find the calculator she borrowed from her friend.
Her friend says, "You're stupid and irresponsible. I'll get you for this "

a) How does Stella feel?
b) What can Stella say and do?
c) Rewrite some constructive criticism Stella's friend might have given.

Complete a script Role play.

GRADE 7

TEACHER BACKGROUND INFORMATION

MENTAL AND EMOTIONAL WELL-BEING

MENTAL AND EMOTIONAL WELL-BEING

The Mental and Emotional Well-Being Unit of the Health program aims to enable students to function effectively in a social context. An increase in self-understanding will lead to an enhancement of their self-concept. Together with the acquisition of decision-making, communication and coping skills, this will lead to an improvement in students' mental and emotional well-being, and in their ability to function effectively socially.

The school can contribute greatly in the development of a healthy mental and emotional well-being, through the attitudes of staff, and the atmosphere in both the classroom and the school. Positive attitudes and a positive atmosphere will enhance students' self-concept.

For that reason, the creation of a positive classroom atmosphere is essential for teaching this unit (Refer to "Introduction Building A Positive Classroom Atmosphere"). Since the unit deals with very personal topics (students are, after all, learning about themselves, and nothing can be more personal than that), teachers should be aware of the need for sensitivity and respect. Students should be given the opportunity to participate in discussions, but should also be given the opportunity to pass, if they feel uncomfortable in sharing information with others. Students, and teachers, will gradually become more accustomed to the teaching methods used m this unit, and will soon begin to feel quite comfortable with the unit. Pilot testing of this unit indicated that students were hesitant for the first two or three lessons, but then really enjoyed learning about themselves.

Because of the personal nature of the unit, teachers must become familiar with its cultural appropriateness. Different cultural groups have different values regarding the self, as opposed to the group. They have different ways of appropriately expressing (or not expressing) feelings. Teachers should adapt the materials as necessary to fit the local situation. Wherever possible, members of the local culture should teach culturally sensitive topics to enhance and reinforce students' understanding of these topics within the appropriate cultural context.

Mental and emotional well-being refers to how a person feels, thinks and acts. If she/he feels "good", this translates into positive feelings, positive relationships with other people, decisiveness and an ability to cope with the stresses of every day life. A person who does not feel "good" has difficulty forming worthwhile relationships and has difficulty functioning in every day life.

SELF-CONCEPT

Self-concept is the sum of ideas (or perception) including beliefs and attitudes, that a person has about him/herself It includes self-worth, self-image and self-esteem.

Self-concept is derived from three elements:

- the real person, i.e.., what the individual is really like
- others' perceptions of the individual Self-concept is developed through interaction If the interaction is positive (i.e., loving, supportive, etc), self-concept will be positive Self-concept is defined by key people in a person's environment (e.g., family members, friends, peers, elders, etc.), and
- the individual's perceptions of him/herself. An individual lives up to his/her own expectations and depends on him/herself rather than on others

When young people move toward a more individual and independent sense of identity during adolescence, developing moral values, physical changes, sexual impulses, changing relationships etc., all impact on a person's self-concept.

Students can take responsibility for the enhancement of their own positive self-concept (throughout life) by developing skills which include:

- occasional self-praise, the student must admit to him/herself that it is his/her ability and effort that has given each success, not luck and an easy task.
- acknowledgement of personal successes and the contributing strengths, success in itself is not adequate.
- recognition and identification of personal strengths, they can start to do this by identifying strengths required to perform specific tasks.
- self-examination skills which identify things that can be changed, the individual must be willing to work on those while accepting things that cannot be changed. This can be achieved through:
    - setting realistic goals
    - setting goals one at a time
    - identifying small steps to achieve the goal
    - rewarding oneself
- developing the ability to accept praise rather than denying the strength being praised, this helps establish self-worth. People can learn specific skills, such as how to accept a compliment.
- learning how to benefit by mistakes and accepting them, rather than being defeated or deflated by them, games of trial and error and a discussion of the process can develop this skill.

A positive self-concept results in high self-esteem, a negative self-concept in lack of self-esteem. Individuals exhibit attributes that correspond with their level of self-esteem.

Characteristics of high self-esteem	**Characteristics of low self-esteem**
- positive evaluation of self - feeling of self-worth - self-confident	- unhappy with themselves - anxious - a need to compare and evaluate themselves in relation to others
- moderate risk takers	- unwilling to risk failure and resulting disapproval
- clear about strengths and weaknesses - able to accept constructive criticism	- avoidance in facing personal short-comings - sensitive to criticism
- good interpersonal skills	- unable to form good relationships, unpopular
- able to avoid destructive behaviour	- submissive, nonassertive, dependent - a high need for approval
- an ability to self-actualize (become all they can in life) - ability to acknowledge their success	- an overriding desire to live up to the expectations of others - never sees their own success as such

Anxiety can hinder people with low self-esteem from entering social situations. Taking this risk is necessary to make new friends, develop new skills and provide opportunities for positive acknowledgement of the individual. However, risk taking may result in failure, which the low-esteem individual has difficulty accepting.

Everyone can contribute to an environment that helps the development of a positive self-concept through:

- having a positive attitude
- using encouragement rather than praise
- expressing their feelings, encouraging and teaching others to do so - practising good listening skills (non-judgemental)
- encouraging differences and creativity
- allowing responsibility
- being a good role model
- making the individual feel special
- not ridiculing or embarrasing others
- giving individuals a chance to do the things they do well (and helping them), this allows them to experience success
- examining the consequences of behaviour
- clearly defining performance standards

GRADE 7

GROWTH AND DEVELOPMENT

GROWTH AND DEVELOPMENT

GRADE: 7 LESSON: 1 THEME: BODY SYSTEMS

CONCEPT: THE SKIN SUPPORTS AND PROTECTS THE BODY

PREPARATION:
1. Prepare an overhead transparency of Activity Sheet GD59
2. Prepare a class set of Structure and Functions of the Skin worksheet (Activity Sheet GD60A)
3. Prepare enough copies of the Sweat Glands worksheet for several groups (Activity Sheet GD61)
4. Writing paper, scissors, corn starch, measuring cups/spoons, containers for mixing (for Activity Sheet GD61)

VOCABULARY: epidermis, dermas, sweat, pigment, regulates

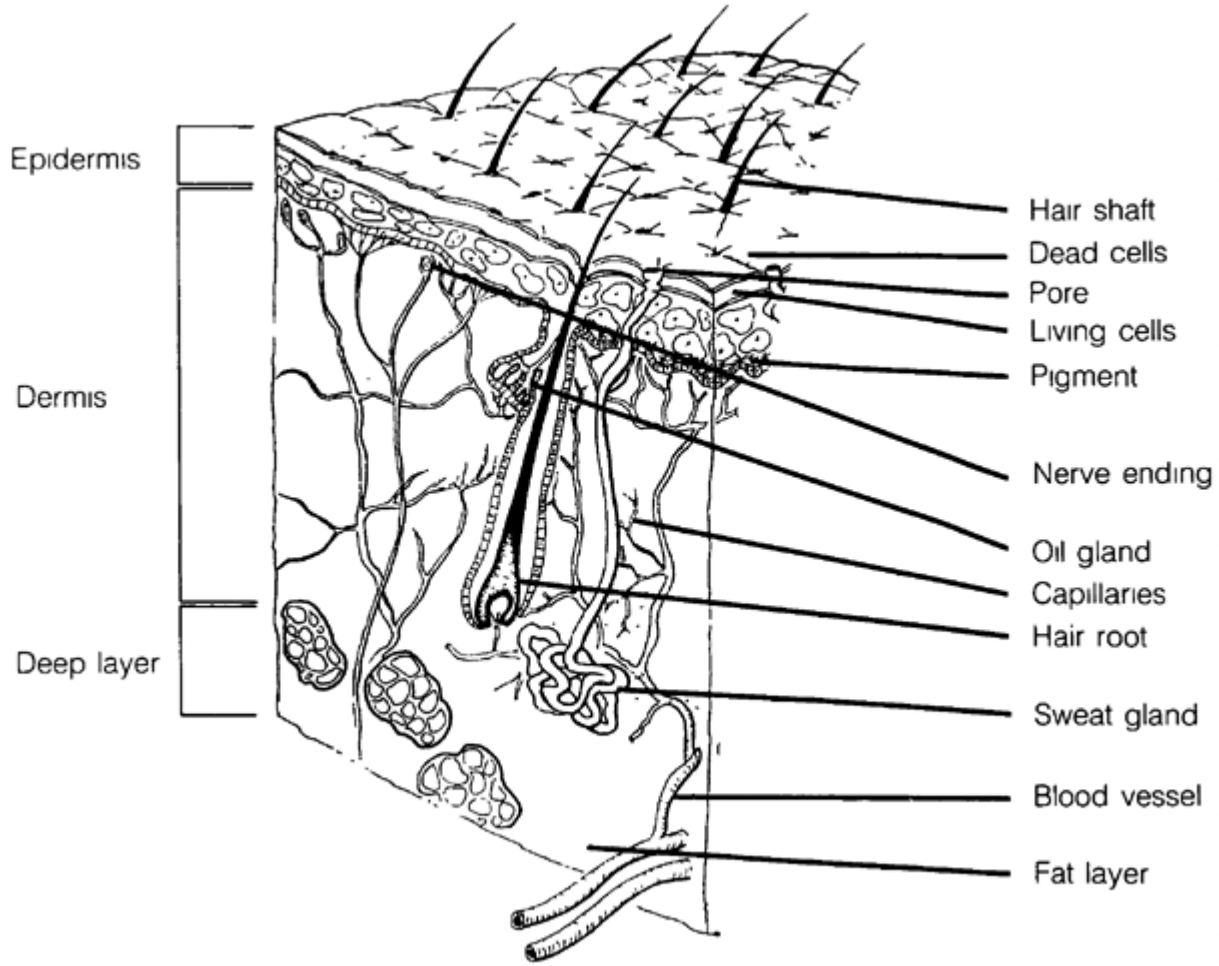
OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
Students will be able to:	Students:	Background Information Page GD57 to GD62.
i) describe the general characteristics of the skin	1. Describe the general character istics of the skin.	Have students look at their skin and describe some general characteristics of the skin General characteristics of the skin include: - colour and freckles - lines and wrinkles - hair growth - fingerprints - no rashes or blemishes - soft, supple texture - weighs about 3 kilograms in adults - covers about 2 3 square metres - thickness varies (eyelids thinnest, soles of feet thickest) The skin is the largest organ of the body.

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
ii) describe the structure of the skin iii) describe the functions of the skin	2. List the three skin layers, their related parts and the general functions of each layer.	Refer to Activity Sheet GD59. Use the overhead transparency. Refer to the chart below Write each General Function on a separate strip of paper. (You will have nine strips.) Construct with students a large version of the chart below: - Write the three categories along the top. - Write the three skin layers in the left hand column. - Students refer to the overhead to identify the structures for each layer. - Students match each function strip with the appropriate layer.

Layer	Structure	General Function
Top Layer (Epidermis)	- dead cells - living cells - hair shaft (tips) - pores - pigment	- protects the body from germ entry - regulates body temperature - removes wastes
Middle Layer (Dermis)	- sweat glands - oil glands - hair roots - nerve endings	- receives sensations (i e , pressure, pain, heat, cold) - regulates body temperature - secretes oil to make skin water-proof and soft
Deep Layer	- blood vessels - fat layer	- binds the skin to the body - stores fat and water for use as needed - regulates temperature

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
	3. Complete Structure and Functions of the Skin worksheet.	Refer to Activity Sheet GD60A. Refer to Activity Sheet GD60B for answers.
	4. Investigate how sweat cools the body.	Have students wet one hand and then go outside with no mitts on. Ask students to think about the following: - which hand got cold faster? (the wet one) - why? (moisture drying off the skin) - how sweat helps the skin? (cools it down) (regulates temperature)
	5. Investigate the location of sweat glands on the palm of the hand.	Refer to Activity Sheet GD61. Have the students perform the experiment to determine where the sweat glands are located.
iv) state the importance of the skin	6. Describe the importance of the skin.	The skin is important because of the many functions it performs. Have students review these functions using the sentence pattern. Skin is important because it _____ - regulates temperature - receives sensations - helps prevent disease - tells us what colour we are! - etc (Refer to Student Activities 2 and 3)

A CROSS SECTION OF THE SKIN



STRUCTURE AND FUNCTIONS OF THE SKIN

Read each sentence, then choose a word from the box to complete the sentence.

sweat glands	pores	epidermis
oil glands	dermis	hair shaft
deep layer	sweat	

1 The top layer of the skin is called the _____.

2 The layer of the skin that receives pain, pressure, hot and cold is called the _____.

3 _____ is the secretion that cools the skin.

4 On the surface of the skin are tiny openings called _____.

5 The _____ help to keep the skin from cracking and flaking.

6 The _____ attaches the outer skin to the body.

7 Each hair grows out of a tiny pit called a _____.

8 _____from the dermas secrete perspiration.

Write three functions for each layer of the skin.

Top layer (epidermis):

1 _____

2 _____

3 _____

Middle layer (dermas):

1. _____

2 _____

3 _____

Deep layer:

1 _____

2 _____

3 _____

STRUCTURE AND FUNCTIONS OF THE SKIN

(Teacher Answer Guide)

Read each sentence, then choose a word from the box to complete the sentence.

sweat glands	pores	epidermis
oil glands	dermis	hair shaft
deep layer	sweat	

1. The top layer of the skin is called the (epidermis).
2. The layer of the skin that receives pain, pressure, hot and cold is called the (dermas).
3. (Sweat) is the secretion that cools the skin.
4. On the surface of the skin are tiny openings called (pores).
5. The (oil glands) help to keep the skin from cracking and flaking.
6. The (deep layer) attaches the outer skin to the body.
7. Each hair grows out of a tiny pit called a (hair shaft).
8. (Sweat glands)from the dermas secrete perspiration

Write three functions for each layer of the skin

Top layer (epidermis):

1. protects against germ entry
2. regulates body temperature
3. removes wastes

Middle layer (dermas):

1. receives sensations i.e., pain, pressure, temperature
2. regulates body temperature
3. secretes oil

Deep layer:

1. binds the skin to the body
2. stores fat and water for use as needed
3. regulates temperature

SEARCHING FOR SWEAT GLANDS

There are more sweat glands in some areas of the skin than in others - the palm of the hand and the sole of the foot, for example Try this simple test to help locate the sweat glands on the palm of the hand

Steps:

1. Cut some writing paper into 6 cm x 6 cm squares Make one square for each person in your group.

2. Combine 100 ml water with 10-15 ml cornstarch and stir well.

3. Dip writing papers into the cornstarch solution Let them dry.

4. Paint the palm with iodine.

5. Exercise to work up a sweat.

6. Press test paper on painted palm Sweat glands will show up as dark spots.

GROWTH AND DEVELOPMENT

GRADE: 7 LESSON: 2 THEME: BODY SYSTEMS

CONCEPT: THE SKIN SUPPORTS AND PROTECTS THE BODY

PREPARATION:
1. Prepare two class sets of My Skin Care Routine (Activity Sheet GD62).
2. Prior to the class, invite a community health nurse to visit the class (for Student Activity 3).
3. Prepare several copies of Common Skin Problems worksheet (Activity Sheet GD63).
4. Pamphlets, books other health information for Student Activity 4.

VOCABULARY: acne, lice, scabies, impetigo, ringworm, warts, athlete's toot, symptoms, cure, prevention

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
Students will be able to:	Students:	Background Information Page GD57 to GD62.
i) describe common problem conditions and their causes related to the skin	1. Complete My Skin Care Routine worksheet.	Refer to Activity Sheet GD62. Have students complete the worksheet as a pre-test. Collect and keep the completed tests for use later in the lesson.
	2. Name common problem condi tions related to the skin.	Ask students to name as many skin problems as they can think of. List their responses on the board or on chart paper. Common skin problem conditions include: - acne - lice - scabies - impetigo - ringworm - sunburn - frostbite - cold sores - athlete's toot - warts - burns - skin cancer

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
	3. Discuss common skin problem conditions.	Invite a community health nurse into the classroom to discuss skin problem conditions with the students. Prior to the class, have students write down any questions they would like answered.
	4. Prepare a brief report on two common skin problems and what causes each of them.	Refer to Activity Sheet GD63, health pamphlets, books, etc.. In small groups, have students research two common skin problems. Have them write reports using the format on Activity Sheet GD63. (Ensure that all common skin problems are reported on) Share the reports with the rest of the class.
ii) describe ways to care for the skin	5. List ways to care for the skin.	Brainstorm with students different ways of caring for the skin. List their responses on the board. Ways to care for the skin include: - cleaning the skin, washing it at least once a day with soap and water - drying skin thoroughly with a soft towel - not pinching or picking blemishes - using warm compresses for pimple care - using little or no make-up - not sharing cosmetics, especially eye make-up - using sunscreen to prevent sunburn - covering skin to protect it from frostbite - eating balanced meals - drinking plenty of fluids - washing to avoid unpleasant skin odours - avoiding smoking (causes premature wrinkles)

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
iii) demonstrate proper skin care	6. Follow a proper skin care routine.	Refer to Activity Sheet GD62. Distribute My Skin Care Routine worksheets completed by students at the beginning of the lesson. Ask each student to identify: - those areas where skin care is adequate - 2 to 4 areas which need improvement (e g , picking at blemishes) After two weeks ask students to complete the worksheet again, to note improvements and to discuss reasons why they may not have improved.

MY SKIN CARE ROUTINE

Check the appropriate box..

I	never	sometimes/ a bit	once a week	two or three times a week	once a day	two or more times a day
wash my face with soap and water						
wash hands with soap and water						
shower/bath						
pick/pinch blemishes/pimples						
use deodorant						
wear make-up						
share make-up with friends						
wear sunscreen						
cover my skin to prevent frostbite						
eat balanced meals						
drink plenty of fluids						
smoke						

COMMON SKIN PROBLEMS

Skin Problem: _____

Symptoms: _____

_____

_____

Cause: _____

Treatment: _____

_____

_____

Prevention: _____

_____

GROWTH AND DEVELOPMENT

GRADE: 7 **LESSON: 3** **THEME: DISEASE PREVENTION**

CONCEPT: MANY HEALTH PROBLEMS IN ADOLESCENTS CAN BE PREVENTED

PREPARATION: 1 Prior to the class, invite the doctor or community health nurse to the class to discuss adolescent health problems
2 Pamphlets and other information on common adolescent health problems

VOCABULARY: adolescent, mental health

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
Students will be able to: i) identify common health problems of adolescents	Students: 1. Brainstorm common health problems of adolescents in the N. W. T. and Canada.	Background Information Page - Common health problems of adolescents in the N .W .T. and Canada include: - mental health problems (i e , psychosocial problems related to school, family and peers) - suicide - teenage pregnancy - sexually transmitted diseases (S T D s) - drug misuse and abuse (i e , tobacco, marijuana, alcohol) - accidents - nutrition problems (i e , obesity, malnutrition) - environmental problems (i e , pollutants, noise, stress, radiation) - dental problems (tooth decay) Discuss.

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
	2. Discuss the most common types of adolescent health problems treated in the community.	Prior to the class, invite a nurse or doctor to the class to identify common adolescent health problems and their causes. Have students write down questions which they would like answered.
ii) describe ways to prevent common adolescent health problems	3. List ways to prevent common adolescent health prob	Obtain pamphlets and other health information from the nursing station or library. Divide class into small groups. Have each group take one common adolescent health problem and discuss ways to prevent it. Prevention methods should include:

Problem	**Prevention**
mental health problems/ suicide	- talk to a friend/family member - participate in relaxation/leisure time activities - identify personal/community support people
teenage pregnancy	- learn decision-making skills - abstain from sexual activity - learn about birth control
sexually transmitted diseases	- abstain from sexual activity - avoid casual sex - discuss sexual activity with partner - become educated about protection
drug misuse and abuse	- avoid use of alcohol and other drugs - explore alternate activities which prevent boredom - know one's limits
accidents	- learn about safety - practise safe behaviours - avoid potentially dangerous situations

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES

		nutrition problems (obesity malnutrition)	- learn about nutrition - avoid funk food - practise nutritious eating habits
		environmental problems	- learn about pollution - avoid polluting water, soil and air - encourage others not to pollute
		dental problems	- learn about dental care - avoid food, drinks which cause tooth decay

Have each group share with the rest of the class.

4. Make a book of Adolescent Health Problems.

Have each group prepare a chapter for the book on the problem they discussed. The chapter should include the problem, ways to prevent it, community support people, drawings, interviews with support people, photographs etc..

Make the chapters into a class reference book.

GROWTH AND DEVELOPMENT

GRADE: 7 **LESSON: 4** **THEME: PHYSICAL FITNESS**

CONCEPT: PHYSICAL FITNESS IS ESSENTIAL FOR OPTIMAL HEALTH

PREPARATION:
1 Prepare for a short physical fitness activity (for Student Activity 1)
2 Overhead transparencies of Activity Sheets GD64A, 64B
3 Lightweight dumb-bells, heavy barbell or suitable replacements (for Student Activity 4)
4 Prepare a class set of Physical Fitness worksheet (Activity Sheet GD65)

VOCABULARY: physical fitness, components, cardiovascular, endurance

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
Students will be able to:	Students:	Background Information Page GD62 to GD74. The exercises suggested here may be adapted for students with physical disabilities. Since physical fitness is important for the optimal health of all students, this section of the program must meet individual needs.
i) define physical fitness	1. Participate in a short physical fitness activity.	Have students participate in one of the following short physical fitness activities, e.g., - skipping for 5 minutes - stepping up and down on a bench for 5 minutes (straighten legs fully on step up and step down) - jogging around gym, or on the spot for 5 minutes After the activity ask such questions as: Did everyone keep going for 5 minutes? Why not? Did you slow down after a few minutes? Why? Were all students in the class going at the same speed? Why not?

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
	2. Define the term 'physical fitness.'	These questions should lead students to say that some students are in better shape than others or that not everyone has the same fitness level. Brainstorm with students what they think physical fitness means by having them complete two sentences. A person who is fit _____. A person who is not fit _____. Encourage them to think of characteristics of well-known athletes and not-so-well-known 'couch potatoes'. Record responses on an experience chart as illustrated. Retain the chart for use with Student Activity 3.

A person who is fit:	**A person who is not fit:**
- is healthy - looks good - feels good - has lots of energy - can cope with daily tasks/ pressures - is not fat - is strong - does not tire easily	- feels tired - lacks enthusiasm - is flabby - is not strong

Summarize with this definition:

Physical fitness is the ability of the body to meet the demands of daily living or
If a person is physically fit his/her body can perform necessary, daily tasks without excessive tiredness.

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
ii) identify the components of physical fitness	3. Name the components of physical fitness.	Refer to the experience chart developed in Student Activity 2. Select responses from the chart and attach appropriate labels to name the five components of fitness. For example: A person who is fit: - does not get short of breath (cardiovascular fitness) - is strong (muscular strength) - has lots of energy (muscular endurance) - is not fat (body fat percentage) - can touch his/her toes (flexibility) (Only the Health components of physical fitness are addressed).
	4. Define the components of fitness and give examples of exercises which develop each component.	Refer to Activity Sheets GD64A and 64B (Teacher Answer Guide GD64B). Using an overhead transparency of Activity Sheet GD64A, define each fitness component and ask students to give examples of exercises which develop each component. Try the following concrete activities with students to help them understand each component of fitness. Some of these activities could be set up in work stations, and students could complete them in small groups. Without being competitive, students should note differences between individuals for each component. a) Cardiovascular Fitness: Have students recall differences in performance in Student Activity 1, or show a film about distance running or skiing. b) Muscular Endurance: Obtain some light dumb-bells (6 kg maximum). Ask (a) student(s) to perform as many arm curls as possible. How many were done? (It should be a high number, perhaps 5.0).

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
		c) Muscular Strength: Obtain a heavy bar-bell (20 kg) Ask (a) student(s) to perform as many arm curls as possible. How many were done? (It should be a low number, not more than 10 Use a heavier bar-bell if necessary) (To prevent back strain students should stand with their backs against a wall). d) Flexibility: Bend knees and touch finger tips to floor. **Slowly, without bouncing**, straighten knees as much as possible, keeping fingers on floor. Or, sit cross-legged and **slowly, without bouncing**, bend forward trying to touch forehead to floor. e) Body Fat Percentage: Pinch fat (loose flesh) on back of upper arm, using thumb and index finger. Compare the thickness of fat on students who **look** about the same weight.
	5. Complete the Physical Fitness Worksheet.	Refer to Activity Sheet GD65. Have students complete the worksheet by identifying which components of physical fitness are developed in the different activities.

THE COMPONENTS OF PHYSICAL FITNESS

COMPONENTS	DEFINITIONS	SPORTS OR ACTIVITIES
a) cardiovascular fitness		
b) muscular endurance		
c) muscular strength		
d) flexibility		
e) body fat percentage		

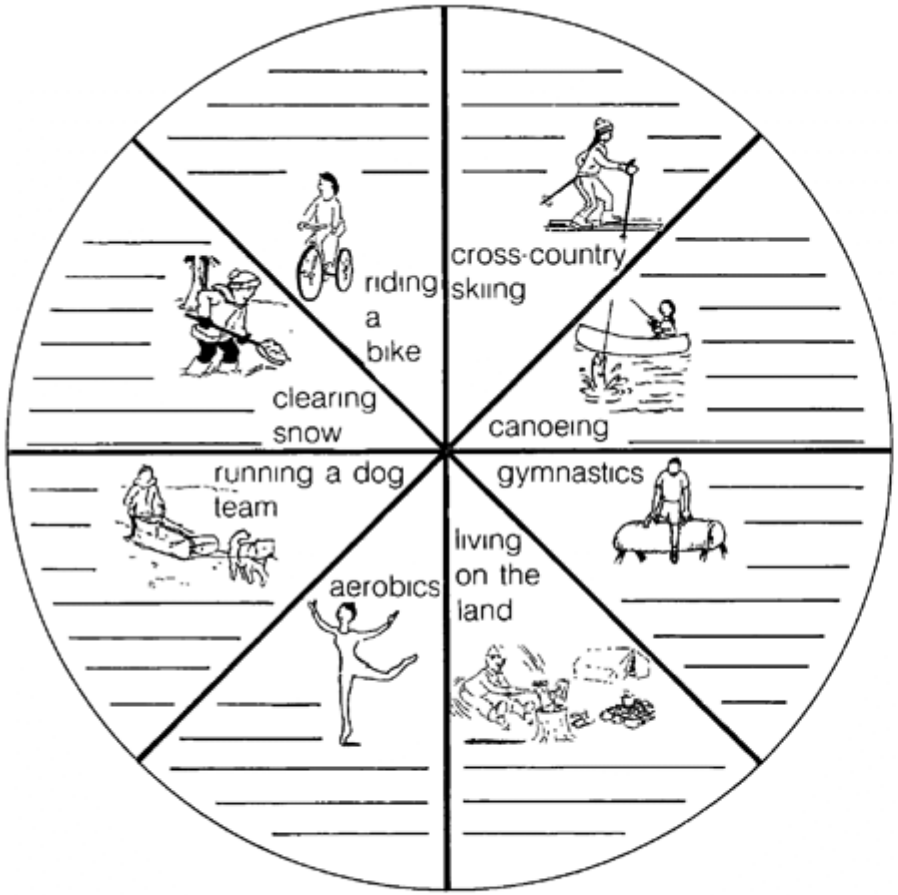
THE COMPONENTS OF PHYSICAL FITNESS

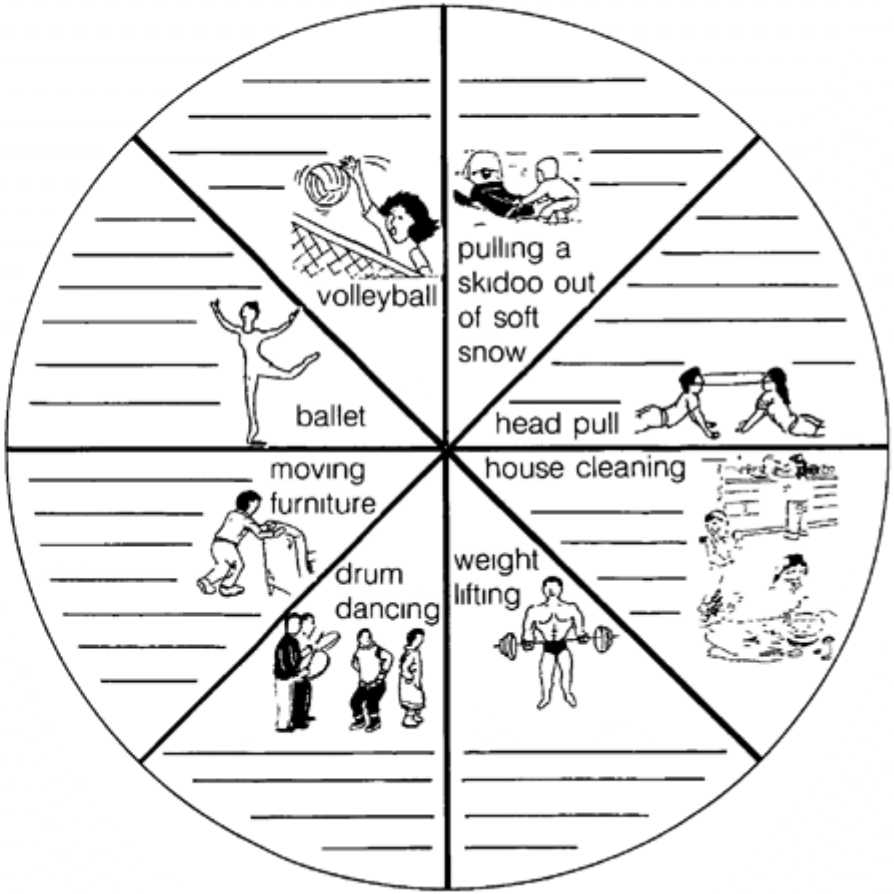
(Teacher Answer Guide)

COMPONENTS	DEFINITIONS	SPORTS OR ACTIVITIES
a) cardiovascular fitness	- ability of heart, lungs and blood vessels to supply oxygen to body cells	- bicycling - cross-country skiing - climbing stairs 
b) muscular endurance	- ability to perform activity over a long time period without becoming tired	- backpackinglhiking - paddling a canoe - shovelling snow 
c) muscular strength	- ability of muscles to put out a great deal of force over a short period of time	- heavy weight training - portaging a canoe - sit-ups 
d) flexibility	- ability to move body joints through a wide range of motion	- dancing - gymnastics - putting on boots 
e) body fat percentage	- percent of body weight that is fat	- cross-country skiing - swimming - jogging 

PHYSICAL FITNESS WORKSHEET

Identify which components of physical fitness are developed by each activity





GROWTH AND DEVELOPMENT

GRADE: 7 **LESSON: 5** **THEME: PHYSICAL FITNESS**

CONCEPT: PHYSICAL FITNESS IS ESSENTIAL FOR OPTIMAL HEALTH

PREPARATION: 1 Prepare a class set of Community Fitness Surveys (Activity Sheet GD67)

VOCABULARY: benefits

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
Students will be able to:	Students:	Background Information Page GD62 to GD74.
i) describe the benefits of being physically fit	1. Identify the benefits of being physically fit.	This is a review of the chart developed in Lesson 3, Student Activity 2, "A person who is fit _____ ."
ii) describe ways in which each fitness component can be developed	2. For each fitness component, name games, activities and exercises which can develop the component.	Divide students into small groups. Organize a contest to name as many games, activities, sports and exercises as possible that develop each of the five fitness components. Encourage students to include day-to-day activities in their lists (for example housework, carrying a baby in an amouti, snugli or baby belt, climbing stars, walking to school). Refer to Activity Sheet GD66 as a possible answer guide.
	3. Survey community members to determine commonly practised ways to improve fitness components.	Refer to Activity Sheet GD67.

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
		Group students in pairs. Have each pair interview at least 10 people in their community and complete a survey sheet for each person interviewed (Names should be confidential). (Before sending students into the community ensure that they know how to introduce the survey by explaining its purpose to those being interviewed). Compile survey results to determine: - average number of minutes of exercise - most common (popular) activities - least common activities - whether all components of fitness are addressed equally (Usually flexibility and strength are the least developed areas) Display the results in public areas in the community.

FITNESS RATING OF COMMON ACTIVITIES

	Builds cardiovascular fitness	Builds muscle strength	Builds muscle endurance	Builds flexibility
Backpacking	Good	Good	Excellent	Fair
Badminton	Good	Poor	Fair	Fair
Basketball	Excellent	Poor	Good	Poor
Bicycling	Excellent	Fair	Good	Poor
Bowling	Poor	Poor	Poor	Poor
Ballet Dancing	Good	Good	Good	Excellent
Disco Dancing	Good	Poor	Fair	Fair
Social Dancing	Fair	Poor	Poor	Poor
Gymnastics	Fair	Excellent	Excellent	Excellent
Hiking	Good	Fair	Excellent	Fair
Jogging	Excellent	Poor	Poor	Poor
Mountain Climbing	Good	Good	Good	Poor
Rope Jumping	Excellent	Poor	Poor	Poor

	Builds cardiovascular fitness	Builds muscle strength	Builds muscle endurance	Builds flexibility
Skating	Good	Poor	Good	Fair
Cross-Country Skiing	Excellent	Fair	Excellent	Fair
Softball	Poor	Poor	Poor	Poor
Swimming	Excellent	Fair	Excellent	Fair
Tennis/Racquetball	Good	Poor	Fair	Poor
Volleyball	Fair	Fair	Poor	Poor
Walking	Good	Poor	Fair	Poor
Carrying groceries	Fair	Good	Fair	Poor
Packing a baby	Fair	Good	Fair	Poor
Doing exercises	Fair	Good	Fair	Excellent
Climbing stairs	Excellent	Fair	Poor	Poor
Doing housework	Fair	Fair	Poor	Fair
Chopping firewood	Good	Fair	Fair	Poor
Shovelling snow	Good	Good	Good	Poor
Lifting weights	Poor	Excellent	Poor	Poor

Activities which are good for cardiovascular fitness and muscular endurance tend to reduce body fat on the muscles being worked.

COMMUNITY FITNESS SURVEY

Have you already been interviewed? Yes _____No _____

Do you …..?	No	Yes	How many Times/week?	How long Each time?	Total minutes For this activity
Carry groceries					
Pack a baby					
Play an endurance sport (e.g. hockey, volleyball)					
Do exercises					
Walk to school/work					
Climb stairs					
Do housework					
Chop wood					
Shovel snow					
Cross country ski					
Jog					
Bicycle					
Lift weights					
Dance (socially)					

Add your own activities	No	Yes	How many Times/week?	How long Each time?	Total minutes For this activity
Sports					
1) _____ _____					
2) _____ _____					
3) _____ _____					
Fitness/Dance Class					
1) _____ _____					
2) _____ _____					
3) _____ _____					

GROWTH AND DEVELOPMENT

GRADE: 7 **LESSON: 6** **THEME: PHYSICAL FITNESS**

CONCEPT: PHYSICAL FITNESS IS ESSENTIAL FOR OPTIMAL HEALTH

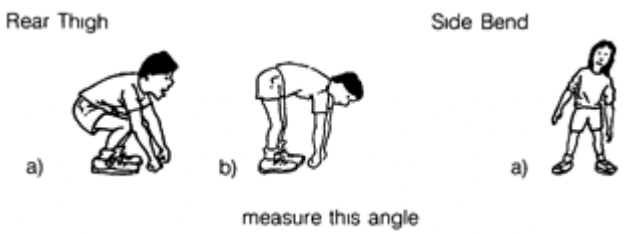
PREPARATION:
1. Prepare a class set of Personal Fitness Record (Activity Sheet GD68).
2. Materials for fitness tests (Student Activities 2 to 6) 30 cm high chairslbenches, metronome, protractors, rulers, clock with second hand, gym mats, gym benches (or 20 cm. high step).
3. Pretaped fitness program (Student Activity 10) – optional.

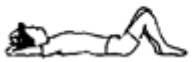
VOCABULARY:

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
Students will be able to: i) asses their personal physical fitness levels	Students: 1. Locate and measure the pulse accurately.	Background Information Page GD62 to GD74. To take the pulse in the neck: - raise chin slightly - press tips of two first fingers gently into soft flesh beside windpipe and just below chin - count for 15 seconds and multiply by 4 To take the pulse in the wrist: - press tips of first three fingers' into groove on wrist directly in line with the thumb and a few centimeters below the base of the thumb - count for 15 seconds and multiply by 4 * Do not use the thumb. It has its own pulse and could interfere with locating the pulse in the wrist.

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
	2. Measure the cardiovascular fitness component.	Refer to Activity Sheet GD68. A person with good cardiovascular fitness has a: - low resting heart rate - smaller increase in heart rate when exercising (than a person with poor cardiovascular fitness doing the same amount of exercise) - fast recovery (or return to resting heart rate after exercise) **The Test:** Students work with a partner and record results on Activity Sheet GD68 . a) Have your partner take your resting pulse and record it. b) Using a chair or bench about 30 cm high, step up with one foot, fully straightening the leg. Then step up with the other, fully straightening the leg. c) Step down with the first foot, fully straightening the leg, then down with the other foot, fully straightening the leg. d) Continue this stepping (up, up, down, down) for 3 minutes at the rate of 2 complete step ups and downs every 5 seconds (Use a metronome or hand clap to pace students). e) After 3 minutes of stepping have your partner take your pulse immediately and record it. f) Wait one minute and have your partner take your pulse again and record it.

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
	3. Measure the flexibility component.	Babies are very flexible (as evidenced by their ability to put their feet in their mouths) but as people grow older they tend to lose the flexibility through: - lack of practice. - development of muscles (i.e. , becoming literally muscle bound). Flexibility can be improved but it is the slowest, most difficult component of fitness to (re)develop. **The Test:** Students work with a partner and record results on Activity Sheet GD68 . 1. Rear Thigh: a) One student stands with feet together, bends knees and puts knuckles on floor directly in front of toes. b) The student slowly, without bouncing, straightens knees as much as possible. c) Using a protractor the partner measures the angle behind the knees, and records it . 2. Side Bend: a) In a standing position one student bends slowly sideways reaching finger tips of right hand as far down the right leg as possible. b) Using a ruler, the partner measures the number of centimetres from the knee to the finger tips, and records it . c) Repeat test using the left hand and record results.

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
	4. Measure the muscular endurance component.	 Muscular endurance is the ability of a muscle to repeat the same movement many, many times. Paddling a canoe for example, requires certain muscles to perform the same movement over and over. Activities which require muscle endurance do not require a great deal of strength. Muscular endurance activities firm and tone muscles. They do not develop bulk . **The Test:** Students work with a partner and record results on Activity Sheet GD68 . 1. Back of Arm (Dips): a) One student sits straight legged in front of a gym bench or step -between 20 and 30 cm high . b) The hands are placed on the bench (elbows bent) just wide of the hips. c) The arms are fully straightened, lifting buttocks off floor, and then bent, returning buttocks to floor - knees are straight throughout. d) Repeat for 30 seconds. The partner counts the number of dips completed and records. 

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
		2. Abdomen (Sit-ups): a) One student lies on his/her back on a gym mat, knees bent, hands under head. b) The student sits up by curling up, head first, then shoulders, then back, keeping knees bent throughout S/he lies down, reversing the procedure. c) Repeat for 30 seconds. The partner counts the number of sit-ups completed and records. a)  b)  3. Front Thigh (Knee bends): a) One student stands with feet shoulder width apart, and parallel to each other. b) The knees are bent until the upper thigh is parallel to the floor and then straightened (The arms can be swung forward on the knee bend to act as a counter-balance). c) Repeat for 30 seconds. The partner counts the number of knee bends completed and records. 

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
	5. Estimate body fat.	The percentage of body weight accounted for by fat should be about 13% for men and 18% for women. A person who gets very little exercise can be overfat without being overweight. A person with very low fat percentage will weigh more than someone who **looks** the same weight (but who has more fat) because muscle is denser than fat . **The Test:** Students work with a partner and record results on Activity Sheet GD68. a) Have your partner pinch a fold of flesh between the thumb and index finger in three locations. - back of upper arm - abdomen to one side of the navel - half way up the back of one thigh b) The partner measures the thickness of each fold with a ruler and records (Generally speaking a pinched fold of flesh should be less than 2 5 cm thick).
	6. Measure the muscular strength component.	Muscular strength is the ability of a muscle to exert its maximum force very few times. Someone training for muscle strength will lift the maximum weight only 2 or 3 times. Excessive weight training causes muscles to develop bulk. While the average person needs moderate muscular strength few people want or need to develop maximum strength . **The Test:** Students work with a partner and record results on Activity Sheet GD68 . 1. Front Thigh (Wall Sit): a) One student stands with back against a wall, and then slides down to a sitting position, i e , hips at 90 and knees at 90.

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
		b) The partner times the number of seconds the student can hold this position without slipping, and records. 
ii) describe the structure of a well-planned physical fitness program		Some of this material may be too in-depth for the students in your class. It is important for students to understand enough about a well-planned fitness program to know why they are doing certain things when they actually participate in a fitness program (objective iii).
	7. Explain how a well-planned fitness program should be structured.	A well-planned fitness program follows the F I T principle. F = Frequency Workout 3 times a week I = Intensity Get your heart rate into the target zone T = Time Keep it there for 15-20 minutes See Student Activity 8
	8. Calculate their target heart rate zone.	The upper limit of an individual's heart rate zone is: 200 minus the person's age The lower limit is 170 minus the person's age Therefore a 13 year old's target rate zone is between 157 and 187 beats per minute. According to the F I T principle a 13 year old needs to exercise vigorously enough to get his/her heart rate into the target zone and keep it there for 15-20 minutes, three times a week.

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
	9. Identify the components of a well planned workout.	A workout is one session and needs to be repeated three times a week in order to constitute a well-planned fitness program. A workout consists of: Warm up (10 min) - walking, stretching and other light exercise to prepare the body for more strenuous activities to follow. Aerobics (15-20 min) the - exercises such as skipping, fogging, or others which push the heart rate into the target zone, thus developing cardiovascular component of fitness. Calisthenics (10 min) - exercises to develop muscular endurance of specific muscle groups (e g , arms, abdomen). Cool down (5-10 min) - stretching and relaxation exercises to improve flexibility and prevent muscle stiffness.
iii) participate in a well planned fitness program	10. Participate in a well-planned fitness program for at least one month..	There are two practical ways for the classroom teacher who is not specially trained in physical fitness to help students meet this objective. a) Ask your local fitness leader to develop an exercise program for your class, or b) Use a pre-packaged program (e g , Jane Fonda) Whichever route is chosen the class should: - workout three times per week, - be able to identify the warm up, aerobic, calisthenic and cool down portions of the workout, - take their pulse after the aerobic portion of the workout (If pulse is above the target zone ease off, if below work harder)

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
		If your local fitness leader is developing a program specfically for your class, show him/her the results of the fitness tests recorded on Activity Sheet GD68. S/he can then develop a program based on group strengths and weaknesses. It is important that the teacher participate in the fitness program too!
	11. Measure personal fitness improvement.	After one month of working out three times per week repeat the tests outlined in Student Activities 2 to 6. Record the new results on Activity Sheet GD68 and note improvements.

PERSONAL FITNESS RECORD

GD68

Name _____ Date of Initial Test _____ Date of Retest _____

Cardiovascular Fitness

Heart Rate (per minute)	Initial Test	After 1 month of exercise
Resting		
After 3 minutes of step ups		
After 1 minute recovery		

Flexibility

	Initial Test	After 1 month of exercise
Rear Thigh angle behind knee		
Side cm below knee (R)		
cm below knee (L)		

Muscular Endurance

Number done in 30 seconds	Initial Test	After 1 month of exercise
Dips		
Sit-ups		
Knee Bends		

Body Fat

Thickness of folded flesh	Initial Test	After 1 month of exercise
Arm		
Abdomen		
Rear Thigh		

Muscular Strength

	Initial Test	After 1 month of exercise
Number of seconds wall sit held		

GRADE 7

TEACHER BACKGROUND INFORMATION

GROWTH AND DEVELOPMENT

THE SKIN

The skin (or integumentary system) is the body's largest organ. It is made up of two main layers - the epidermis (or outer layer) and the dermas (or inner layer). Under the dermas is a layer of blood vessels and fat cells -f-his is sometimes referred to as the subcutaneous or deep layer.

Epidermis

The epidermis consists of dry dead cells which are removed when the skin is rubbed or scratched. They are replaced by living cells which are produced in the inner layer of the epidermis. The epidermis contains the hair tips, the pores (which release perspiration), the pigment that gives the colour to the skin, the dead and living cells.

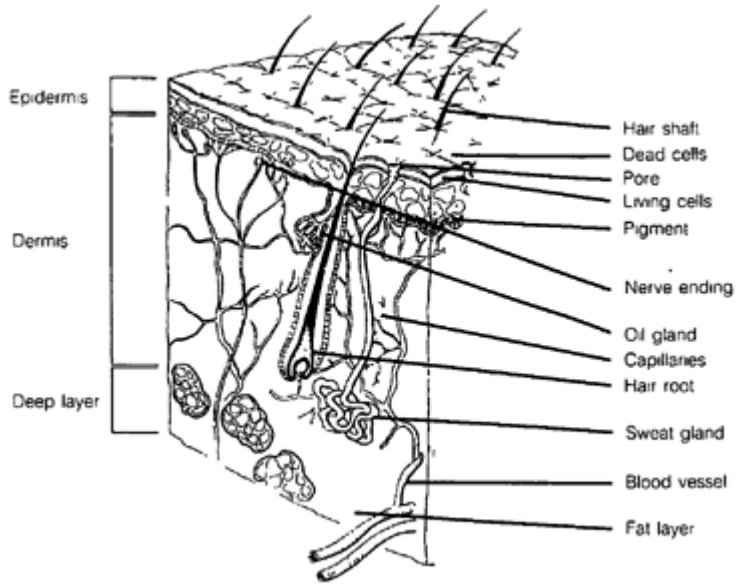
Dermis

The dermas is thicker than the epidermis. It contains sweat glands, oil glands, hair roots (or follicles), nerve endings and capillaries.

Skin is important for the following reasons:

- it protects muscles, bones and internal organs and helps prevent disease,
- it regulates temperature,
- it receives sensations from the environment (heat, cold, pressure and pain).
- it prevents water from either entering or leaving the body,
- it gives people their colour

A CROSS SECTION OF THE SKIN



PROBLEM CONDITIONS OF THE SKIN

Problem	Cause	Brief Description
acne	- contributing factors include heredity, hormones, diet, cleanliness, general health	- most common disorder to affect the adolescent - the oil glands in the skin become clogged and inflamed, causing blackheads and pimples - may lead to permanent cysts and scars if not treated properly - if severe, medical attention is required
allergies	- altered reaction to environment, drugs or emotions	- leads to itching, lesions, eczema - medical attention is often required - treatment includes avoidance of allergy producing stimuli and medical attention
athlete's foot	- fungus	- red, scaly cracks between the toes - can be prevented by complete drying of skin between the toes after bathing and swimming
boils	- bacteria	- bacteria enters skin through a lesion - body fights infection with antibodies that collect at the site - the skin must be kept clean and healthy
burns	- contact with hot objects, liquids, vapours, electricity or some chemicals	- divided into 3 categories: 1.first degree burns - injury occurs to epidermis, leaving scars 2.second degree burns - injury occurs to epidermis and dermas 3.third degree burns - injury occurs to all 3 skin layers and tissue below - injury usually requires grafting in order to heal - infection and water loss are problems - new technology and artificial skin aid in healing - treatment of severe burns requires medical attention - first aid treatment - do not apply creams - put burned area in cool water to lessen tissue damage and pain - seek medical attention
cold sores	- virus (herpes simplex)	- enters the skin and waits for fever or cold to stimulate it - makes watery blisters around the nose and mouth

Problem	Cause	Brief Description
eczema	- allergic reaction	- dry, scaling, cracked, or moist and oozing skin in localized areas - extreme itching may lead to secondary infections if not treated - treatment includes avoidance of allergy producing stimuli and medical treatments
frostbite	- exposure to cold	- crystals form either near the surface of the skin or in underlying soft tissues or fluids The nose, cheeks, ears, digits are the most commonly affected areas There are three degrees of frost bite 1. first degree - the skin becomes white, then reddens with itching and tingling, feeling is lost 2. second degree - the skin becomes purple and blisters 3. third degree - gangrene or tissue death may result from prolonged exposure - treatment of severe frostbite requires medical attention - first-aid treatment - do not rub as tissue damage may occur - apply gentle, firm pressure with a warm hand or place affected part near a warm area of the body - keep clean and dry
impetigo	- bacteria	- pus-filled lesions that rupture and form a yellow crust - usually starts around mouth and nose - treatment includes careful removal of crusts and treatment with antibiotics - diagnosis and treatment by a doctor or nurse is necessary for control and prevention
lice	- insect	- infests hair and hairy parts of body - bites through skin and feeds on blood - visible oval eggs are attached to the base of the hair shaft mainly behind the ear and at the nape of the neck - symptoms include - intense itching of scalp especially at night - visible eggs (nits) - treatment includes - consultation with doctor or nurse - combing out nits - use of medicated shampoo - washing clothing, bedding and towels that have been used in the last 2 weeks in very hot water

Problem	Cause	Brief Description
		- prevention includes: - treating infestation promptly - notifying anyone who has been in close contact in the past 2 weeks - not sharing combs, brushes, clothing, bedding
ringworm	- fungus	- red ring-shaped patches - diagnosis and treatment by doctor is necessary for control and prevention
scabies	- insect (mite)	- adult female mite burrows in the epidermis to deposit eggs - intense itching especially at night one month after infestation - red rash - treatment includes: - consultation with nurse or doctor - medicated lotion - thorough cleaning of body, clothing, bedding and towels - prevention includes (same as lice)
skin cancer	- exposure to ultraviolet radiation of sun, scars following burns, ulcerations may lead to cancer	- uncontrolled growth of cells that invade healthy tissues of the skin - if identified early, skin cancer can be cured - prevention includes: - avoiding too much sun exposure, using sunscreen - seeking medical attention for moles or lumps that enlarge or bleed
sunburn	- exposure to ultraviolet rays of sun	- varying degrees of redness develops within 2-12 hours after exposure - may lead to skin damage - certain drugs may increase sensitivity of skin to sunlight e g , some sulfa derivatives and antibiotics - prevention includes - using sunscreen according to skin colour
warts	- virus	- rough, raised outgrowths occurring singularly or in groups - usually a spontaneous cure within months or years - if persistent or painful, medical attention is required

WAYS TO CARE FOR THE SKIN

Positive health habits related to the skin include:

- keeping the skin clean, washing it at least once a day with soap and water and rinsing thoroughly,
- drying skin thoroughly with a soft towel,
- not picking or scratching skin blemishes, using warm compresses for pimple care,
- using little or no make-up,
- not sharing make-up (especially eye make-up), combs, brushes, etc ,
- using sunscreen to prevent sunburn,
- protecting skin from frostbite by covering it,
- eating balanced meals,
- avoiding smoking (which causes premature wrinkles),
- avoiding contact with hot objects, liquids, etc

FITNESS

Physical fitness can be defined as the capability of the heart, lungs, blood vessels and muscles to function at optimal efficiency. This refers to the condition of the body needed to meet the demands of daily living, both for work and recreation. A person should be able to undertake his/her daily tasks without undue tiredness. Health components of fitness include

- cardiovascular fitness
- muscular endurance
- muscular strength
- flexibility
- body fat percentage

Factors such as speed, balance, agility, power and co-ordination are motor ability components which contribute to the efficiency of movement during skill performance. While development of all these components is important for total fitness, the N. W .T. School Health Program focuses on the health components of physical fitness leaving skill development to be addressed as part of the Physical Education program.

Cardiovascular fitness, the most essential fitness component, refers to the body's ability to continue in strenuous tasks for long periods of time.

A person's life depends on the capacity of the heart, blood vessels and lungs to deliver oxygen and nutrients to body tissues and to remove waste products. Cardiovascular exercise makes the heart and lungs work harder in order to supply the working muscles with oxygen. This kind of activity is often called **aerobics,** which simply means "requiring oxygen." Examples of aerobic activities include swimming, fogging, racquet sports, cross-country skiing and cycling (those exercises which involve large muscle groups). For aerobic exercise to be of value to the cardiovascular system, moderate to strenuous activity should be sustained for at least 20 minutes on a regular basis of 3 times per week (This is the F I T principle described in Lesson 6, Student Activity 7). Strenuous activities are those exercises which involve large muscle groups such as arms, legs and torso and raise the resting heart rate to **about** 150 beats per minute (See Lesson 6, Student Activity 8).

Muscular strength is the force that a muscle can exert against a resistance in one maximal effort. Strength is necessary for good posture, many daily work tasks and recreational activities. For example, muscular strength is required to swing a tennis racquet, lift a box of books or throw a ball. Strength is developed by **isometric and isotonic** kinds of exercise In **isometric** exercise, muscle groups work against each other or against an object that cannot be moved. For example, pressing the palms of the hands together and holding the contraction is an isometric exercise for arm strength. **Isotonic** exercise refers to the contraction of muscles against a moving resistance. Calisthenics and weight lifting involve isotonic contractions, muscles contract and relax. The dynamic movement of isotonics is considered more beneficial in developing strength because the muscles move through a full range of motion. The development of strength results from an increase in the thickness of muscle fibres, rather than from an increase in the number of fibres. This increase in fibre thickness is called hypertrophy and occurs when the muscle is progressively overloaded. The overload principle means that a muscle works against a greater-than-normal resistance. As strength improves, the amount of resistance can be increased.

True muscular strength training involves using the maximum weight or resistance possible so that an exercise can only be repeated two or three times - i e , lifting a very heavy weight. As strength improves, the resistance is increased but the number of repetitions of the exercise remains very low.

While "the average person" needs to develop some muscular strength, muscular endurance is generally the focus.

Muscular endurance is the ability of a muscle to work continually over a period of time. It is required in everyday activities such as shovelling snow, climbing stairs and washing windows. Backpacking, logging and rope lumping all require muscular endurance. Exercises such as sit-ups, push-ups, chin-ups and weight-training performed using the overload principle will develop muscular endurance.

Training for muscular endurance involves selecting a weight or resistance such that a given exercise can be repeated about twenty times before the muscle becomes tired. As fitness improves, either the weight, the number of repetitions, or both can be increased. It is this type of muscular fitness training which most people choose/need to develop. While strength does improve, the focus is on endurance which tones the muscle and reduces fat, but does not add muscle bulk.

Flexibility is the ability of the joints and muscles to move through a full range of motion. The degree of elasticity in muscles and ligaments differs among people and also between joints in the body. Maintaining good flexibility is important to prevent muscle injury and soreness, as well as to enable ease of movement m many activities. Slow, controlled stretching of muscles, as is found in Yoga, is the best method of improving flexibility It is also important prior to other activities because it warms the muscles and increases the blood supply.

Body fat percentage refers to the percentage of a person's total body weight which is represented by fat In women, this should be about 18%, while in men, it should be about 13% It is possible to be overfat without being overweight. A person who gets insufficient exercise will not necessarily be overweight (according to the scales) but may well carry excess fat deposited on top of the unused muscles. Regular exercise which increases blood circulation to working muscles will "burn off" some of the fat While this rarely translates into a weight loss, since muscles are developing while fat is diminishing, it will mean a person looks slimmer and is less prone to fatigue.

In general, a person should be concerned about his or her appearance when looking in the mirror, and about body fat percentage, not about weight per se.

Aerobic exercises and muscular endurance exercises (i.e., those activities requiring a muscle group to perform the same exercise many, many times) are effective in reducing the amount of fat deposited on top of the muscles being worked.

A balanced fitness program does not necessarily mean a fitness class or "gym-style" workout. However, it does mean addressing all five components of fitness, paying particular attention to cardiovascular fitness, and to personal weaknesses and needs. Playing a sport rarely, if ever, addresses all components (Tennis only uses one arms Volleyball does not provide enough continuous aerobic exercise, etc , etc). This is not to imply that playing tennis or volleyball are not good forms of exercise or a good way to improve physical fitness. They are excellent as long as they are supplemented with appropriate other activities.

Many people are not expert enough to know if their preferred sports and activities constitute a balanced fitness program, or disciplined enough to work out on their own. For this reason, physical fitness classes are a popular and safe way to improve physical fitness.

It is important to note that many exercises address more than one component of fitness. Jogging for example would increase cardiovascular fitness, muscular endurance m the legs, especially calf and thigh muscles, and reduce fat deposits on those same muscles. A fitness class, or individual program designed by a qualified instructor, would ensure a balanced fitness program designed to meet the needs and interests of its participants.

The benefits of fitness to health are many:

- better resistance to illness, stress and tension,
- more energy, less chronic fatigue,
- better weight control,
- increased metabolism or burning up of calories,
- better digestion;
- stronger muscles, better posture,
- reduced risk of coronary heart disease,
- increased capacity of the blood to carry oxygen,
- increased capacity of the lungs to take oxygen.

The increased lung capacity causes a stronger pumping action of the heart and lowers the resting heart rate, thus decreasing blood pressure.

Source: Harvey, D and White, D (ed), "Body Systems and Physical Fitness", Health Education Methods Project for Elementary School Teachers, and Barbara Hall, B P H E , Department of Education, **GNWT, Yellowknife**

GD63

PHYSIOLOGY OF EXERCISE

General Rules for Fitness Prescription

- Begin gradually Too much too soon can cause sore muscles.

- Do not overdo. The level of intensity should depend on the individual's goals (fun vs conditioning vs competition). Too high an intensity too soon is not desirable. The end product, fatigue, increases the participant's chances of incurring an injury.

- Exercises should be performed at a pace which allows correct execution. Variation in the form could alter or reduce the effectiveness of the exercise.

- For execution of exercises, use muscle force instead of momentum. For example, standing leg lifts should be performed by lifting and lowering the leg not by swinging it.

- Exercises should be performed through a full range of motion.

- Consideration must be given to any existing musculo-skeletal problems. Any exercises that may potentially aggravate the situation should be avoided. Alternatives should be provided

- The activity program should be appropriate to the individual's training goals and lifestyle It must provide some positive reinforcement or it will be discontinued.

- Everyone has a limit In terms of physical abilities, each person has a ceiling on their optimal performance. This factor exerts a greater influence on those in an intensive training program.

- Frequency of training workouts should be a minimum of 3 times a week and a maximum of 5 times a week. Some activities may be engaged in more frequently. However, intensity and fitness base will serve as a guideline.

- Do not work through pain. Exercise will involve a certain amount of fatigue and may produce some discomfort, but should not produce pain If that is the case, the program content, intensity, and duration should be reviewed.

- A proper program progression moves from the least intense to the most intense back to the least intense components.

- How the individual feels and the heart rate response serve as guidelines for the intensity. Initially the participants should be monitored closely until they are confident of their workout.

- All programs should start with a warm-up that relates to the workout activity. A general conditioning program should begin with gross motor activity, stretching exercises, then light aerobics. Total time should be a minimum of 10 minutes (more on this in the next section).

- The workout of a general conditioning program should consist of a minimum of 20 minutes of aerobics plus muscular strength and endurance work.

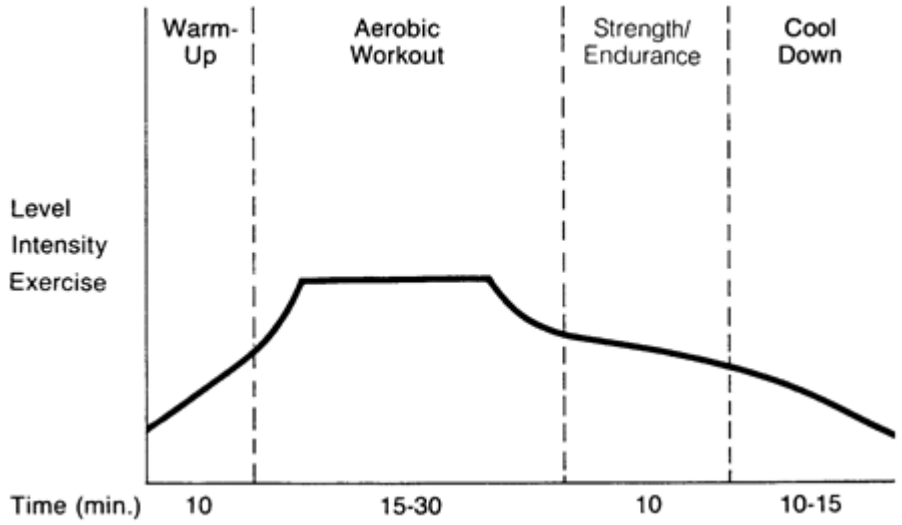
- Beginners should start their aerobic work at a low intensity and minimum duration. Once adaptation occurs, overload can be reapplied, preferably one variable at a time.

- A short cool down of light aerobic work should always follow the strenuous aerobic work.

- Cool down should be a minimum of 10 minutes, time dependent upon intensity of exercise and fitness level of the participants.

- Proper application of the principles outlined is necessary to guarantee safety as well as improvements.

The Basic Activity Session



A) The Warm-Up

Safety begins with the content of the actual exercise class. The initial phase, the warm-up, prepares the body for the more strenuous activity to follow. With regards to safety, a proper warm-up may.

- prevent injury to the muscle
- reduce the risk of subsequent muscle soreness
- help prevent cardiovascular problems in a cardiac "at-risk" population

The purpose of the warm-up is to prepare the body physiologically for the more strenuous activity which is to follow It has been shown to stimulate hormones, increase core temperatures and activate muscle energy stores (Berger, 1982). Combined, these reactions facilitate an easy transition into the workout . Although some research shows no significant improvement in performance, most would agree that a warm-up is beneficial in a coronary prone population and for those engaging in explosive events, this phase is crucial.

Since the warm-up is a preparatory phase, it should relate to the main Task. For example, the baseball pitcher, throwing warm-up pitches, is obviously selecting a different warm-up from the skating drills used by hockey players

For a conditioning program, a general warm-up should start with gross motor activities (for example, walking, side-stepping, arm circles). Basic gross motor activities produce a slight rise m internal tissue temperature which enhances the flexibility component. The warm-up should then move into static stretching (no bouncing), then into a lower intensity version of the workout. By gradually increasing the intensity, the body systems have time to adjust to the heavier demands .

The energy production causes a rise in body and muscle tissue temperature which in turn increases:

(a) "Enzyme activity - This will affect the metabolic reactions associated with the energy systems.

(b) Blood flow and oxygen availability - The implication of this is improved energy production.

(c) Contraction and reflex time - Improved efficiency of muscular movements affects the quality of performance " (Mathews & Fox, 1976, p 245)

The intensity and duration of each component in the warm-up will depend upon the fitness level of the group and the rigors of the workout. Time spent on stretching exercises will depend upon group characteristics.

Class needs - For example, if a participant has a lower back problem or is very inflexible, more time may be spent on the significant muscle groups.

Class interests - The minimal total time of a warm-up is 10-15 minutes (Pollock, 1978). However, if the group enjoys this aspect of the workout, and there is time available, the duration may be increased without compromising the workout.

Program design - The purpose of the training program will influence the composition of the flexibility component. A gymnast or volleyball player will require a greater emphasis on stretching than a baseball player or a logger.

Stretching exercises should follow a logical sequence for example, head to toe, toe to head. A systematic approach guarantees that all major muscle groups are involved and improves the participants' recall of the pattern.

Although a pulse check will determine an adequate warm-up, reference to how the individual feels can serve as another guideline. This encourages the participant to draw a parallel from how they feel to the physiological heart rate response.

B) The Workout

With adequate warm-up, an individual should experience a gradual increase in heart rate, easing into the target heart range. Precautionary pulse checks can be made during the workout to guard against too high or too low an intensity. Once the person has developed a regular routine and is familiar with his/her 'moderately hard' pace, the number of heart rate checks may be reduced.

Beginners should start at the low end of the range and workout for the minimum amount of time. Once adaptation has occurred, overload may be applied by increasing the intensity or duration Increasing both variables at once should be done with caution as it might create too much physical stress for the novice.

A minimum of 20 minutes of the workout should be devoted to the aerobics component in the target heart rate zone. (American College of Sports Medicine, 1978) (refer to Exercise Intensity Guide) Following the 'moderately-hard' intensity aerobic workout, a light aerobic cool down is necessary before starting muscular endurance activities, for example, a slow log to a walk, swinging the arms to increase circulation to all body parts. This will ensure a lower intensity level and discourage lightheadedness or dizziness.

Muscular strength and endurance exercises should include all major muscle groups. Time should be allocated, allowing proper time for the other portions of the session (Refer to muscular strength and muscular endurance - Components of Fitness prescription).

C) The Cool Down

Just as the heart rate had been gradually increased during the warm-up, it should be gradually reduced during the cool down. The objective is to make the transition from the high intensity activity gradually down to the least intensive activity (e g , running to fogging to walking) by employing lighter forms of the aerobic or gross motor activities. Failure to do so could result in blood pooling in the active muscles. This could lead to muscle stiffness, thought to be caused by increased levels of lactic acid and can lead to dizziness, possibly due to reduced venous return.

The cool down is the optimum time to improve flexibility. Research supports low intensity stretching at elevated internal temperatures for permanent lengthening of the connective tissue (Sapega et al, 1981). Stretching should be done for all major muscle groups. If time is limited, emphasis should be placed on the principal muscle groups involved in the workout.

A cool down becomes the body's opportunity to relax from its active exercise state. Waste products resulting from metabolism must be removed. The massaging action of the muscles during exercise improves this removal of wastes from the area and augments venous return Failure to cool down disrupts the massaging action and causes pooling of blood in the formerly active muscles. These factors provoke subsequent muscle soreness and may contribute to dizziness

Do's and Don'ts of Exercise

- **Do not bounce when stretching**

  A sudden force applied to a muscle invokes a stretch reflex within the contracting muscle. Therefore, bouncing, which induces this response, applies a force against a muscle trying to contract. The outcome can range from muscle soreness to serious muscle injuries.

- **Do not exercise if you feel ill**

  The illness could elicit additional fatigue, which increases the risk of injury. Others may be susceptible and also become ill. Take the time off to properly recover.

- **Do not exercise immediately following a meal**

  Allow at least 2-3 hours for digestion before getting actively involved. Food such as fat and meat are slow to digest needing about 3-4 hours. On the other hand, carbohydrates may be eaten up to 2 hours prior to the activity. Eating too soon before exercise could detract from performance and cause muscle cramps.

  For persons with diabetes, exercising just after a meal (1/z to 1 hour) helps to control the rise in blood sugar which normally occurs at that time and reduces the possibility of low blood sugar.

- **Do not continue to exercise if there is pain.**

  Although it is not easy to differentiate, discomfort as a result of exercise is not the same as pain Pain should be a signal to stop or change the exercises.

- **Do not try to make up for lost time.**

  Participants need to realize that if they are away from a program, they should ease themselves back into the routine, rather than continuing from where they had left off.

- **Do not chew gum or eat hard candies during a workout or game.**

  This could cause choking.

- **Do not bend over immediately after cardiovascular exercise.**

  Bending over immediately after jogging may cause you to pass out.

- **Do work at your own pace, try not to compete with others.**

  Guidelines have been provided to encourage a safe and enjoyable program. Trying to outdo the next person contradicts the rationale behind the guidelines.

- **Do get involved in exercises that are FUN!**

Potentially Harmful Exercises and Alternatives

From one point of view, there is no such thing as a safe exercise. However, a well-trained body can do most movements with limited risk of harm.

The reality of fitness classes involves participants who have a wide variety of skills, abilities, histories and experiences with physical activity - and most people are aware that certain movements or exercises can cause them potential harm.

When leaders think of exercise precautions, they usually think about not doing specific exercises such as straight leg setups or double leg raises.

In addition to knowing what exercises to avoid, it is also important to have a strong theoretical understanding of how to design a class that adapts the various components to suit a specific group or individual. Another dimension of exercise precautions involves leaders ensuring that the exercise environment, whether land or water, is a safe and enjoyable place to use. This means checking for slivers in wooden surfaces, holes in floors, inappropriate air and water temperature. A preventive attitude towards program design and the exercise environment can prevent a great deal of potential discomfort.

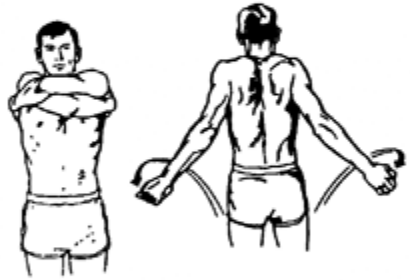
Exercise Precautions

The following list describes some potentially harmful exercises and suggests an alternate activity for each

Exercise	Purpose	Potential Harm	Alternate
Yoga Plow 	stretch the back, neck	Stresses blood vessels to the brain and upper spinal cord by kinking vertebral artery, thereby cutting off circulation It also places great pressure on spinal discs and ligaments, and can cause permanent fibre damage at the base of the spine and the sciatic nerve by stretching nerve fibres beyond their limits	Fetal roll, drop chin to chest 
Hurdler's Stretch 	stretching hamstrings	Often stretches the muscles and ligaments in the groin farther than they were designed to be stretched Chronic groin pull can be the painful result It can also lead to injury of the medial colateral ligament (the one which helps stabilize the knee) because of twist caused by foot flared outward The sciatic nerve is also stressed - more so among adults	The sole of the foot of the bent leg should touch the inside of the straight leg 
Duck Walk and Deep Knee Bends 	muscular strength - quadriceps	Tearing of lateral knee cartilage	Partial knee bends 

Exercise	Purpose	Potential Harm	Alternate
Knee Stretches	stretching the quadriceps	Exceeds the natural skeletal range of motion of the knee - the value of this is questionable It stretches the patellar and collateral knee ligaments, which are needed for stabilizing the knee	Lying supine with your right hand, grab your right ankle and pull toward your body
Situps - straight leg	abdominal strength	After you come up about 30º from the floor the abdominal muscles have been maximally shortened After that point it becomes a hip exercise - they cannot flatten the lower abdomen Also after the 30º point back strain and nerve elongation begin to occur	Bend your legs, do partial situps, cross your arms in front of you instead of behind your head However if you have back trouble, be cautious about even bent leg situps
Cobra	stretch abdominals	It causes pressure on the lower back	Avoid it with people who have back problems Otherwise do not hyperextend the neck, and you can alternate arms and legs and extend

GD71

Exercise	Purpose	Potential Harm	Alternate
Full Head Roll 	stretch the neck	Increases pressure on vertebral discs and nerves Extreme range of motion, especially hyperextension, should be avoided	Lateral Flexion instead 
Shoulder Stand 	stretch upper back and neck	Increases pressure on vertebral discs and nerves Same problems as the Yoga Plow, best to avoid	Use the hug and stretch instead 
Groin Stretch 	stretch groin area	Can be contraindicated if you bend forward from the head and shoulders This puts pressure on the lower back	Be sure to concentrate on making the initial move forward from your hips Keep your lower back flat and look forward 

Exercise Precautions

Basic Rules that Apply to Exercising In the Cold

- Do not underestimate the temperature. A lot of problems occur in temperatures of 1C - 10C when dampness, not severe cold, is the problem Try to get dry as soon as possible.

- Keep the torso warm so that heat can be sent to less insulated areas.

- Avoid sweating. Clothing can serve as an insulator. However, it should allow adequate ventilation to maintain the balance of heat loss and heat production.

- Use your head. Keep it covered to help force the heat to the extremeties. Uncover it when necessary to avoid sweating.

- Dress appropriately. Keep comfortably warm, removing clothes as the internal temperature increases.

Adapted from Manitoba Provincial Fitness Leadership Development Program - Fitness Leader Manual, Manitoba Health, Health Promotion Directorate, Fitness Section.

GD73

GRADE 7

FAMILY LIFE

THE FAMILY LIFE UNIT

INVOLVEMENT OF PARENTS

Parents are the primary educators of their children on family life education. Schools should play a supporting role to supplement parental education.

Generally, most parents support family life education in school. However, they may have a number of questions about the program before they will give that support. For that reason, it is vital for schools to involve parents in discussing the unit, ***before using the materials.***

Parents must be given an opportunity to find out what will be taught in the lessons, to meet the teachers (and other resource people) who will be delivering the program, and to ask questions. This can be done most effectively by holding a parent information session.

This should include:

- the principal of the school
- teachers who will be teaching the lesson
- any resource people, such as the community health nurse, who might be involved with the lessons.

Most parents attending the meeting want to find out about the content, objectives and methods used in the unit. Basic information during the session should include:

- a brief outline of the program
- a sample of some of the activities in which students will participate
- sample handouts
- copies of any activities in which parents will participate during the evening
- translation of goals, etc., as necessary
- viewing of any films which may be used

It is important to emphasize that the purpose of the Family Life unit is to support, and not to replace, the parent or family role and responsibility. The parent information session is one important way for teachers to show that they want and welcome parental support, involvement and concern.

Parent meetings are often a good opportunity to initiate ongoing parenting groups. Parents may decide to meet regularly during the year to discuss topics related to Family Life or other health programs in the school. The G.N.W.T. Family Life Education Consultants in the Department of Health nay be able to assist in the development of parent groups.

Following the meeting, parents will be able to decide whether they want their children to be involved in the lessons.

PARENTS, WHO DO NOT WISH THEIR CHILDREN) TO PARTICIPATE IN THE LESSONS, MAY INDICATE TO THE SCHOOL THAT THEY WILL BE WITHDRAWING THEIR CHILDREN) FROM THIS PARTICULAR UNIT PARENTS MUST MAKE THE FINAL DECISION.

Schools must make alternative arrangements for students who are withdrawn from these classes.

In order to withdraw their children) from the classes, parents must sign a withdrawal form (see sample).

FAMILY LIFE CLASSES

NAME _____

GRADE _____

I do not wish _____ to participate in the Family Life classes which will be offered by the school in the near future.

_____
Parent/Guardian signature

_____
Date

Because of the need to foster a positive classroom atmosphere, teachers need to take time to get to know their students. Teachers should teach the Mental and Emotional Well-Being and the Growth and Development units before introducing the Family Life lessons. Many of the skills which students will be developing in the Mental and Emotional Well-Being unit, such as decision-making skills, communication skills, relationship-building and coping skills, will assist in the development of an atmosphere conducive to effective Family Life education.

FAMILY LIFE

GRADE: 7 **LESSON: 1** **THEME: FAMILIES**

CONCEPT: FAMILIES MAKE IMPORTANT DECISIONS ABOUT THE ROLES AND RESPONSIBILITIES OF MEMBERS

PREPARATION:

VOCABULARY: decisions, unity, alternatives

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
Students will be able to: i) identify decisions which are made within the family	Students: 1. List decisions which may be made within the family.	Background Information Page - Have students brainstorm decisions which families make Decisions might include. - bed-time - where to go on holidays - how money is spent - what time to be home by - household responsibilities - what to do in spare time (TV, job, volunteer work, sports) - whom to socialize with - whether to move to another community - how much TV is watched - whether or not to go to school

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
ii) identify family decisions that affect the roles and responsibilities of its members	2. Select a decision and outline how it affects the roles and responsibilities of family members.	Some decisions which are made within families affect their members' roles and responsibilities . e.g. , the decision as to whether or not the mother will work outside the home Prepare a chart to look at the alternatives. Have students identify how each affects the roles and responsibilities of different family members . eg,

Decision	**Family Members**	**How does it affect their roles and responsibilities?**
mother stays at home to look after children	- mother	- major care-giver - takes care of most household chores (shopping, cleaning, etc)
	- father	- major provider (e g , wage earner, hunter, etc) - participates in child-rearing in evenings and at weekends
	- children	- many things are done for them
mother goes out to work	- mother	- partial wage earner/provider - part responsibility for cleaning, cooking, etc
	- father	- partial wage earner/provider - shares in looking after children, doing chores, etc
	- children	- share m doing chores, etc - look after younger children after school

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
		In small groups, have students select a decision which would affect the roles and responsibilities of family members. e g , - regular attendance at school versus education on the land - choosing the language which will be used in the home Have each group outline the roles and responsibilities on a chart. Ask each group to share its chart with the rest of the class. Discuss.

FAMILY LIFE

GRADE: 7 **LESSON: 2** **THEME: HUMAN DEVELOPMENT AND REPRODUCTION**

CONCEPT: REPRODUCTION ENSURES THE CONTINUATION OF NEW LIFE

PREPARATION: 1. Prepare overhead transparencies of Activity Sheets FL72 and FL74.
2. Prepare a class set of Male Reproductive System worksheet and Female Reproductive System worksheet (Activity Sheets FL73 and FL75).
3. Pocket chart and word strips.

VOCABULARY: epididymus, vas deferens, Cowper's gland, prostate gland, seminal vesicle

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
Students will be able to: i) identify the structure and function of the male reproductive system	Students: 1. Discuss the structure and function of the male reproductive system.	Background Information Page FL79 to FL80 The overall function of the male reproductive system is to produce sperm which, if combined with the egg of a female, will develop into a baby. Refer to Activity Sheet FL72. Use the overhead transparency, a pocket chart and word strips to discuss the structure and function of each part of the male reproductive system.

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES

Reproductive Part	Function
Testicles	produce sperm and testosterone
Scrotum	the bag which holds the testicles
Epididymus	stores mature sperm cells before they enter the vas deferens
Vas deferens	carry the sperm from each testicle to the urethra
Prostate gland	adds fluid to the sperm to make semen
Cowper's gland	releases fluid into the urethra
Urethra	carries urine out of the body
Urethra	carries semen out of the body
Penis	holds the urethra which carries the sperm and urine out of the body at different times
Seminal vesicle	releases fluid which nourishes the sperm and allows it to travel more easily along the vas deferens
Sperm	is the male reproductive cell

Note Although the sperm is not a reproductive organ, it is important for students to know what it is and its function.

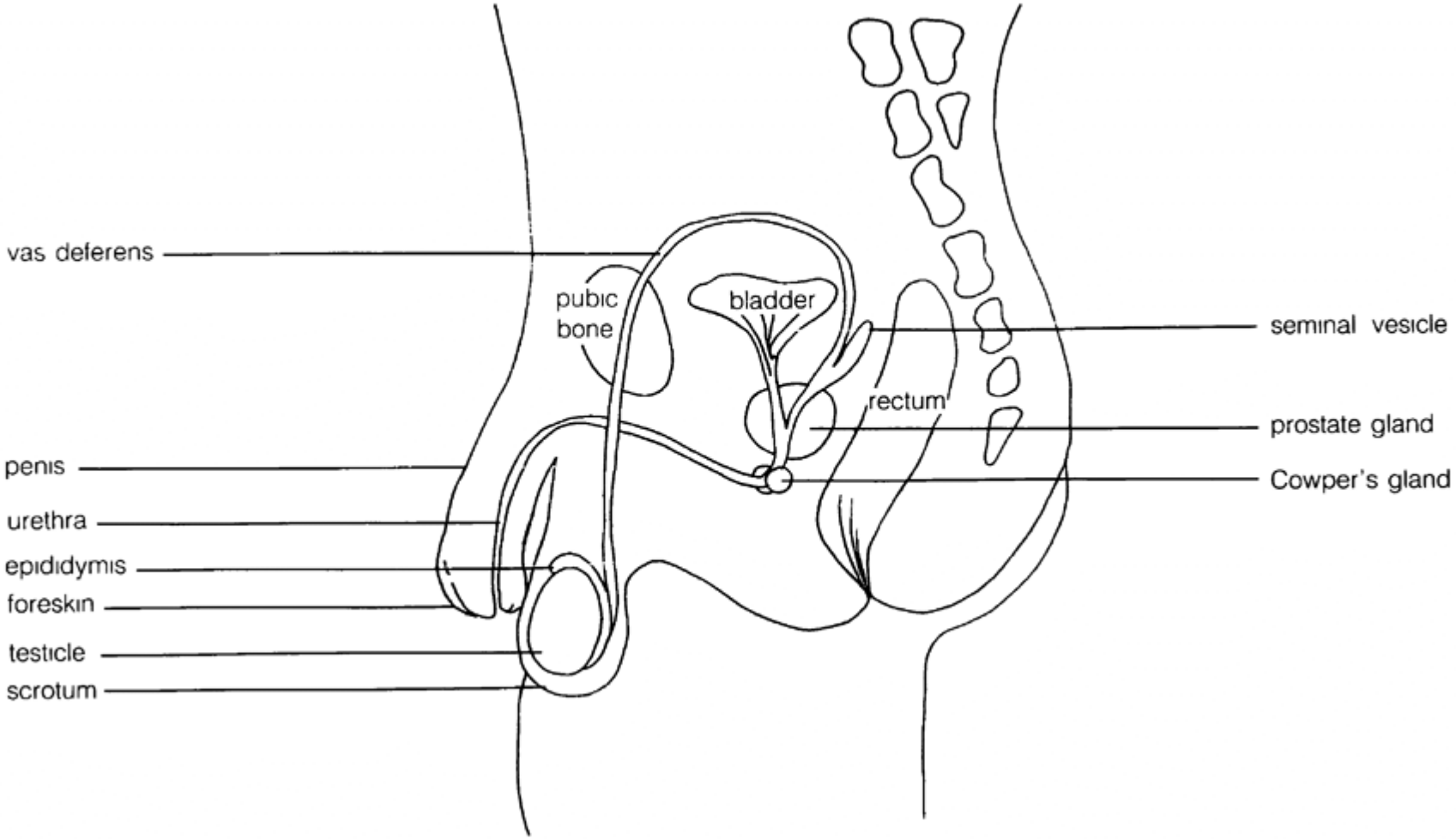
Mix the word strips. Challenge students to match each reproductive part with its function.

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
	2. Complete the Male Reproductive System worksheet.	Refer to Activity Sheet FL73. Have students complete the worksheet individually or in pairs. They can correct their own worksheets from the overhead transparency and pocket chart with sentence strips.
ii) identify the structure and function of the female reproductive system	3. Discuss the structure and function of the female reproductive system.	The function of the female reproductive system is to produce eggs (ova). If an egg (ovum) joins with the sperm of a male it is fertilized. The fertilized egg develops into a baby inside the female's body. Refer to Activity Sheet FL74. Use the overhead transparency, a pocket chart and word strips to discuss the structure and function of the parts of the female reproductive system.

Reproductive Part	**Function**
Ovaries	where eggs develop and are stored
Fallopian tubes	carry the egg to the uterus
Uterus	where the egg grows into a baby
Cervix	the opening to the uterus
Vagina	the opening into which the penis is inserted during sexual intercourse and which then receives the sperm
Vagina	the opening through which a baby is born
Ovum/egg	the female reproductive cell

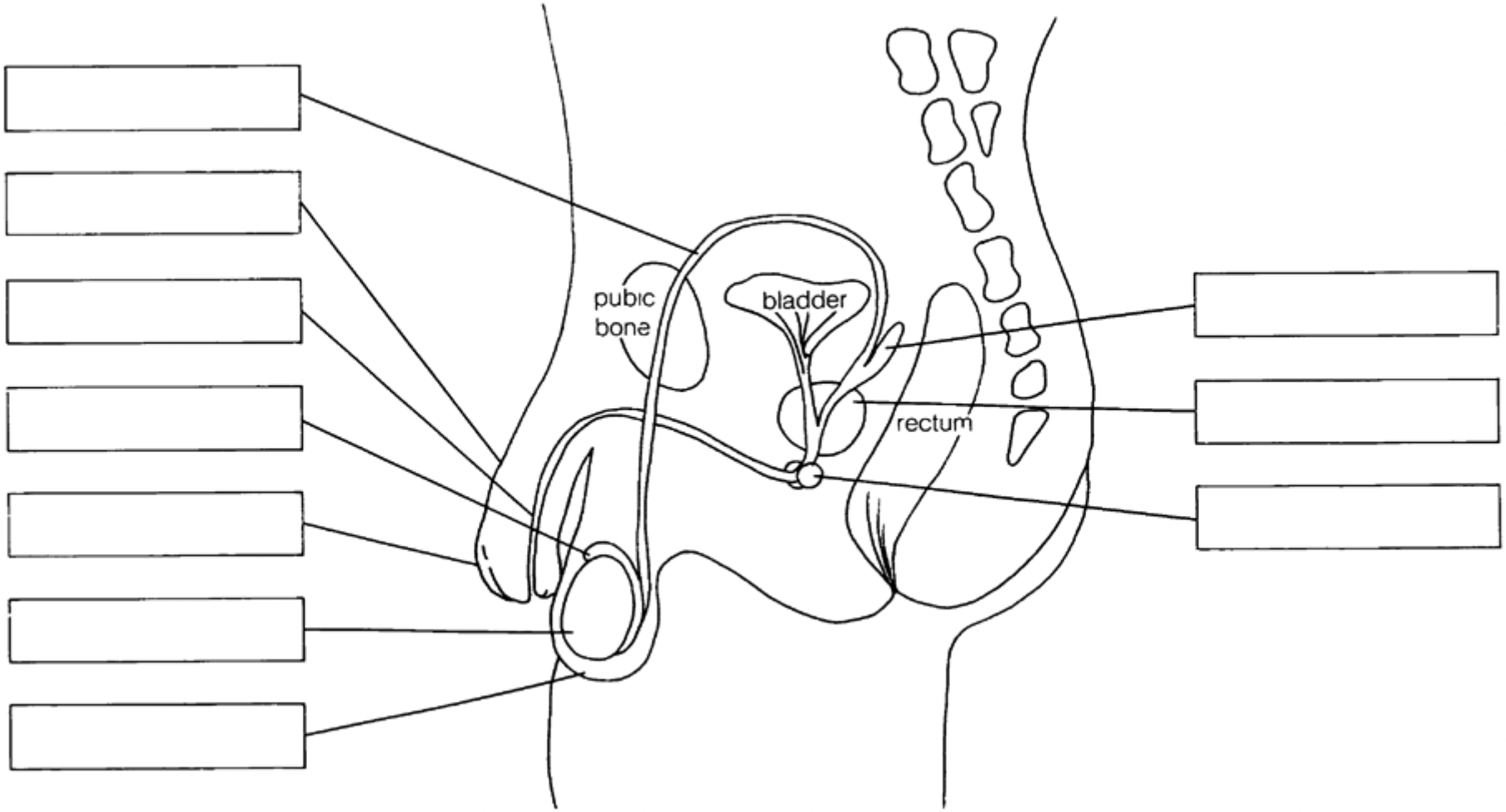
OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
		Note Although the ovum is not a reproductive organ, it is important for students to know what it is and does. Mix the word strips. Challenge students to match each reproductive part with its function.
	4. Complete the Female Reproductive System Worksheet.	Refer to Activity Sheet FL75 Have students complete the worksheet individually or in pairs. They can correct their own worksheets from the overhead transparency and the pocket chart with word strips.

MALE REPRODUCTIVE SYSTEM

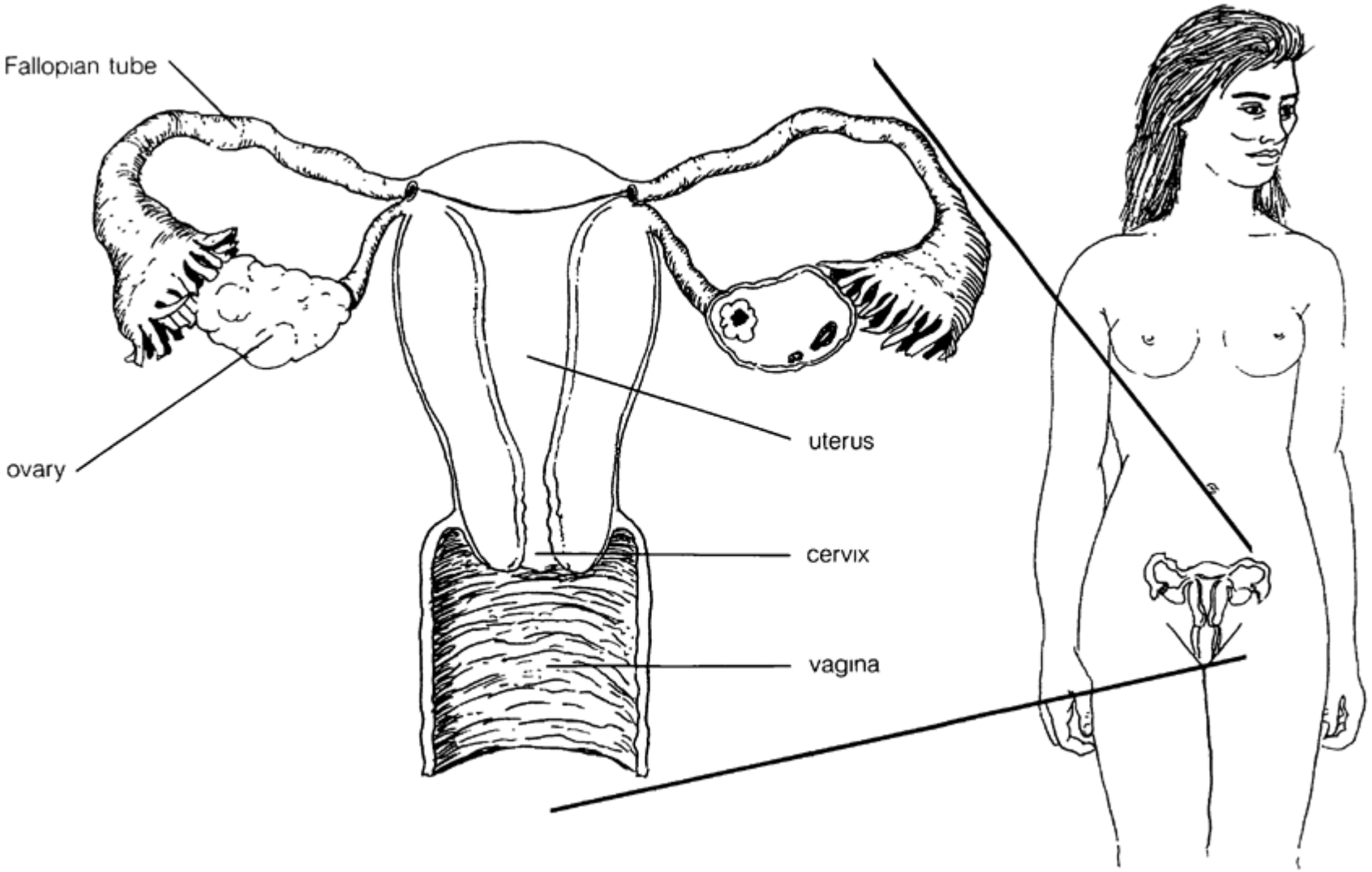


MALE REPRODUCTIVE SYSTEM

In each box, name the reproductive part and briefly describe its function

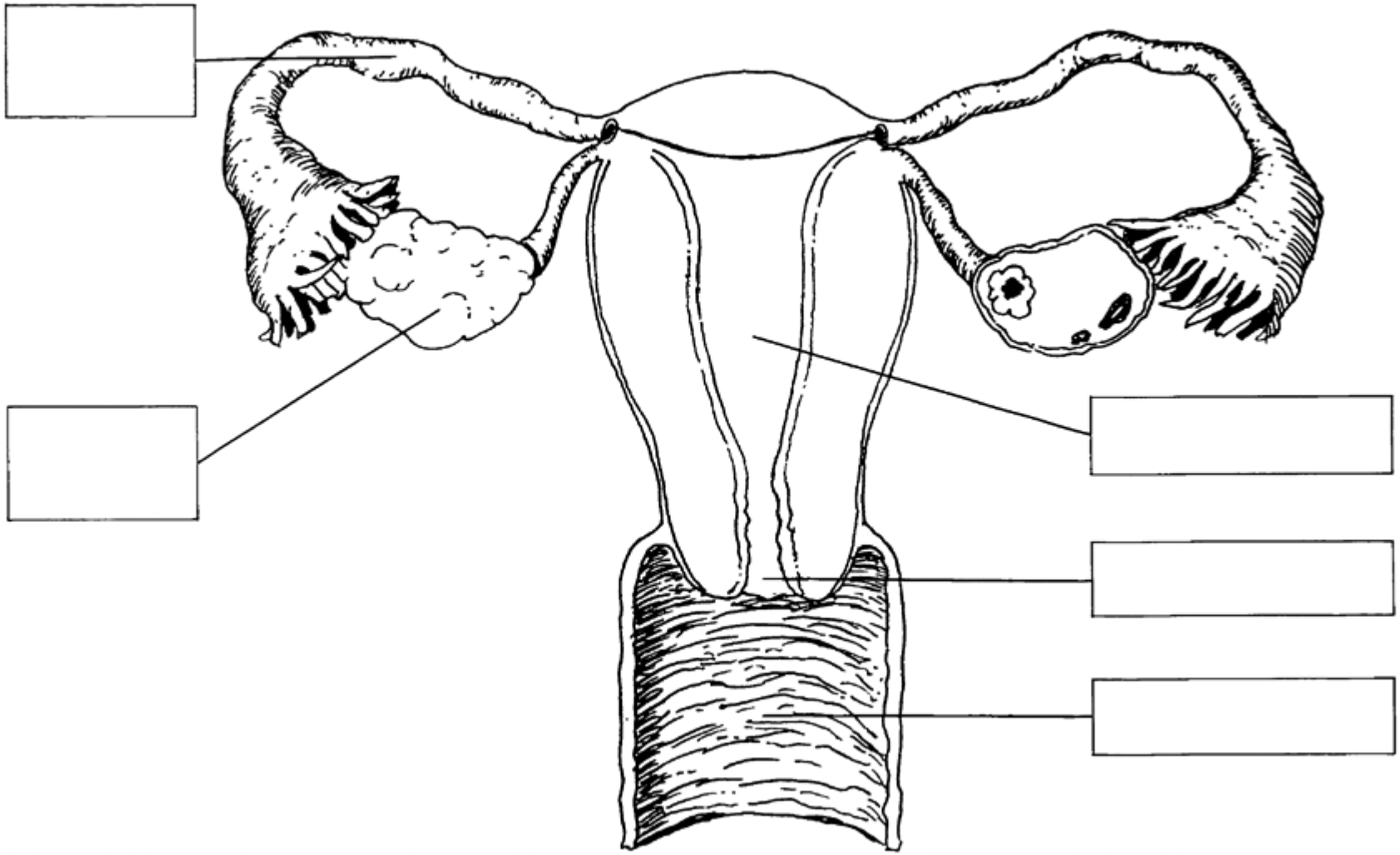


FEMALE REPRODUCTIVE SYSTEM



FEMALE REPRODUCTIVE SYSTEM

In each box, name the reproductive part and briefly describe its function.



FAMILY LIFE

GRADE: 7 **LESSON: 3** **THEME: HUMAN DEVELOPMENT AND REPRODUCTION**

CONCEPT: THE DEVELOPMENT OF REPRODUCTIVE CELLS IS A NORMAL OCCURRENCE IN PUBERTY

PREPARATION: 1 Prepare overhead transparencies of Activity Sheets FL76, FL78
2 Prepare a class set of Events of the Menstrual Cycle worksheet (Activity Sheet FL77)
3 Prepare a class set of the Sperm Development Crossword Puzzle (Activity Sheet FL79A)

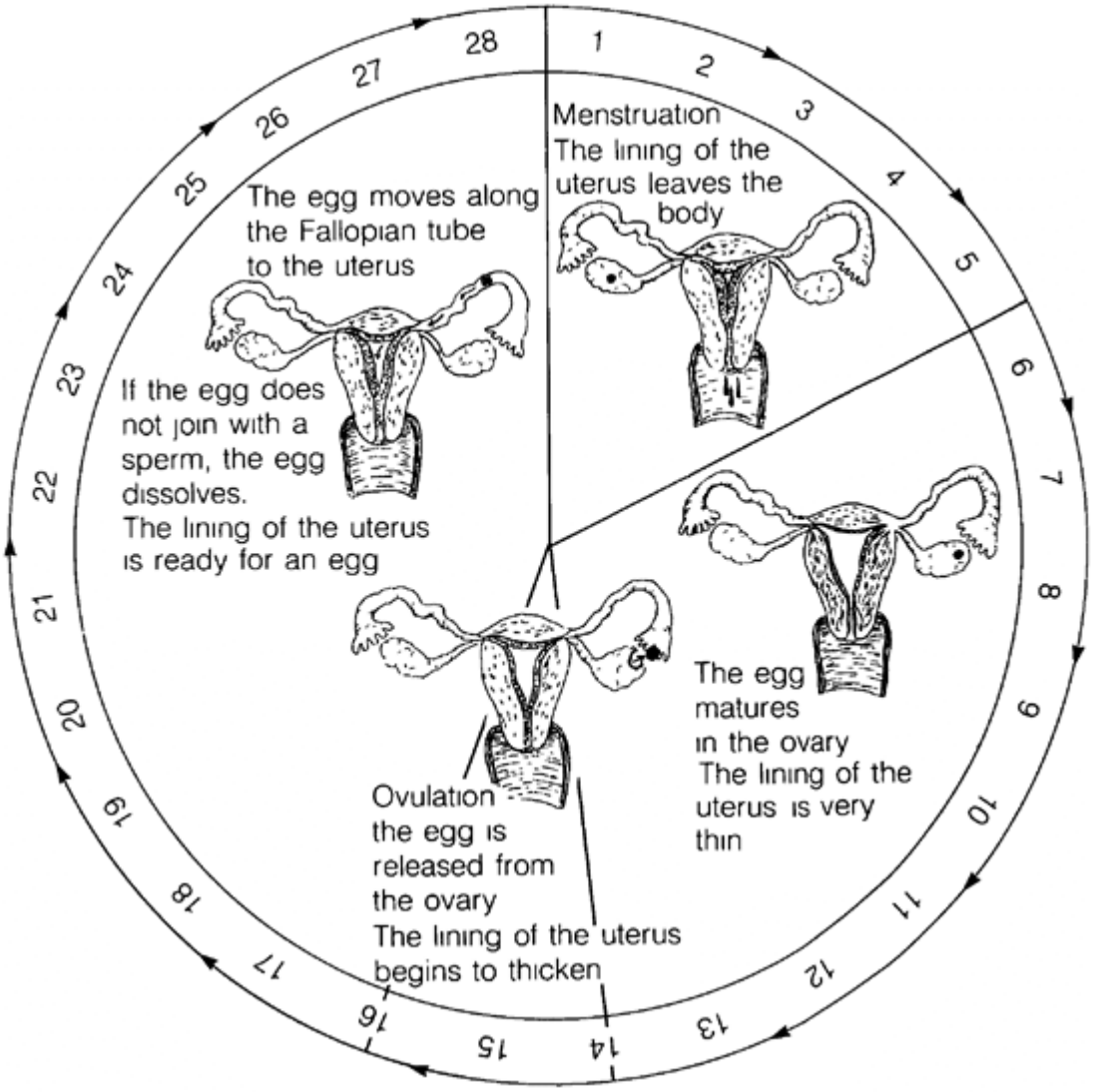
VOCABULARY: ovulation erection ejaculation, development, wet dream

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
Students will be able to:	Students:	Background Information Page FL80 to FL83. The menstrual cycle was taught in Grade 4, Lesson 7 (optional), Grade 5, Lesson 6 and Grade 6, Lesson 6.
i) explain the process of menstruation	1. Define the term 'menstruation.	Use a dictionary and general discussion to define the term. Menstruation is the flow of blood and tissue from the uterus, through the vagina, about once every 28 days. At puberty, hormones cause the ovaries to release eggs (ova). When an egg (ovum) is released, if it is not fertilized by a sperm, menstruation occurs (If it is fertilized by a sperm, the female is pregnant and menstruation does not occur).
	2. Define the term 'ovulation'.	Use a dictionary and general discussion to define the term. Ovulation, or the release of an egg (ovum) from an ovary about once every 28 days, occurs about 14 to 16 days after the first day of menstruation.

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
	3. Describe the significance of ovulation in the menstrual cycle.	The significance of ovulation is that this is the time in the 28 day cycle that a female can become pregnant. It is the only time when a sperm can join with an egg to develop into a new life. Refer to Activity Sheet FL76. Use an overhead transparency to describe the events of the menstrual cycle. Include the following events in the menstrual cycle: - menstrual flow - one egg matures in one ovary - ovulation - the mature egg is released from the ovary - egg moves along the Fallopian tube to the uterus - if not fertilized, the egg disintegrates and passes through the uterus - menstrual flow begins - (if fertilized the egg imbeds itself in the uterine lining and menstruation does not occur The female is pregnant) Ask students the following questions: - How long is a menstrual cycle - For how many days does the menstrual flow occur - When does ovulation occur - What is the importance of ovulation - What happens if the egg is not fertilized? - What happens if the egg is fertilized
	4. Complete Events of the Menstrual Cycle worksheet.	Refer to Activity Sheet FL77. Have students identify each event and write two sentences about each. Be sure they describe events both if the egg is fertilized, and if the egg is not fertilized.

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
ii1) identify personal hygiene practices related to menstruation	5. Brainstorm personal hygiene practices related to menstruation.	Examples of personal hygiene practices include: - washing hands before touching sanitary pads (to prevent contamination of the sterilized pad) - changing pads frequently (to prevent odour and infection) - wrapping and disposing of napkins in garbage cans - cleaning the vulva regularly from front to back (to prevent bacteria spreading from the anus) - bathing/washing regularly - carrying extra pads for use at school/work - knowing where to get pads at school
iii) explain the process of sperm development	6. Describe the development and release of sperm.	Refer to Activity Sheet FL78. Use the overhead transparency to describe the development and release of sperm.
	7. Define the terms 'erection', 'ejaculation and 'wet dreams'.	Use a dictionary and general discussion to define the terms. An erection is when the penis becomes firm It happens because blood flows into the penis. Ejaculation occurs when muscles contract to push semen through the urethra and out of the penis. A wet dream (or nocturnal emission) is a normal process that may occur in males when semen is released from the body during sleep.
	8. Complete the crossword puzzle Sperm Development.	Refer to Activity Sheet FL79A. Refer to Activity Sheet FL79B for answers.
iv) identify personal hygiene practices related to the male reproductive system	9. Brainstorm personal hygiene practices related to the male reproductive system.	Personal hygiene practices include. - cleaning around foreskin regularly (to prevent infection) - wearing protective equipment for contact sports - seeking medical attention for abnormal discharges or possible infection

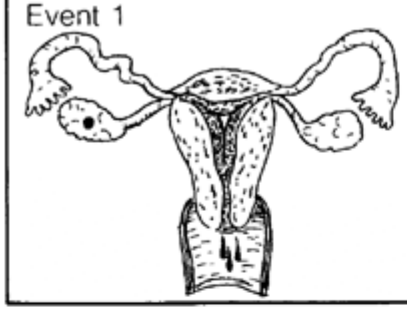
THE MENSTRUAL CYCLE



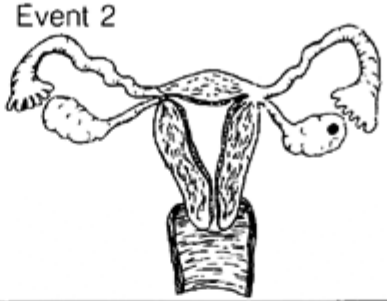
EVENTS OF THE MENSTRUAL CYCLE

Name each event and write one or two sentences about each one.

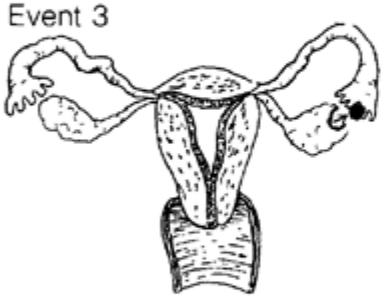
Event 1



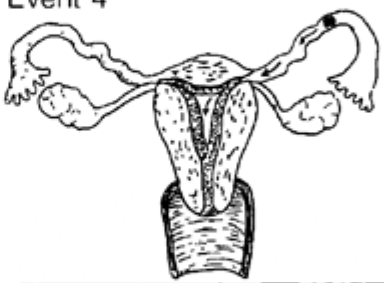
Event 2



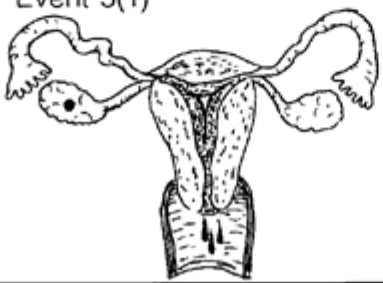
Event 3



Event 4

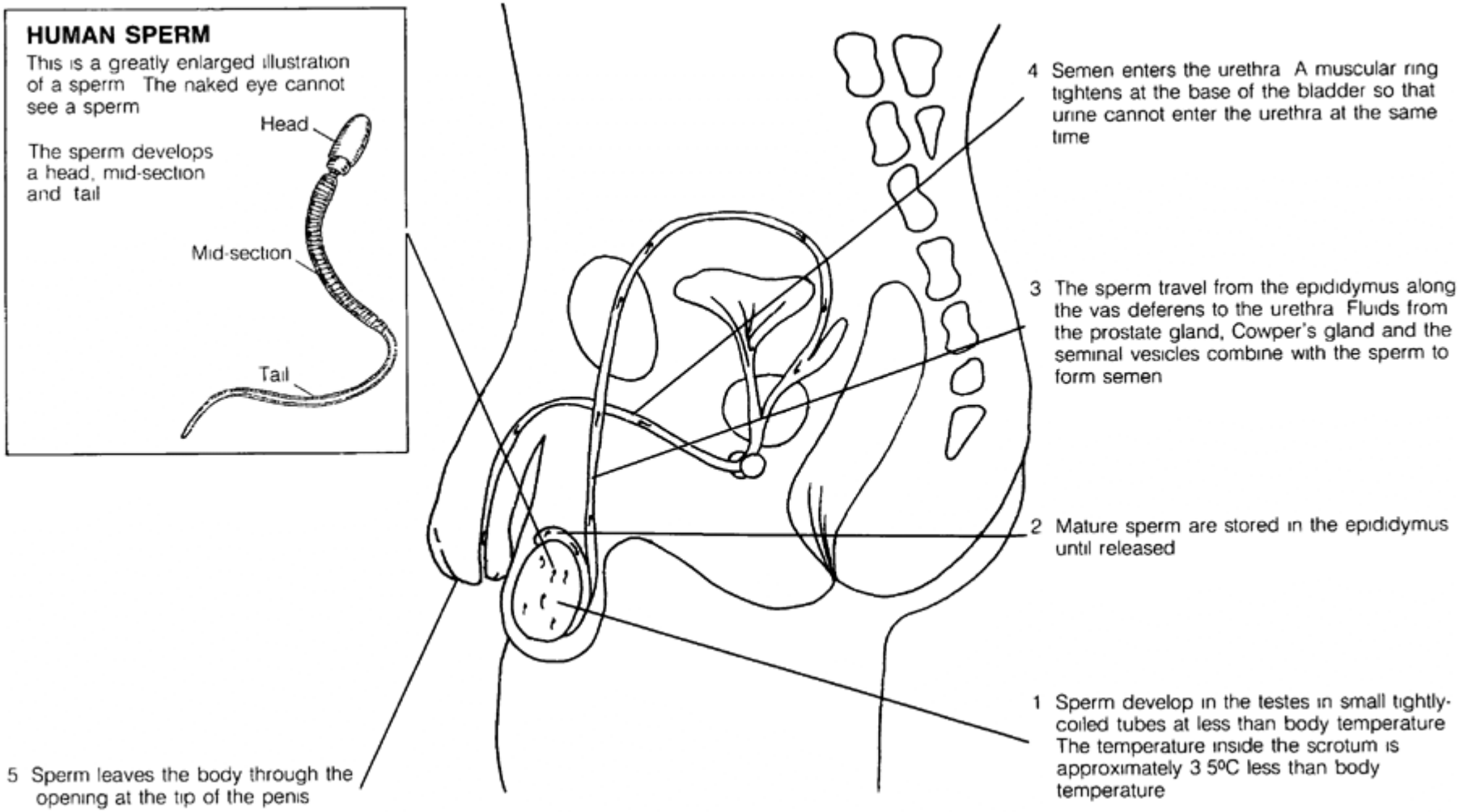


Event 5(1)

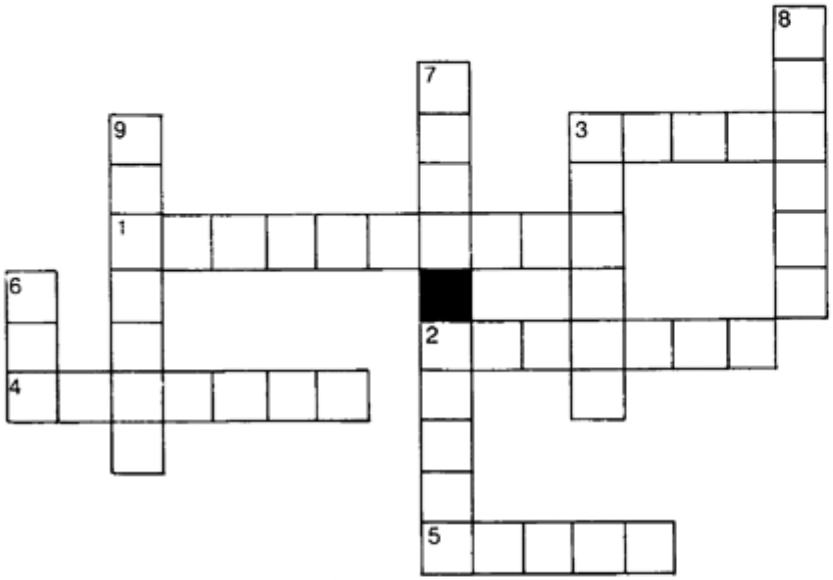


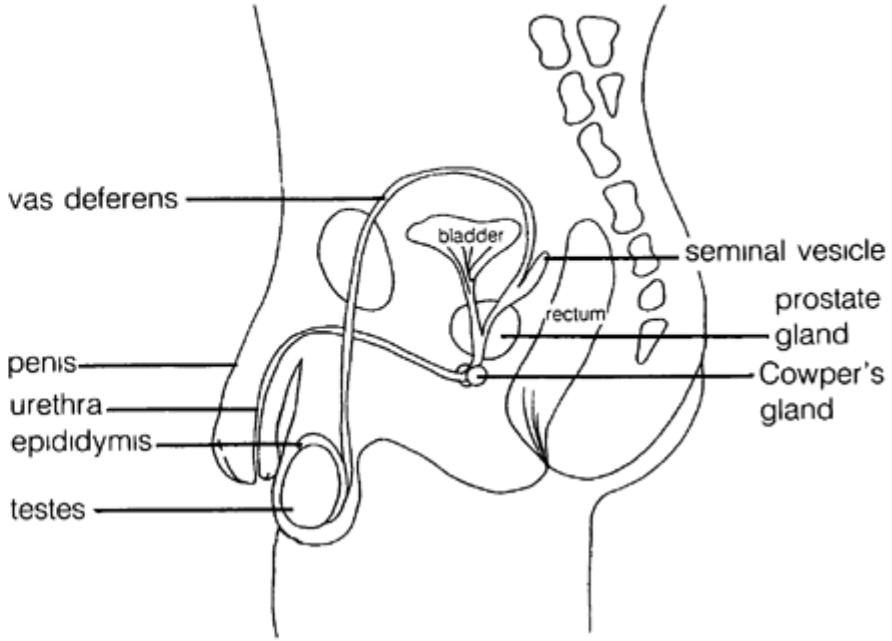
SPERM DEVELOPMENT

Sperm development begins at puberty It is not cyclical as in females, but occurs regularly throughout a man's life.



SPERM DEVELOPMENT





Across

1 Mature sperm are stored in the _____

2 Sperm development begins at _____ and occurs throughout life.

3. Sperm develop inside small tightly-coiled _____

4 The testes are located inside the _____.

5 Sperm combine with glandular fluids to form _____.

Down

2 Muscular contractions push semen into the _____

3 The male sperm cells develop inside the _____

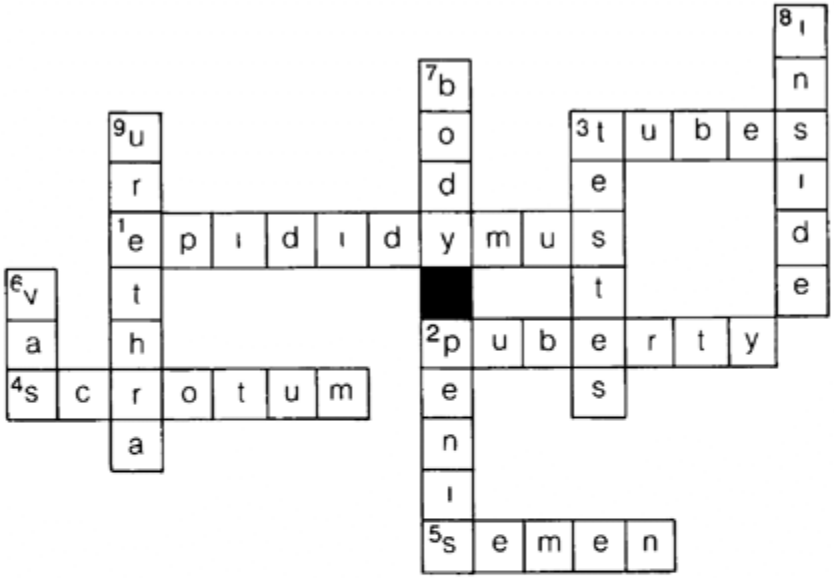
6 Sperm leave the epididymus and move to the ___ deferens

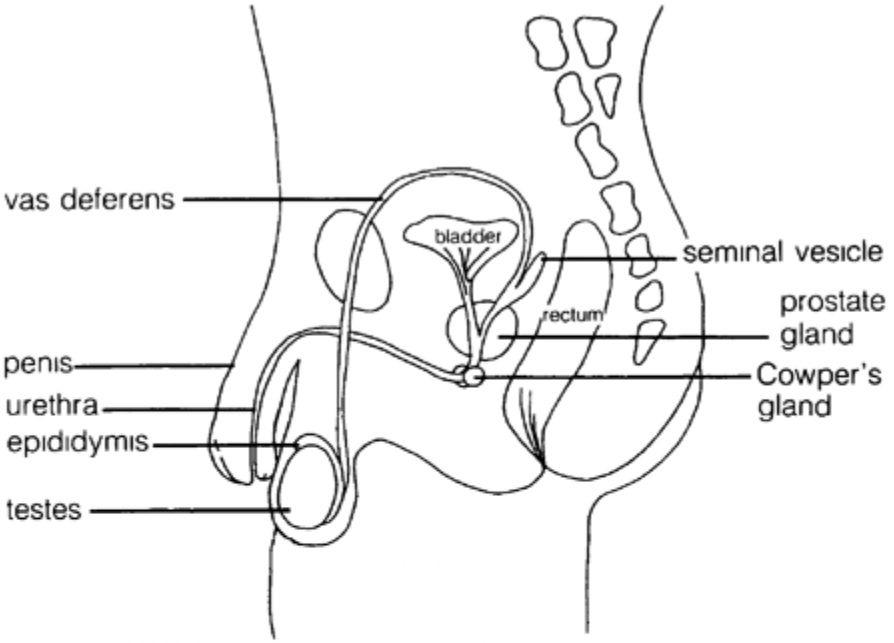
7 The temperature of the scrotum is lower than ___ temperature

8 Sperm cannot develop _____ the body cavity

9 The _____ is a tube inside the penis

SPERM DEVELOPMENT





Across

1 Mature sperm are stored in the _____

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4 The testes are located inside the _____

5 Sperm combine with glandular fluids to form _____

Down

2 Muscular contractions push semen into the _____

3 The male sperm cells develop inside the _____

6 Sperm leave the epididymus and move to the ___ deferens.

7 The temperature of the scrotum is lower than ___ temperature.

8 Sperm cannot develop _____ the body cavity

9 The _____ is a tube inside the penis.

FAMILY LIFE

GRADE: 7 **LESSON: 4** **THEME: HUMAN DEVELOPMENT AND REPRODUCTION**

CONCEPT: HUMAN LIFE BEGINS WITH THE UNION OF AN OVUM AND A SPERM

PREPARATION:
1. Prepare a class set of the Beginning of New Life article (Activity Sheet FL80).
2. Prepare a class set of A New Life Begins (Activity Sheet FL81).
3. Obtain pamphlets on fetal development from the nursing station (for Student Activity 4).

VOCABULARY: fertilization, pregnancy. fetus, fetal, sexual intercourse, prenatal

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
Students will be able to:	Students:	Background Information Page FL83.
i) explain the processes involved in the development of new life	1. Read the article The Beginning of a New Life.	Refer to Activity Sheet FL81. Have students read the article Ask them to paraphrase how a new life begins.
	2. Define the terms 'sexual intercourse', 'fertilization', 'pregnancy', 'fetus', 'fetal development' and 'birth'.	These words are underlined in the article "The Beginning of a New Life" from Student Activity 1. The article explains these terms: Use a dictionary for further definition.

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
	3. Identify the key processes involved with development of a new life.	From the article, have students select the key processes. The key processes are: - sexual intercourse - fertilization of the egg by a sperm - pregnancy - fetal development - birth
	4. Make a `New Life Begins' class book.	Refer to Activity Sheet FL81. Obtain additional materials on fetal development from the nursing station or public health centre. Divide the class into small groups. Have each group take two or three months of fetal development and prepare a page for each month for a class book.. The page should include an illustration and a short paragraph describing the development during that month Make into a class book.

THE BEGINNING OF NEW LIFE

The bodes of the male and female are designed in such a way as to make the development of new life possible. During sexual intercourse, the male places his erect pens inside the female's vagina. Millions of sperm cells move along the pathway from the testes, through the penis and into the vagina. The sperm "swim" into the uterus and Fallopian tubes in search of an egg (ovum).

At ovulation, the egg leaves the ovary and travels along the Fallopian tube to the uterus It lives for about 3 days while sperm live 1 to 3 days.

Fertilization occurs if a sperm finds and enters the egg This marks the beginning of a pregnancy and the development of new life.

The fertilized egg moves to the uterus and attaches itself to the thick lining of the uterus where it will grow and develop. At first, it is known as an embryo After 8 weeks it is called a fetus.

Pregnancy lasts for 40 weeks (from fertilization of the egg to the birth of the baby). During this time, the pregnant woman does not menstruate Her body changes as the fetus inside her grows and develops. Fetal development is the growth of the fetus into a baby capable of surviving outside the mother's uterus.

During the pregnancy, many parents attend prenatal classes to learn about the pregnancy and birth and how to look after the new baby.

When the fetus is ready to be born, the mother (and father) will usually go to a nearby hospital.

During birth, the mother works to push the baby out of the uterus through the vagina (birth canal) and into the world. A doctor and nurse will usually help deliver the baby safely.

A NEW LIFE BEGINS - FERTILIZATION TO BIRTH

TIME	APPROXIMATE SIZE	DEVELOPMENT
1st Day	Smaller than a pinhead 	The egg cell and sperm cell join to form a single cell
7 Days	About the size of this dot • 	The group of cells attach to the uterine lining It is now called an embryo
1 Month	Length 0 6 centimeters 	The heart begins to beat The nervous and digestive systems form The eyes and ears are visible
2 Months	Length 2 5 centimeters 	The embryo has a large head with a brain and facial features The fingers and toes appear The embryo is called a fetus
3 Months	Length 7 5 centimeters 	The face is clearer The first signs of the sex of the fetus appear The excretory system develops rapidly
4 Months	Length 15 centimeters 	The fetus kicks its legs and moves its arms The skin develops
5 Months	Length 25 centimeters 	The rate of growth slows Fine hair develops The mother and doctor can listen to the fetal heart The fetus can suck its thumb

TIME	APPROXIMATE SIZE	DEVELOPMENT
6 Months	Length 30 centimeters 	The fetus moves more often The eyes are open Outside sound or pressure can increase fetal heartbeat
7 Months	Length and weight vary 	The fetus is fully developed but does not have enough fat cells to control body temperature Will need to be in an incubator if born Greatest change in length and weight occurs during this month
8 and 9 Months	Length 46 to 56 centimeters Weight 2 5 to 3 5 kilograms 	The organ systems complete their development Fat cells form on the body The baby is born

Source *Family Living and Human Reproduction.* Columbus, OH Charles E Merrill, 1982, pp 38-39

FAMILY LIFE

GRADE: 7 LESSON: 5 THEME: TEEN DECISIONS

CONCEPT: ADOLESCENTS MAKE IMPORTANT DECISIONS RELATED TO THEIR OWN SEXUALITY

PREPARATION: 1. Prepare a class set of Sexual Decisions Case Studies (Activity Sheet FL82).

VOCABULARY: sexuality, abstinence

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
Students will be able to:	Students:	Background Information Page FL84. Adolescents, as part of their growth and development, have to make important decisions related to their own sexual behaviour. These personal decisions are based on values, beliefs and knowledge.
i) explain the reasons for and against sexual involvement by young people	1. List reasons why young people may become sexually involved and reasons why they may postpone sexual involvement.	Divide the class into small groups. Have each group record their responses in two columns on chart paper.

Reasons why young people may become sexually involved	**Reasons why young people may postpone sexual involvement**
- pressure from boy/girl friend - desire to be part of the group - "it just happens" - societal expectations	- moral reasons - parental expectations - fear of pregnancy or sexually transmitted diseases

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES

<table>
<tr>
<td></td>
<td></td>
<td>
<table>
<tr><td>- curiosity
- to express love/caring
- for pleasure
- desire to appear grown-up
- need to feel loved/lovable
- sexual assault (incest, rape,threats)</td><td>- either or both partners not ready for sexual involvement
- fear of damage to reputation
- decision to wait until commitment to relationship is made</td></tr>
</table>
Have each group report back to the class Discuss as a class.
Keep this chart for use with Student Activity 6.

ii) identify the advantages and disadvantages of sexual abstinence for young adolescents

2. Define the term 'sexual abstin ence'.

Use a dictionary and general discussion to define the term.

Sexual abstinence is a responsible choice made by young males and females to avoid sexual activity until either marriage or a time when they can assume full responsibility for the consequences of sexual involvement.

3. Brainstorm the advantages and disadvantages of sexual abstin- ence for young adolescents.

Record responses on experience chart.

<table>
<tr><th>Advantages</th><th>Disadvantages</th></tr>
<tr><td>- freedom from fear of pregnancy and sexually transmitted diseases
- freedom from guilt
- satisfaction of being m control of one's own life
- time to develop commitment to relationship</td><td>- continued pressure from partner and/or group
- possible termination of relationship
- risk of health problems (especially mental, social)</td></tr>
</table>
Discuss as a class.
Keep this chart for use with Student Activity 6.
</td>
</tr>
</table>

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
iii) explain why sexual abstinence is a responsible choice for young adolesents	4. Define the term 'values'.	Use a dictionary to define the term. Values are standards, or ideals, upon which actions are based.
	5. List universal values and give examples of each.	Universal values are basic moral standards that guide individual and society behaviours They include: RESPECT - for self, family and others KINDNESS - to family, friends and others A SENSE OF CARING HONESTY AND JUSTICE - to all people COMPASSION – sympathy NON-EXPLOITATION - not hurting or exploiting others In small groups, have students give examples of each.
	6. Identify statements related to sexual involvement that support or violate universal values.	In small groups, have students look at the responses the class gave in Student Activities 1 and 3. Categorize them into those that support and those that violate universal values. e g, rape - violates respect and non-exploitation
	7. Explain why sexual abstinence is a responsible choice for young adolescents.	Refer to Activity Sheet FL82. In small groups, have students choose one of the case studies and brainstorm reasons why they think sexual abstinence is a responsible choice in these situations. They can then write their own case studies for the groups to discuss.

SEXUAL DECISIONS CASE STUDIES

Case Study #1
Why is sexual abstinence a responsible choice for James?

I don't have a lot of experience with girls. Other than talking at school or going to the game hall with a crowd of other kids, I've only ever had one real date. I took Sarah to the big dance we had a few weeks ago at the community hall. But boy what a date! I don't know why I like Sarah so much but it's nice to spend time with someone who seems to notice my good qualities. I can tell that this is going to develop into a real romance but some of my friends seem to want it to develop faster than I do. A lot of the guys are already teasing me about being a "virgin" and bragging about their own achievements. I think a lot of their experiences are make believe but they make me feel left out and like a real loser.

Case Study #2
Why is sexual abstinence a responsible choice for Rebecca?

When I first started dating Jason, it didn't take us long to discover kissing. We had a lot of fun until Jason started demanding more and more affection. He pouts when I don't go along with what he wants and he tells me he loves me when I do I think I love him too but I wish we would spend more time having fun like in the old days, and less time arguing about sex.

FAMILY LIFE

GRADE: 7 **LESSON: 6** **THEME: TEEN DECISIONS**

CONCEPT: **THERE ARE RISKS AND CONSEQUENCES TO MATERNAL AND CHILD HEALTH RELATED TO ADOLESCENT PREGNANCY**

PREPARATION: 1. Prepare a class set of "Bernice's Baby" Story (Activity Sheet FL83).
2. Prepare an overhead transparency of Activity Sheet FL84.

VOCABULARY: risks consequences premature, anemia, toxemia, hemorrhage

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
Students will be able to: i) identify the risks and consequences to maternal and child health related to adolescent pregnancy	Students: 1. Read the story "Bernice's Baby" and identify some of the risks and consequences to both the mother's and baby's health.	Background Information Page FL85. Refer to Activity Sheet FL83. Record student responses on the possible risks and consequences of adolescent pregnancy in two columns as follows: **Mother's health** / **Fetus's/Child's health** - higher rates of pregnancy complications / - lower birth weight Refer to overhead transparency (Activity Sheet FL84). Use the overhead transparency and the student responses to discuss the possible risks and consequences of adolescent pregnancy.

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
		It should be noted that this lesson is focussing on potential health problems related to adolescent pregnancy. It is also necessary to explain that these do not happen in every adolescent pregnancy.
	2. Participate in a discussion on decisions which Bernice and Richard lave to make.	Have students brainstorm some of the consequences which Bernice and Richard will have to consider. e g , - will they marry - will Bernice be able to go back to her job? - will Bernice have enough money etc In small groups, have students discuss these problems. Report back to the entire class.
	3. Write a story about an adolescent mother and her baby.	Either individually or in small groups, have students write a story about an adolescent mother and her baby. It should include some of the risks and consequences and how they deal with these e g , because her family supports her. Ask volunteers to share their stories with the rest of the class.

BERNICE'S BABY

Bernice dropped out of school the year her father died. She was not quite 16 but she thought it would be better to find a job and help pay some of the bills for her large family She got a lob in the restaurant at the local hotel She liked it because of the money and also because she got to meet a lot of people

That was how she met Richard. He was in town for a summer job and came to the restaurant every day for coffee. Pretty soon Bernice and Richard were gong out regularly to dances, bingos and parties Bernice had a good time with Richard but she was always careful to get to work in good shape the next day After all, she needed that job and so did her family

However, near the end of the summer when her period was late and she felt tired and sick a lot, she learned that she was pregnant At first, she was shocked and scared but she was sure that Richard would help her work something out That night when she told Richard, he explained that he did not want to change his plans and stay on in her community - in fact, he had a girlfriend "back home"

In desperation Bernice turned to her family and they took the news much better than she'd expected Even with her family's support, however, the pregnancy was not a very easy one. She missed a lot of work because her blood pressure was high and she had something called toxemia that made her look fat and puffy Also, she couldn't afford the kind of food the nurse told her to eat - milk and fresh vegetables were just too expensive.

Bernice worried a lot about squeezing an extra person into their already crowded house but, of course, there was nowhere else for her and the baby to stay.

Geraldine arrived nearly a month early. She was adorable but very tiny Geraldine had to stay in the hospital down south for nearly 6 weeks Of course, Bernice stayed with her but she was lonely and depressed about being so far from her family. She loved Geraldine and hated her at the same time

Bernice had felt so grown up when she got her job at the restaurant Now she didn't feel grown-up at all - she just felt the pressure of adult responsibilities

RISKS AND CONSEQUENCES TO MOTHER'S AND CHILD'S HEALTH RELATED TO ADOLESCENT PREGNANCY

Mother	Fetus/Child
- higher risk of pregnancy complications and birth difficulties e g., premature baby, long labour - difficulties because of poor diet, poor prenatal care, incomplete physical growth of mother - medical risks such as haemorrhage, high blood pressure, anaemia, toxemia - may have to drop out of school - may have little money, may need assistance - mental and emotional health problems e g , loneliness, isolation, low self-esteem, guilt - problems about what kind of job, if any, is available to her - pressure to marry - higher risk of divorce if married at a young age - poor housing because of little money - problems handling pregnancy, a relationship and growing up at the same time	- higher rate of infant mortality, deformities, low birth-weight, lower intellectual potential - complications related to tobacco and alcohol use e g , fetal alcohol syndrome - less stimulation for child for growth and development - increased likelihood of childhood diseases e g ,respiratory problems - increased risks of child abuse

FAMILY LIFE

GRADE: 7 **LESSON: 7** **THEME: TEEN DECISIONS**

CONCEPT: EFFECTIVE USE OF ASSERTIVENESS SKILLS CAN HELP ADOLESCENTS DEAL WITH SEXUAL PRESSURES

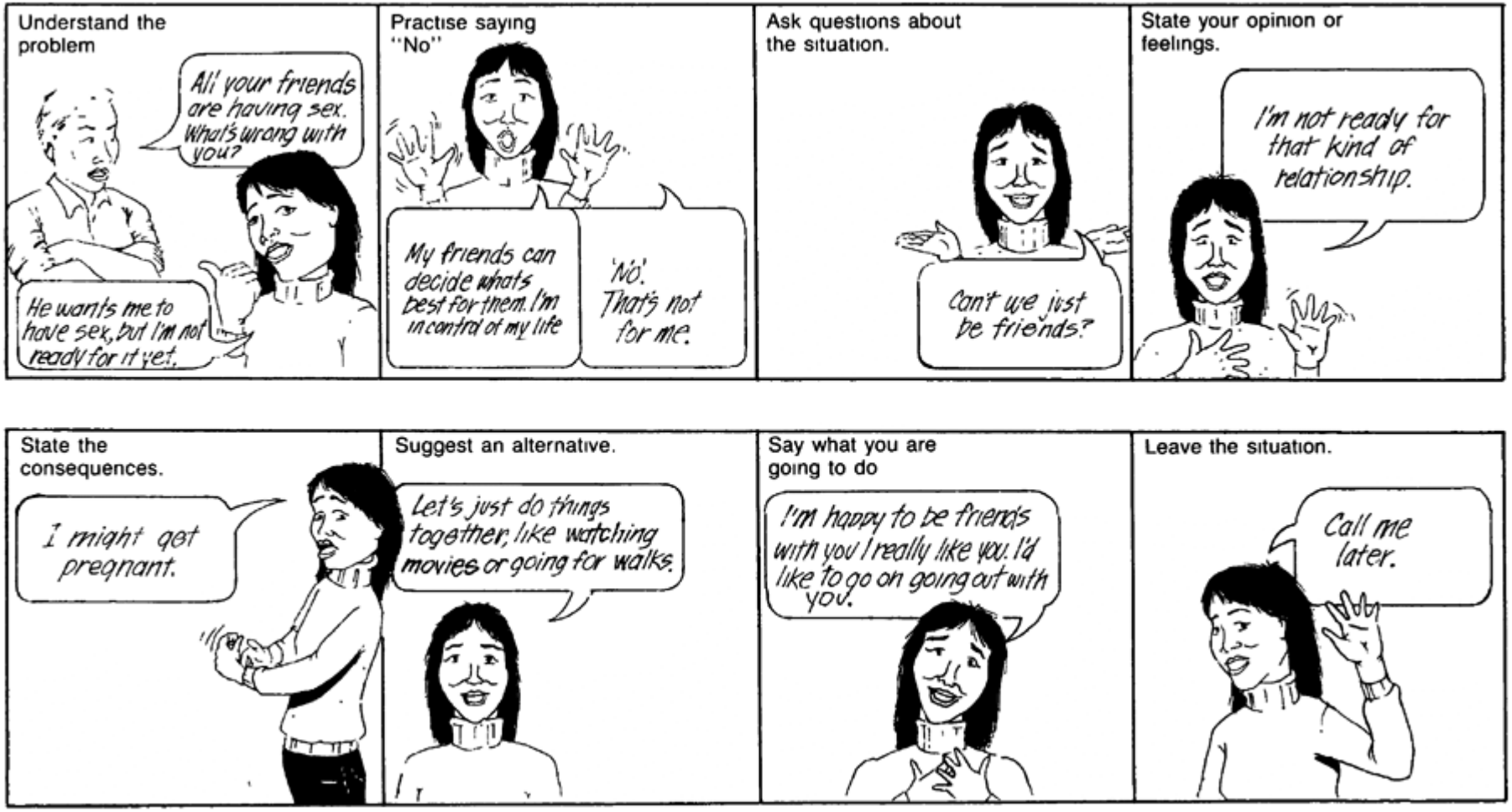
PREPARATION: 1. Prepare an overhead transparency of Activity Sheet FL85
2. Prepare enough copies of Sexual Pressures Case Studies for a number of small groups (Activity Sheet FL86)

VOCABULARY: refusal process, sexual pressure assertive, response

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
Students will be able to: i) demonstrate the steps in the refusal process	Students: 1. Review the steps in the refusal process.	Background Information Page - Refer to Activity Sheet FL85. Using the overhead transparency, review the steps in the refusal process. These were taught in Mental and Emotional Well-Being Unit, Grade 5, Lesson 4. The steps include: - understand the problem - practise saying 'No' - ask questions about the situation - state your feelings (in 'I' messages) - state the consequences - suggest an alternative - say what you are going to do - leave the situation

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
ii) describe assertive responses that allow a person to say 'No' to sexual pressure	2. Observe a demonstration of assertive responses to sexual pressures.	Use one of the case studies from Activity Sheet FL82, Lesson 5, or make up your own. Have two students role play an assertive response for the whole class. Discuss the responses, alternative responses and feelings of the people involved.
	3. Define "assertiveness".	Being assertive means stating your thoughts simply and honestly Assertive people are pleasant and state their point of view without embarassing or hurting others Assertive people say what they mean and invite others to do the same In a situation involving pressure for sex: - the **passive** person might go along with something s/he feels uncomfortable with - the **aggressive** person might say, "Keep your hands off me you jerk" - the **assertive** person might say, "I feel very uncomfortable when you do that Please don't "
	4. Demonstrate assertive responses.	Refer to Activity Sheet FL86 Divide class into groups of two or three. Have each group select a case study to role play, demonstrating assertive responses. Ask each group to role play their responses to the rest of the class. Discuss.
iii) explain how assertiveness skills can help adolescents deal with sexual pressures	5. Discuss how assertiveness skills can help adolescents deal with sexual pressures.	In small groups, have students discuss how assertiveness skills can help them to deal with sexual pressures. Record student responses. Assertiveness skills help because - they let a person say 'No' without feeling upset or guilty - they help a person maintain and show respect - they let a person feel positive about him/herself Have one person from each group report back to the whole class. Discuss.

FOLLOW THESE STEPS



SEXUAL PRESSURES CASE STUDIES

1 Dane has lust started dating Robert. Robert invites Diane to his place to watch a new video No one else will be there because his parents and brothers are out.

Roleplay Diane's response

2 Vic and Cathy have been dating for a while. Cathy likes having Vic as a boyfriend. One day Vic starts to talk about his friends having sex with their girlfriends. He wants to have sex with Cathy and starts to pressure her.

Roleplay Cathy's response.

3 Janet and Jack are part of a group. They do a lot of things with the group Now Jack wants to date Janet on her own and go steady with him Janet is happy as part of the group.

Roleplay Janet's response

4Ted has threatened to end his relationship with Margaret if she doesn't have sex with him.

Roleplay Margaret's response.

5 Pat and Barb have been hanging out together for several months They often pet heavily Pat feels Barb encourages him to get excited He wants to cool things down for a while

Roleplay Pat's response

6 Charlotte and Bernie had sex one evening after a party Bernie feels Charlotte expects that to happen now, but he doesn't want to because he's not ready for that kind of relationship

Roleplay Bernie's response.

FAMILY LIFE

GRADE: 7 **LESSON: 8** **THEME: SEXUALLY TRANSMITTED DISEASES**

CONCEPT: SEXUALLY TRANSMITTED DISEASES ARE SERIOUS COMMUNICABLE DISEASES THAT CAN BE PREVENTED

PREPARATION: 1. Prepare a class set of Chlamydia and Gonorrhea Fact Sheets (Activity Sheets FL87A and FL87B).
2. Prior to the class, invite a community health nurse or doctor to visit the class to discuss sexually transmitted diseases .

VOCABULARY: sexually transmitted diseases, ectopic pregnancy, sterility

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
Students will be able to: i) define sexually transmitted diseases	Students: 1. Define the term 'sexually transmitted diseases'.	Background Information Page FL86 Sexually transmitted diseases (STDs) are a range of diseases that are spread from person to person, mainly, though not exclusively, through sexual intimacy. They are serious and sometimes fatal infectious diseases, although most can be controlled and cured. There are about twenty identified STDs It is possible to have more than one STD at the same time. Some common STDs are gonorrhea, chlamydia, syphilis, pubic lice, genital herpes and, now, AIDS. Under the NWT Public Health Act, nurses/doctors are required to report the following STDs to the Chief Medical Health Officer for the N .W .T.. - syphilis - gonorrhea - AIDS/AIDS infection - chlamydia

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
ii) identify the causes, characteristics, conse quences, treatment and prevention of chlamydla	2. Read the sheet on chlamydla 3. Describe causes, characteristics, treatment and prevention of chlamydla	Refer to Activity Sheet FL87A. Divide the class into five groups. Have each group take one aspect of chlamydla, research it and record their responses on a chart.

Causes	Character-istics	Conse-quences	Treatment	Prevention
- germ called ureaplasma - sometimes unknown - organism	- discharge from the penis - burning or itching around the opening to the penis - rectal discharge - often no symptoms - vaginal discharge - pain, itching, burning around vagina	- may spread through reproductive system - may give abdominal pain, fever, nausea, headeache, vomiting - may cause scarring in the reproductive system - may cause sterility - may create health prob-lems in the unborn baby - may cause inflammation of the joints	- seek medical attention - take prescribed antibiotics as instructed - return to doctor/nurse if symptoms persist - testing and treatment of sexual part-ner(s) - abstain from sexual activ-ity until free from infection - confidential	- sexual abstinence - if sexually active, use a condom - if you think you have chlamydia, get treatment - ask part-ner(s) to be tested and treated - if sexually active, hav-ing only one partner who is free from infection

Discuss with the whole class.

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
iii) identify the causes, characteristics, consequences, treatment and prevention of gonorrhea	4. Read the sheet on gonorrhea. 5. Describe causes, characteristics, consequences, treatment and prevention of gonorrhea. 6. Discuss sexually transmitted diseases.	Refer to Activity Sheet FL87B. Divide the class into groups. Have each group take one aspect of gonorrhea and research it. Have each group record their responses on a chart. Discuss with the whole class. Invite the community health nurse or doctor to the class to discuss sexually transmitted diseases. Have students prepare questions which they want to ask ahead of time.

Causes	Character-istics	Conse-quences	Treatment	Prevention
- a germ called gonococcus - germ thrives in mucous membranes - germ dies quickly when exposed to air	- often no symptoms - discharge from penis - burning feeling when urinating - mild burning feeling in the female genital area - discharge from the vagina	- infection in reproductive system - pain in internal sex organs - may cause sterility - may cause inflammation of the joints - may cause damage to vision	- seek medical attention - take prescribed antibiotics as instructed - return to doctor/nurse if symptoms persist - testing and treatment of sexual partner(s) - abstain from sexual activity until free from infection - confidential	- sexual abstinence - if sexually active, use a condom - if you think you have gonorrhea, get treatment - name sexual contacts - name sexual contact(s) - if sexually active, having only one sexual partner who is free from infection

AIDS

The AIDS lessons, developed for use with grades 7,8,9, should be taught at this point. Refer to the document ***NWT School Health Program AIDS Component.***

CHLAMYDIA FACT SHEET

Causes of Chlamydia

Chlamydia is an STD caused by an organism. It is one of the most harmful of the STDs. In some cases, it is caused by a germ called ureaplasma and in other cases, the cause is unknown.

Characteristics of Chlamydia

Men:
- A discharge from the penis
- A burning or itching around the opening of the penis.
- Rectal discharge
- Sometimes signs appear only in the mornings, then go away and later reappear
  - Many men with Chlamydia show no symptoms.

Women:
- Discharge from the vagina
- Pain, itching or burning in or around the vagina.
- Many women with Chlamydia show no symptoms

Possible Consequences of Chlamydia

If it is left untreated, Chlamydia can.
- spread throughout the entire reproductive system and may lead to abdominal pain and/or fever, nausea, headache and vomiting
- cause scarring in the reproductive systems of males and females If this scarring partially narrows the (Fallopian) tube(s), and the woman becomes pregnant, the growing fertilized egg is prevented from reaching the womb (ectopic pregnancy) The baby continues to grow in the narrowed tube causing the tube to rupture. This is a life-threatening situation.
- cause sterility in both women and men (inability to have children)
- cause eye infections or pneumonia in the newborn baby born to mothers who have Chlamydia in their birth canal.
- cause an acute inflammation of the joints which may lead to an arthritic condition

Treatment for Chlamydia

- Seek medical advice.
- Chlamydia is treated with specific antibiotics. ALL of the medication must be taken as directed.
- Return to the doctor if the symptoms persist.
- Sexual partner(s) should be tested and treated immediately.
- It is important to abstain from sex until the doctor verifies that the infection is gone.
- All diagnosis and treatment of Chlamydia is CONFIDENTIAL.

Prevention of Chlamydia

Chlamydia is most commonly found in sexually active people between the ages of fifteen and thirty years. All sexually transmitted diseases including Chlamydia may be prevented in similar ways:
- Abstain from sexual activity. The more sexual partners an individual has, the higher the risk of becoming infected with Chlamydia.
- Sexually active individuals should use a condom to reduce the risk of infection Condoms offer some protection for both partners
- A person with Chlamydia should be treated at once and sexual partner(s) should be tested and treated immediately.

GONORRHEA FACT SHEET

Causes of Gonorrhea

Gonorrhea is caused by a germ called a gonococcus which dies quickly when exposed to the air. The germ thrives well in mucous membranes that line body openings

Characteristics of Gonorrhea

Men:

- Some men have no symptoms Two to ten days after contact with an infected person, there may be a discharge of pus from the penis and/or a burning sensation when urinating.

Women:

- Some women have no symptoms There may be a mild burning sensation in the genital area and/or discharge from the vagina.

Possible Consequences of Gonorrhea

If untreated, gonorrhea may infect the internal sex organs causing pain and resulting in sterility It may spread to the joints causing painful arthritis It may also cause serious damage to sight.

Treatment for Gonorrhea

- Seek medical advice.
- Gonorrhea is treated with antibiotics. ALL of the medication must be taken as directed
- Return to the doctor if the symptoms persist.
- Sexual partner(s) should be tested and treated immediately.
- It is important to abstain from sex until the doctor verifies that the infection is gone
- All diagnosis and treatment of Gonorrhea is CONFIDENTIAL.

Prevention of Gonorrhea

All sexually transmitted diseases may be prevented in similar ways:

- Abstain from sexual activity. The more sex partners an individual has, the higher the risk of becoming infected with Gonorrhea.
- Sexually active individuals should use a condom to reduce the risk of infection Condoms offer some protection for both partners.
- A person with Gonorrhea should be treated at once and sexual partner(s) should be tested and treated immediately.

FAMILY LIFE

GRADE: 7 **LESSON: 9** **THEME: ABUSE PREVENTION**

CONCEPT: SEXUAL ASSAULT IS A CRIMINAL OFFENCE

PREPARATION: 1. Prepare a class set of Fact and Fiction worksheets (Activity Sheets FL88A and 88B).
2. Prior to the class invite a member of the RCMP to the class to discuss sexual assault .

VOCABULARY: assault, sexual assault, sexual offence, criminal, obscene, obscenity, victim, offender

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
Students will be able to: i) define sexual assault	Students: 1. Define the term 'assault'.	Background Information Page FL87 to FL91. Use a dictionary and general discussion to define the term. Have students give examples of assault. "Assault" is a threat or intentional use of force against another person. Examples include. - touching - slapping - kicking - pushing - threatening to injure

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
	2. Define the term 'sexual assault'.	'Sexual assault' is forced sexual activity **without consent.** Examples include. - kissing - fondling - sexual intercourse (rape) - incest (sexual intercourse with a close relative) - using sexual obscenities - gross indecency - exposing oneself The final decision on what constitutes sexual assault is determined by a judge in court.
ii) distinguish between fact and fiction on sexual assault	3. Complete the Fact and Fiction worksheet.	Refer to Activity Sheet FL88A. Refer to Activity Sheet FL88B for answers. Have students complete the Fact and Fiction worksheets. Discuss.
iii) describe the consequences of assault and sexual assault for the victim and the offender	4. Discuss the consequences of assault and sexual assault for the victim and the offender.	Prior to the class, invite a member of the RCMP to class to discuss the consequences. Have students prepare a list of questions which they want answered. Provide the questions to the RCMP in advance.

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
		Consequences include: **Victim** - feelings of guilt, anxiety, anger, shame, responsibility - fear of another attack - fear of being unable to cope with a sexual relationship - some physical symptoms - fear of infection and pregnancy - disturbances in sleep patterns/ nightmares - humiliation - sense of powerlessness - confused/disoriented **Offender** - imprisonment - social isolation from family, friends, community - further loss of self-esteem - loss of job - publication of name in media - feelings of guilt, shame
iv) identity behaviours that help prevent sexual assault	5. Discuss behaviours that help prevent sexual assault.	Divide the class into small groups. Have each group brainstorm different behaviours that help prevent sexual assault. Behaviours include: - walking in well-lit areas or roads - walking in pairs or groups - letting family members know where you will be when away from home - not hitchhiking or taking rides with strangers - planning to be met by family member if it is late and you are alone - saying no to situations that could lead to sexual assault - having family, friend and community supports to talk with if a potentially dangerous situation exists - trusting your own instincts Behaviours to avoid sexual assault in the form of incest include: - talking to trusted people in the community who can help (e g , teacher, nurse, priest) - not going home if the person suspects there's likely to be an assault (e g , if the offender has been drinking)

FACT AND FICTION

Decide if the statement is FACT or FICTION

Mark an X in the correct box

	FACT	FICTION
1 Sexual assaults happen only to women		
2 Having intercourse with a female 14 years or under is a criminal offence		
3 Most sexual assaults are committed by strangers to the victim		
4 If a person is sexually assaulted, there is nothing s/he can do about it		
5 A person who exposes him/herself is guilty of sexual assault		
6 Any act of sexual intercourse to which the individual does not consent is sexual assault.		
7 Sexual assault never happens in a person's own home.		
8 A person who shouts sexual obscenities at another person could be charged with sexual assaul		
9 Forcing someone to take part in sexual activity without his/her consent is against the law		
10 There are serious consequences for the victim and the offender		

FACT AND FICTION

Decide if the statement is FACT or FICTION

Mark an X in the correct box

	FACT	FICTION
1 Sexual assaults happen only to women		X
2 Having intercourse with a female 14 years or under is a criminal offence	X	
3 Most sexual assaults are committed by strangers to the victim		X
4 If a person is sexually assaulted, there is nothing s/he can do about it		X
5 A person who exposes him/herself is guilty of sexual assault	X	
6 Any act of sexual intercourse to which the individual does not consent is sexual assault	X	
7 Sexual assault never happens in a person's own home		X
8 A person who shouts sexual obscenities at another person could be charged with sexual assa	X	
9 Forcing someone to take part in sexual activity without his/her consent is against the law	X	
10 There are serious consequences for the victim and the offender	X	

FAMILY LIFE

GRADE: 7 **LESSON: 10** **THEME: LIFESTYLE**

CONCEPT: POSITIVE LIFESTYLE PRACTICES PROMOTE HEALTH

PREPARATION: 1. Prepare a class set of Towards Healthy Sexuality and Family Relationships (Activity Sheet FL89)
2. Chart paper and felt pens for several groups

VOCABULARY: **sexuality, positive behaviours**

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
Students will be able to: i) identify positive lifestyle practices that promote healthy sexuality and family relationships	Students: 1. List positive behaviours that promote healthy sexuality and family relationships.	Background Information Page. Review each lesson in the Grade 7 Family Life unit Identify with students one positive behaviour for each lesson. e. g. Lesson 1 - Families - assist in making responsible family decisions and fulfilling assigned roles/tasks. Lesson 11 - Abuse Prevention - practise behaviours that help prevent sexual assault. Then divide the class into small groups .Have each group brainstorm positive behaviours for one of the following themes.

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
		- Families - Human Development and Reproduction - Teen Decisions - Sexually Transmitted Diseases - Abuse Prevention Have groups record their responses on chart paper and present them to the class for discussion.
ii) design a personal program to promote healthy sexuality and family relationships	2. Select one behaviour that promotes healthy sexuality and family relationships.	From the brainstormed lists, have each student select one behaviour which will become part of a personal program.
	3. Design a personal program to promote healthy sexuality and family relationships.	Refer to Activity Sheet FL89 Have each student complete. - My Goal - Why I Want To Reach This Goal - What I Have To Do To Reach My Goal
	4. Practise his/her personal program for a given time period.	Refer to Activity Sheet FL89. Have students decide on a time period for their personal program and using the chart "How I Am Doing", keep a daily record of their progress during that time
iii) evaluate the effectiveness of the program	5. Describe the degree of success with his/her program.	Refer to Activity Sheet FL89. Have students evaluate how successful they were in working towards their goal and record the evaluation in the section "How Did I Do?" Successes can be shared among friends, in small groups, or as a class depending upon the goals set and whether or not students are comfortable with such sharing

TOWARDS HEALTHY SEXUALITY AND FAMILY RELATIONSHIPS

Name _____

My Goal (Specific goal that I wish to work towards)

_____

_____

_____

Why I want to reach this goal

_____

_____

_____

What I have to do to reach my goal

Things I have to do	Supports I need to help me.

How I am doing

Sun.	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.	
							Week 1
							Week 2
							Week 3
							Week 4

How did I do? (Summary of my daily comments, my successes in working towards my goal)

GRADE 7

TEACHER BACKGROUND INFORMATION

FAMILY LIFE

THE TERMINOLOGY OF THE FAMILY LIFE UNIT

Some students may have difficulty understanding or participating in the discussions because they have different words to describe the concept. Many students will know only the "common" or "slang" terminology. In the Family Life classes, students will be learning and using the medical terminology.

Medical Terminology	Common	Slang
urinating	peeing	pissing

Students may use the "common" or "slang" term initially, because they are comfortable using it, and/or do not know the medical term. Once the medical term has been taught in class, teachers should ensure that students refer to the concepts using the correct medical terminology.

TERMS RELATED TO THE MALE REPRODUCTIVE SYSTEM

sperm: the male reproductive cell, it generally lives for 1 to 3 days, males do not begin to produce sperm until puberty

scrotum: the outer sac or bag which holds the testicles

testicles: two glands located inside the scrotum, these are where sperm are produced, it is common for each testicle to be slightly different in size

vas deferens: the tube which leads from each testicle to the urethra; sperm travels along this tube from the testicle to the urethra

prostate gland: a large gland which surrounds the male urethra m front of the bladder, it secretes fluids which lubricate the sperm

urethra: a tube inside the penis which carries both urine and semen to the outside of the body; semen and urine do not travel down the urethra at the same time

Cowper's glands: these glands secrete a small amount of fluid into the urethra lust before the sperm reach this point

penis: an external body organ through which urine and sperm leave the body

ejaculation: the discharging of semen from the body through the penis

erection: the penis grows larger, becomes stiff and hard and sticks out from the body. This happens because blood flows into the loose skin of the penis. It can result from sexual stimulation (e.g., a sexual thought, seeing an attractive person, or from rubbing the penis) or spontaneously without any apparent reason. Erections are a natural occurrence which tend to happen more frequently during puberty.

wet dreams: ejaculations which occur at night as a result of a dream

masturbation: the rubbing or stroking by a person of his/her own sexual parts. Masturbation does not cause physical harm. It is normal if a person chooses to masturbate. It is also normal if a person chooses not to masturbate.

epididymus: where sperm cells are stored before travelling along the vas deferens

seminal vesicle: produces fluid which provides nourishment and lubrication for the sperm

TERMS RELATED TO THE FEMALE REPRODUCTIVE SYSTEMS

egg (ovum): the female reproductive cell, it generally lives for 2 to 3 days, females are born with eggs, eggs are stored in the ovaries, at puberty the ovaries start to release one egg a month, ovum - singular, ova – plural

vulva: the area situated between the legs which protects the openings of the vagina and the urethra, on either side of the vulva are soft folds of tissue called labia; this does not include the anus

vagina. the opening through which blood and tissue leave the body at menstruation; the opening through which the male penis enters during sexual intercourse, the open ing through which a baby is born

cervix: the neck of the uterus, opening between uterus and vagina

uterus: a muscular pear-shaped organ, where the fertilized egg grows and develops into a fetus, each month the lining of the uterus thickens to receive an egg, if the egg is not fertilized, the lining of the uterus leaves the body during menstruation

ovaries: the organs where the eggs are stored and develop, once a month, an egg matures and is released from one of the ovaries; the ovaries contain thousands of tiny, undeveloped egg sacs

Fallopian tubes: two tubes which connect the ovaries and the uterus. The released egg travels from the ovaries along the Fallopian tubes; hairs on the walls of the tubes help the egg to move along, the sperm fertilizes the egg m the Fallopian tubes

ovulation: the point in the menstrual cycle when an ovum or egg cell is released from an ovary; occurs 14 to 16 days after the first day of menstruation

MENSTRUATION

Menstruation is a natural occurrence in a female's life. However, if girls have not been prepared for it, it can be a frightening and worrying experience. It is a signal that her body is preparing itself physically to reproduce. The onset of menstruation vanes from person to person -it may begin at nine years of age or at fifteen .The average age, however, is twelve to thirteen years. It continues until menopause, usually around age forty to fifty. Once a girl starts to menstruate, it may take several years before her menstrual cycle becomes regular.

The Main Events

The length of the menstrual cycle may vary from three to six weeks. Usually every four weeks a female's body prepares itself for a possible pregnancy through the action of the female sex hormones. An egg matures in one of the ovaries and the lining of the uterus begins to thicken, preparing to receive a fertilized egg. This lining is rich in blood and will bring nutrients to the developing baby. About halfway through the menstrual cycle (day 14) the ripened egg is released from the ovary (this is called ovulation) and travels along the Fallopian tube. If the egg is fertilized by a sperm within two to three days, a baby begins to develop. It develops for nine months in the uterus. During pregnancy, menstruation does not normally occur.

If the egg is not fertilized, it dissolves. The lining of the uterus is not needed to nourish and protect a baby, and so it is shed and leaves the body through the vagina. The flow of blood and tissue is called menstruation, a menstrual period, or a monthly period.

The menstrual cycle begins on the first day of menstruation and ends the day before the next menstrual period begins. It is usually about twenty eight days A menstrual period generally lasts four or five days, but may vary from three to seven.

No one can tell exactly when a girl will begin to menstruate. Some girls experience a slight vaginal discharge several months before their first period.

Only a small amount of blood leaves the body each month. The blood flow is usually heavier at the beginning of menstruation, than near the end.

Menstrual Hygiene

The two main types of menstrual protection which are used to absorb the blood are sanitary napkins (pads) and tampons. Pads are worn externally, usually held in place on the undergarments by an adhesive strip. Tampons are inserted into the vagina. Health professionals do not recommend the use of tampons by young girls.

Toxic Shock Syndrome

Toxic Shock Syndrome has been linked with the use of tampons during menstruation. It is a serious illness which may result in death and which most often affects young women between the ages of 15 and 25.

Symptoms include:

- high fever
- diarrhea
- vomiting
- headache
- muscular pain and weakness

In a very short space of time:

- the person's blood pressure falls
- a rash appears
- skin starts to peel from the hands and feet

Preventive behaviours related to Toxic Shock Syndrome

Preventive behaviours include:

- changing tampons frequently,
- using tampons with applicators,
- washing hands before inserting the tampon,
- keeping the vulva clean,
- stop using tampons if you think you may have toxic shock syndrome,
- immediately contact the doctor or community health nurse.
- avoid using tampons it you have. or have had, toxic shock syndrome

During menstruation it is particularly important to maintain personal hygiene. When menstrual blood collects on the pad and contacts the air, bacteria grow causing an odour. Some important points to remember.

- sanitary pads should be changed at least four times daily
- females should wash the vulva regularly from front to back
- sanitary pads should be wrapped and disposed of m the garbage

Menstrual Discomfort

Most females do not experience discomfort during menstruation. However, some do experience:

- nausea
- cramps
- headaches
- a bloated feeling
- tenseness
- tiredness

These are thought to be related to hormonal action. Rest, warm baths, mild exercise and/or massaging the lower abdomen may help. If there are severe symptoms or if symptoms persist, a doctor or nurse should be consulted.

Most girls continue to participate in sports activities during menstruation.

History of Menstrual Aids

In some tribes, menstruating women still go to live in special huts apart from the rest of the community. A grass mat at their feet collects the menstrual flow. After each period the mat is burned.

Inuit women used moss wrapped in a clean, cloth rag as a sanitary pad. They would collect the moss in the summertime and store it for use in the winter. They disposed of these pads by burning them. Similarly, in many tribes of Africa, menstruating women for centuries have used "bandages" made out of grass or some kind of vegetable fibre. These bandages were burned after use.

Depending on the availability of materials, women began to use wads of cloth thick enough to absorb the menstrual fluids. These cloths required soaking, washing and drying during the time of their use..

By the turn of the 20th century packaged linen cloths, very much like diapers, were used. These were made specifically for sanitary protection, being shaped in a more comfortable style. They still needed soaking, washing and drying and still presented problems of absorbency and discomfort.

It was around 1918 that disposable sanitary pads or napkins were first introduced. Made of cotton, cellulose or a combination of both and wrapped in gauze for use with pins and belts, this type of protection has been in use ever since.

The tampon is the newest commercial form of menstrual protection, having been developed by a doctor more than forty years ago. However, the use of tampons is not a new idea. In ancient times in some parts of the world women used rolls of soft wood internally In other parts of the world women used rolls of grass and roots.

The Cultural Importance of Menstruation

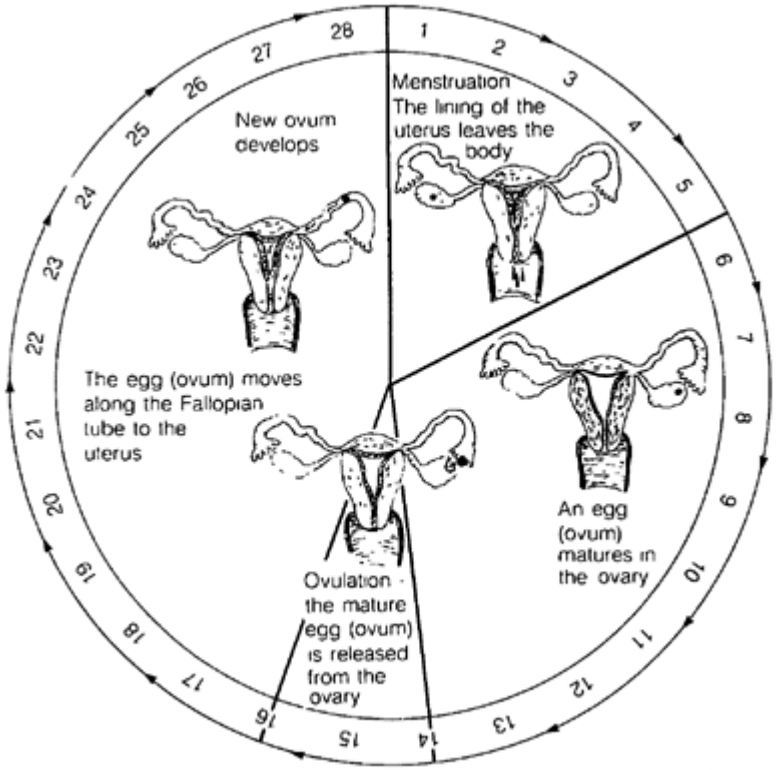
In many cultures a girl is treated differently when she has begun to menstruate. She may be treated in a more grown up way by her family and friends.

In some cultures the beginning of menstruation is designated as a time of celebration. Feasts or special ceremonies to celebrate womanhood are held. The girl is given adult clothing to wear, she is expected to do women's work and perhaps marry.

In traditional Inuit culture, a girl who had begun to menstruate was no longer spoken to as a child and was given increased responsibilities and privileges. In traditional Dene culture, a girl who had begun to menstruate had to live in a tent away from the community to practise the skills her mother had taught her. She was helped in this passage to womanhood by an elderly man, usually her grandfather, who would cook for her and serve her food. It was believed that if she did these things for herself it would increase the heaviness of the menstrual flow. After her first period had passed she was welcomed back to the community and honoured by a special feast.

In today's society many of these traditions have been lost or are simply not practised any longer. A girl's feelings about menstruating may vary depending on how much she knows about it and the accuracy of her information.

OVULATION



THE REPRODUCTIVE PROCESSES

Sex cell development: The female reproductive cell, the ovum, develops in one of the ovaries and is released once a month.
The male reproductive cell, the sperm, develops m the testicles, and is released during sexual stimulation.

The pathway of the sperm: The sperm travels from the testicles along the vas deferens to the urethra, to the outside of the body

The pathway of the ovum: The ovum travels from the ovary along the Fallopian tube to the uterus

Sexual intercourse: In order for new life to begin, the ovum has to join with a sperm .The erect penis enters the vagina Millions of sperm are deposited into the vagina. They travel into the uterus and along the Fallopian tubes.

Fertilization (Conception): When a sperm cell and an egg cell join together, fertilization takes place.

Implantation: Shortly after fertilization, the cell divides and continues to divide until 64 cells are produced. This cluster of cells attaches itself to the wall of the uterus, where it will be nourished and protected.

Gestation (Pregnancy): The time during which the fetus develops in the uterus for approximately 40 weeks. This is also called pregnancy

Birth: At the end of that time, the baby is ready to leave the uterus, through the cervix and vagina into the world.

Fetal development: The growth of the unborn baby m the uterus

SEXUAL DECISION-MAKING

There are many pressures on young people to become sexually active. These pressures may come from their peers, from the media and from society in general. Many young people who are already sexually active may not really want to be, but have been unable to resist those pressures.

Reasons why young people may become sexually involved
- pressure from boy/girl friend - desire to be part of the group - force, fear, threat - societal expectations - curiosity - to express love/caring - for pleasure - desire to appear grown-up - incest, rape
Reasons why young people may postpone sexual involvement
- moral reasons - parental expectations - fear of pregnancy or sexually transmitted diseases - either or both partners not ready for sexual involvement - fear of damage to reputation - decision to wait until commitment to relationship is made

Everyone, at different times m his/her life, has to make decisions related to sexuality. Although people share many similarities in this area, e.g., everyone wants to love and be loved, they also have different needs and values. Deciding whether or not to be sexually active is only one aspect, however. Young people who decide not to be sexually active must have the necessary assertiveness skills to allow them to say "No".

Abstinence is recommended by health professionals as the most responsible choice, from a health point of view, for young people. Early participation in sexual activity may have serious health risks and consequences - physical, emotional and social - for a young person.

Advantages of abstinence for young people
- freedom from fear of pregnancy and sexually transmitted diseases - freedom from guilt - satisfaction of being in control of one's own life - time to develop commitment to relationship
Disadvantages of abstinence for young people
- continued pressure from partner and/or group - possible termination of relationship - risk of health problems (especially mental, social)

Adolescent pregnancy

If a young girl becomes pregnant, there are health risks for both mother and child.

The School Health Program looks at adolescent pregnancy as it relates to the overall health of the parents - in particular, the mother - and the child.

Health Risks and Consequences for the Mother
- higher risk of pregnancy complications and birth difficulties e.g , premature baby, long labour - difficulties because of poor diet, poor prenatal care, incomplete physical growth of mother - medical risks such as haemorrhage, high blood pressure, anaemia, toxemia - may have to drop out of school - may have little money, may need assistance - mental and emotional health problems e g , loneliness, isolation, low selfesteem, guilt - problems about what kind of fob, if any, is available to her - pressure to marry - higher risk of divorce if married at a young age - poor housing because of little money - problems handling pregnancy, a relationship and growing up at the same time
Health Risks and Consequences for the Fetus/Child
- higher rate of infant mortality, deformities, low birth-weight, lower intellectual potential - complications related to tobacco and alcohol use e g ,fetal alcohol syndrome - less stimulation for child for growth and development - increased likelihood of childhood diseases e g , respiratory problems - increased risks of child abuse

SEXUALLY TRANSMITTED DISEASES (STDs)

Sexually transmitted diseases are diseases which are spread by sexual contact with an infected person. There are many kinds of sexually transmitted diseases. Only the more common ones are dealt with in detail in the School Health Program. However, many aspects of the more common STDs are applicable to all e g , method of transmission, and ways of preventing the spread of STDs.

CHLAMYDIA

Causes	Characteristics	Consequences	Treatment	Prevention
- germ called ureaplasma - sometimes unknown - organism	discharge from the penis - burning or itching around the opening of the penis - rectal discharge - often no symptoms - vaginal discharge - pain, itching, burning around **vagina**	-may spread through reproductive system -may give abdominal pain, fever, nausea, headache, vomiting -may cause scarring in the reproductive system may cause sterility -may create health problems m the unborn baby -may cause inflammation of the joints	- seeking medical advice - take prescribed antibiotics as instructed - return to doctor/nurse if symptoms persist - testing and treatment of sexual partner(s) - abstain from sexual activity until free from infection - confidential	- sexual abstinence - if sexually active, use a condom - if infected, get treatment - ask partner(s) to be tested and treated - if sexually active, having only one sexual partner who is free from infection

GONORRHEA

Causes	Characteristics	Consequences	Treatment	Prevention
- a germ called gonococcus - germ thrives in mucous membranes - germ dies quickly when exposed to air	- often no symptoms - discharge from penis - burning feeling when urinating - mild burning feeling in the female genital area - discharge from the vagina	- infection in reproductive system - pain in internal sex organs - may cause sterility - may cause inflammation of the joints - may cause damage to vision	- seeking medical advice - take prescribed antibiotics as instructed - return to doctor/nurse if symptoms persist - testing and treatment of sexual partner(s) - abstain from sexual activity until free from infection - confidential	- sexual abstinence - if sexually active, use a condom - if infected, get treatment - name sexual contact(s) - if sexually active, having only one sexual partner who is free from infection

CHILD ABUSE

The U S National Committee for Prevention of Child Abuse (1977) defines child abuse as:

"a non-accidental injury or pattern of injuries to a child."

Except m the case of sexual abuse by a stranger, child abuse is not usually a single act, but, rather, a pattern of behaviour.

Child abuse often occurs within a 'trust relationship i.e., the abuser has some responsibility to. or relationship with, the victim (family member, babysitter etc) or has a professional relationship with the victim such as a teacher.

What is Child Abuse?

Child abuse is a global term and takes many forms.

1 Physical Abuse

This can be defined as:

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"any non-accidental infliction of physical injury upon a child" by a caretaker.

This may be the most easily detected form of child abuse, as scars, bruises, broken bones can be seen, However, psychological scarring also occurs, and does not disappear as quickly as the bruises.

2 Child Sexual Abuse

The British Columbia Ministry of Human Resources defines child sexual abuse as:

"the sexual exploitation of a child who is not developmentally capable of understanding or resisting the contact, or a child or adolescent who may be psychologically or socially dependent upon the perpetrator."

It includes a range of behaviours, from exposing of private parts, forced participation in masturbation and fondling to full intercourse.

3 Emotional Abuse or Maltreatment

This can be defined as all acts of omission or commission which result in:

"the absence of a nurturing environment for the child."

Acts of omission include ignoring or passively rejecting the child, or withholding affection or praise. Acts of commission include constant yelling, demeaning remarks, threatening and verbally rejecting the child. This is probably the most widespread form of child abuse but the most difficult to identify or prove. Emotional abuse is inevitably present with the other three forms of abuse.

4. Neglect

This occurs when caregivers fad to provide a child with the basic necessities of life e.g., food, clothing, shelter, medical care, safety, nurturing, etc. This form of abuse is usually not intentional. It can be the result of ignorance of what is appropriate care, an inability to plan ahead, unrealistic expectations of what the child can do for himself, or the consequence of parents incapacitated through illness, injury or handicap.

The effects of child abuse are cumulative. The longer the abuse continues, the more serious it becomes, and the more serious are the child's injuries.

Indicators of Child Abuse

Signs of child abuse do not usually appear m isolation, but rather as a syndrome. It is most important to recognize that the behavioural signs are indicative of stress in a child's life and should be investigated further. However, they are not all-conclusive in indicating abuse.

Type of Abuse	Physical Indicators	Behavioural Indicators
Physical	Unexplained bruises and welts - on face, lips, or mouth - on torso, back, buttocks, or thighs - in various stages of healing - clustered or forming patterns - shaped like recognizable object (e g , belt buckle) - appearing regularly after absences, weekends, or vacation periods Unexplained burns - by cigars or cigarettes, especially on soles, palms, back, or buttocks - by immersion in hot liquid, especially on hands, feet, buttocks, or genitalia - shaped in a recognizable form (e g , electric range coils, electric iron) - by rope on arms, legs, neck, or torso Unexplained fractures - of skull, nose, or facial bones - in various stages of healing - in multiple locations Unexplained lacerations or abrasions - on mouth, lips, gums, or eyes - on external genitalia	Wary of adult contacts Apprehensive when other children cry Extreme aggressiveness or extreme withdrawal Fear of parents Fear of going home Reporting of injury by parents or others
Sexual	Difficulty in walking or sitting Torn, stained, or bloody underclothes Pain or itching in genital area Bruises or bleeding m external genitalia, vaginal, or anal areas Venereal disease symptoms, especially in pre-teens Pregnancy	Unwillingness to change clothing or to participate in physical education classes Withdrawal, fantasy, or infantile behaviour Bizarre, sophisticated, or unusual sexual behaviour or knowledge Poor peer relationships Chronic delinquency Reporting of sexual assaults

Type of Abuse	Physical Indicators	Behavioural Indicators
Emotional	Speech disorders Lag in physical development Severe allergies, asthma, or ulcers Alcohol or drug abuse	Habit disorders (e g , thumb sucking, lip biting, rocking) Antisocial or destructive conduct Psychoneurotic traits (e g , hysteria, obsessions, compulsions, phobias, hypochondria) Behaviour extremes of compliance or aggression Inappropriate adult or infantile behaviour Mental and emotional developmental lags Suicide threats or attempts
Neglect	Consistent hunger Poor hygiene Inappropriate dress Unattended physical problems or medical needs Alcohol or drug abuse	Begging for or stealing food Early arrivals at and late departures from school Constant fatigue or listlessness Chronic delinquency, especially thefts Reporting of no caretaker at home

(Adapted from The *Educator's Role* In the Prevention and Treatment of Child Abuse and Neglect Washington. D. C.: U.S. Department of Health and Human Services, 1984)

SEXUAL ASSAULT

In January 1983, a new federal law dealing with assault and sexual offences came into force.

Sexual assault is forced sexual activity without the consent of one of the people involved. Examples of sexual assault include.

- obscene phone calls
- Kissing
- fondling
- sexual intercourse
- incest
- indecent exposure
- sexual harassment (gestures, whistling, etc)
- child molestation
- gross indecency

The final decision on whether a sexual assault has been committed rests with the judge.

There are consequences for both the victim and the offender. Some possible consequences include.

Victim	Offender
- feelings of guilt, anxiety, anger - feelings of guilt, shame, responsibility - fear of another attack - fear of being unable to cope with a sexual relationship - some physical symptoms - fear of infection and pregnancy - disturbances in sleep patterns/nightmares - humiliation - sense of powerlessness - confused/disoriented	- imprisonment - social isolation from family, friends, community - further loss of self-esteem - loss of job - publication of name in media - feelings of guilt, shame

PREVENTIVE BEHAVIOURS RELATED TO SEXUAL ABUSE

Preventive behaviours include:

- walking in well-lit areas or roads
- walking in pairs or groups
- letting family members know where you will be when away from home
- not hitchhiking or taking rides with strangers
- planning to be met by family member if it is late and you are alone
- saying No to situations that may lead to sexual assault
- having family, friend and community supports to talk with if a potentially dangerous situation exists
- trusting your instincts

Behaviours to avoid sexual assault in the form of incest include:

- talking to trusted people in the community who can help (e.g., teacher, nurse, priest)
- not going home if the person suspects there's likely to be an assault (e.g., if the offender has been drinking)

DEPARTMENT OF EDUCATION GUIDELINES FOR EDUCATION PERSONNEL REPORTING SUSPECTED CHILD ABUSE

Any person employed by the Department of Education, a Board of Education, or a Divisional Board of Education in the Northwest Territories who suspects child abuse shall:

1. Immediately report orally the details of the suspected abuse to the local or regional representative of the Department of Social Services.

2. Inform the principal of the school of the report.

3. Follow-up the oral report to the local or regional representative of the Department of Social Services, as soon as possible, with a written report to the Superintendent of Child Welfare in Yellowknife.

4. Upon receiving a report from an employee, the principal shall immediately inform the Regional Superintendent of Education that a report of suspected child abuse has been made.

5. Staff shall ***not*** contact the child's family or the suspected perpetrator or anyone else to inform or further investigate the circumstances of the suspected abuse This is the responsibility of the Department of Social Services and the R.C.M.P.

6. Any information, oral or written, about child abuse cases is confidential. All written records or reports must be treated confidentially and should not be placed in the child's record or cumulative file Information necessary in the conduct of the investigation or subsequent treatment of the child or the offender must be shared with the authorized agencies.

7. The above procedures will also be followed by adult educators with regard to children who are or, in the absence of evidence to the contrary, appear to be under the age of 18 years of age. However, adult educators are not required to inform the principal of the school.

Supt. of Child Welfare
Department of Social Services
Box 1320
Yellowknife, X1A 2.L9
(403-873-7709)

GRADE 7

Nutrition

NUTRITION

GRADE: 7 LESSON: 1 THEME: FOOD CLASSIFICATION

CONCEPT: THE NWT FOOD GUIDE RECOMMENDS VARIATIONS IN THE NUMBER OF DAILY SERVINGS BASED ON AGE, SEX, BODY SIZE, ACTIVITY LEVEL AND HEALTH

PREPARATION:

1. Prepare a class set of the Food Servings Guide wheels (Activity Sheet N51 A - N51 B Teacher Answer Guide)
2. Prepare a class set of the Factors Affecting Number of Servings (Activity Sheet N52A - N52B Teacher Answer Guide)
3. Prepare a class set of the Lifecycle Nutrient Needs sheets (Activity Sheets N53A and 53B)
4. Materials for the Bulletin Board display
5. Ingredients for a lunch for the class, plus a lunch for a younger class

VOCABULARY: variations, range

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
Students will be able to: i) identify the recommended numbers of daily servings for different age groups	Students: 1. Review the recommended number of daily servings from the four food groups.	Background information: Page N76 to N79 Review Grade 6 materials on the four food groups, "extras" group, the major and leader nutrients found in each food group and their functions. Refer to the NWT Food Guide. Milk and milk substitutes: 3 - 4 servings (adolescents) Bannock, bread and cereals: 3 - 5 servings Fruit and vegetables: 4 - 5 servings Meat, fish, birds and eggs: 2 servings

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
	2. Make a list of the daily servings from the Milk and Milk Substitutes Group for different ages.	Use an experience chart as illustrated.

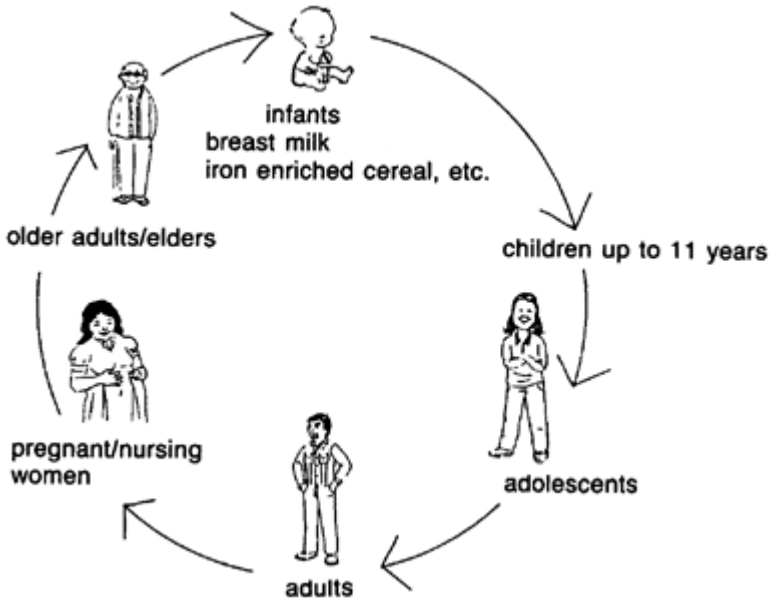
Age	Recommended Daily Servings
Children up to 11 years	2 - 3
Adolescents	3 - 4
Adults	2
Pregnant and nursing women	3 - 4
Older adults	2

	3. Make a reference guide on the recommended number of daily food servings from the four food groups by age group.	Refer to Activity Sheet N51A Refer to Activity Sheet N51 B for answers. Have students make a Food Servings Guide Wheel which includes the recommended number of daily food servings for each food group. 

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
	4. Discuss the different needs of babies from the four food groups.	Have students discuss why babies in particular have different requirements and what these requirements are.

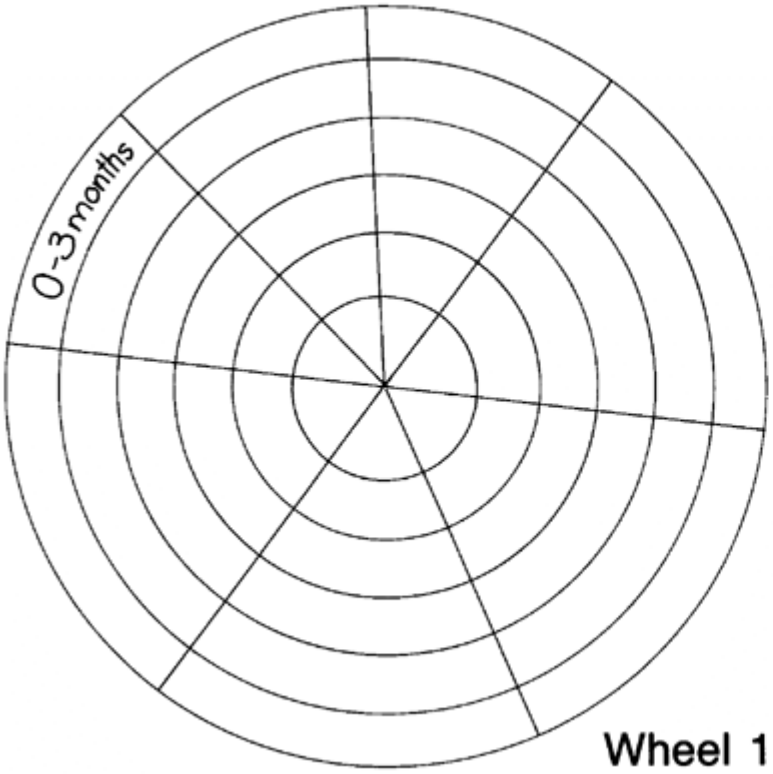
Age	Milk	Meat	Fruit and Vegetables	Bannock, Bread and Cereal
0 - 3 months	✔			
4 - 6 months	✔			✔ (infant cereal)
7 - 24 months	✔	✔	✔	✔

ii) identify factors that influence variations in numbers of servings	5. Brainstorm reasons why the NWT Food Guide suggests a range of servings for some of the food groups.	Factors that influence the number of servings include: - age - sex - weight - special physical needs, e.g., growth - activity levels
	6. Complete the Factors Affecting Numbers of Servings worksheet.	Refer to Activity Sheet N52A. Refer to Activity Sheet N52B for answers.
	7. Prepare a report on the recommended number of daily servings for different groups of people.	Refer to Activity Sheets N53A and 53B. Divide the students up into six groups. Have each group take one of the following groups of people and identify specific nutrient needs for that group. - infants (to age 2) - children (to age 11) - adolescents - adults - pregnant and nursing women - older adults/elders

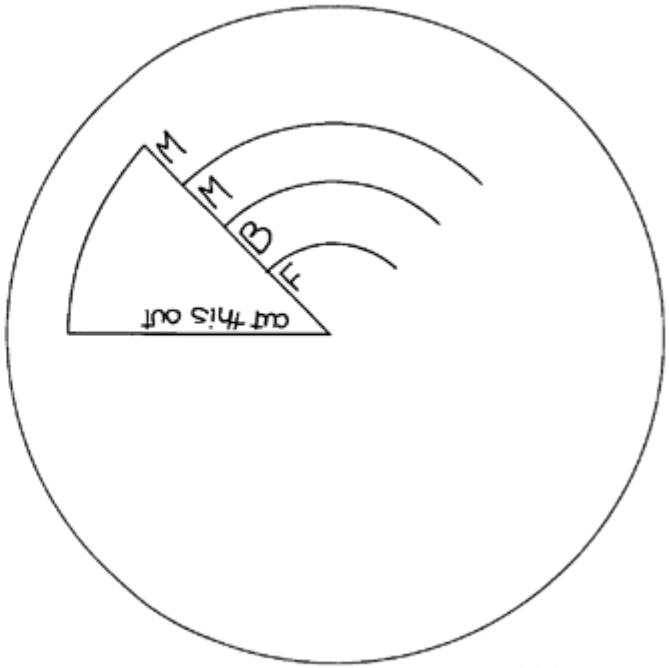
OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
		The groups should use a similar report format: - the nutrient needs and why - the foods which meet these nutrient needs - problems related to that group (e.g., adolescents - over or under weight) - eating habits Have each group report back to the whole class.
	8. Make a bulletin board display of Lifecycle Nutrient Needs.	Based on the reports prepared in Activity 7 have students make the information into a bulletin board display of Lifecycle Nutrient needs. They can also use pictures/photographs of people in each category. 

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
	9. Prepare a lunch for themselves and a lunch for children in a younger class.	Have students prepare a lunch for themselves (adolescents) and for children in a younger class. Compare numbers and sizes of servings from the four food groups.

FOOD SERVINGS GUIDE



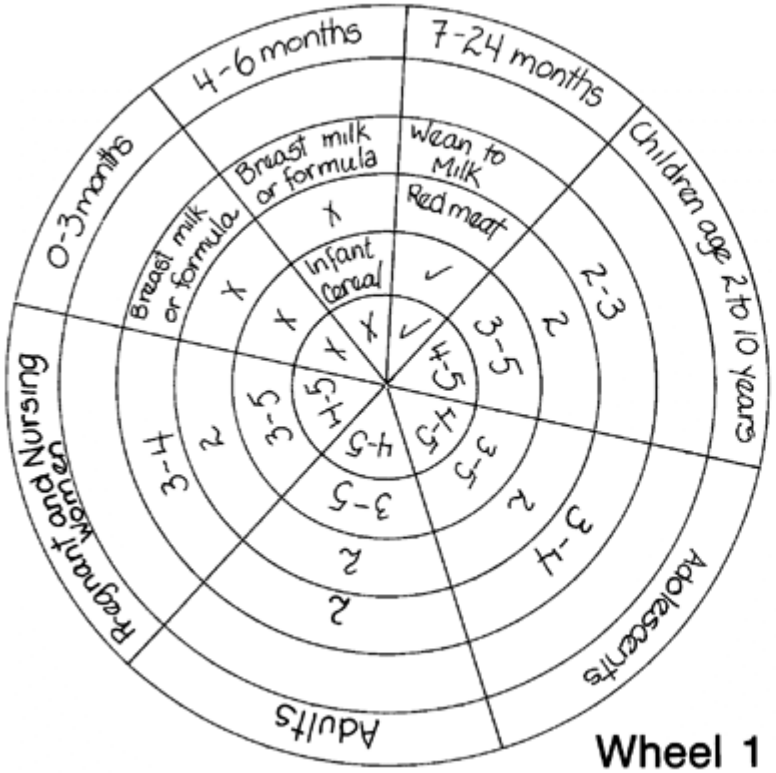
Wheel 1



Wheel 2

1.) Cut out the two wheels.
2.) On the outside ring of wheel number one, write the name of each age group. Use the small spaces for babies' ages.
3.) On wheel number two, write the names of the four food groups beside the appropriate letter.
4.) Place wheel two on top of wheel one. Attach with a split pin.
5.) Write in the recommended number of servings for each age group.

FOOD SERVINGS GUIDE
(TEACHER ANSWER GUIDE)



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4.) Place wheel two on top of wheel one. Attach with a split pin.
5.) Write in the recommended number of servings for each age group.

FACTORS AFFECTING NUMBERS OF SERVINGS

Instructions: Find the words given below and circle them.

age
sex
weight
physical needs
activity level
nursing women
nutrients
adolescents
appetite
health problem

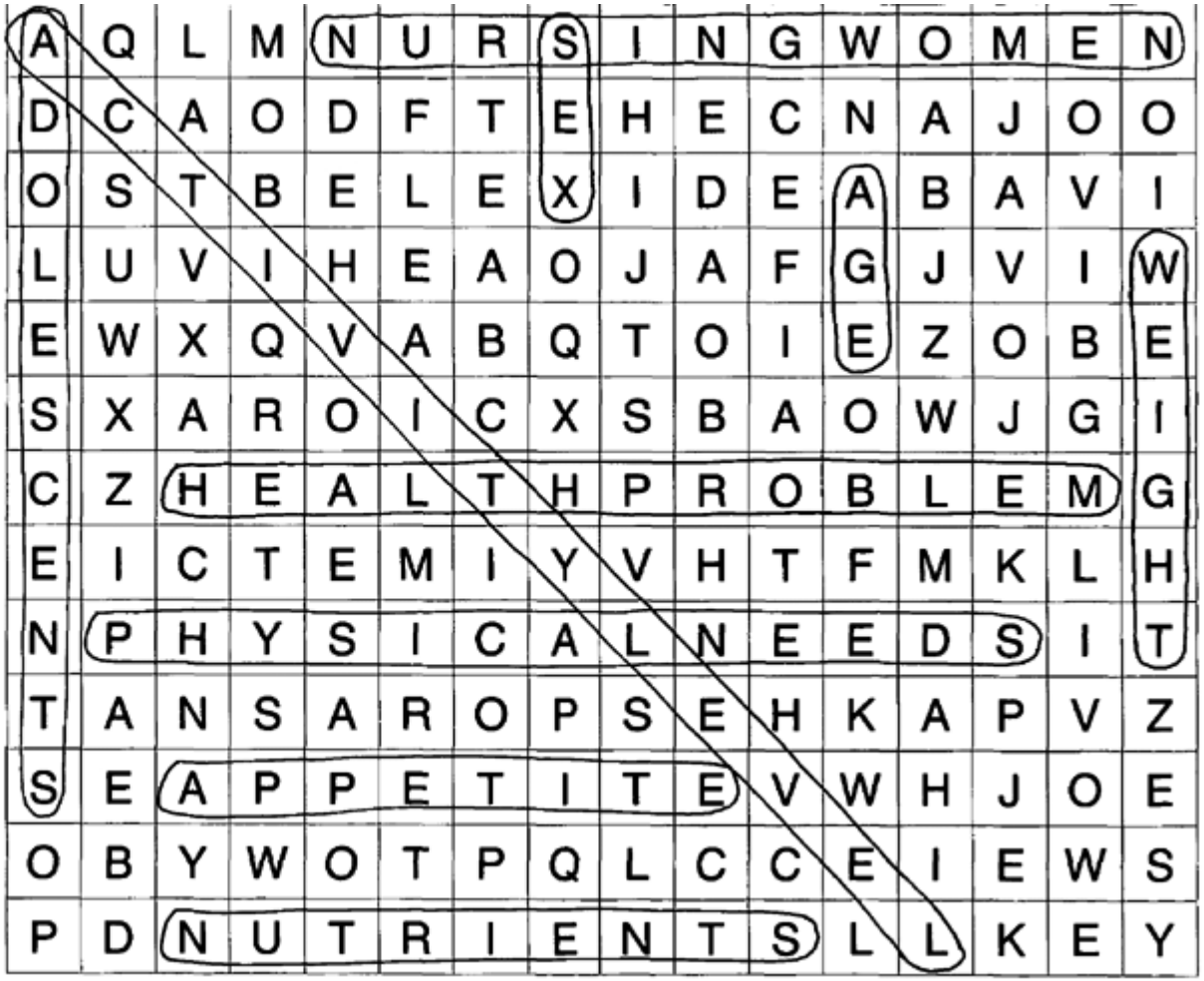
A	Q	L	M	N	U	R	S	I	N	G	W	O	M	E	N
D	C	A	O	D	F	T	E	H	E	C	N	A	J	O	O
O	S	T	B	E	L	E	X	I	D	E	A	B	A	V	I
L	U	V	I	H	E	A	O	J	A	F	G	J	V	I	W
E	W	X	Q	V	A	B	Q	T	O	I	E	Z	O	B	E
S	X	A	R	O	I	C	X	S	B	A	O	W	J	G	I
C	Z	H	E	A	L	T	H	P	R	O	B	L	E	M	G
E	I	C	T	E	M	I	Y	V	H	T	F	M	K	L	H
N	P	H	Y	S	I	C	A	L	N	E	E	D	S	I	T
T	A	N	S	A	R	O	P	S	E	H	K	A	P	V	Z
S	E	A	P	P	E	T	I	T	E	V	W	H	J	O	E
O	B	Y	W	O	T	P	Q	L	C	C	E	I	E	W	S
P	D	N	U	T	R	I	E	N	T	S	L	L	K	E	Y

FACTORS AFFECTING NUMBERS OF SERVINGS

(TEACHER ANSWER GUIDE)

Instructions: Find the words given below and circle them.

age
sex
weight
physical needs
activity level
nursing women
nutrients
adolescents
appetite
health problem



LIFECYCLE NUTRIENT NEEDS

Infants (to age 2)
- The quality and kind of food suitable for an infant change quickly during the first two years of life.
- Daily servings are not included in Canada's Food Guide for that reason.
- Mother's milk is nutritious, readily available, easily digested and contains antibodies to help combat infection especially.
- Breast milk or formula is the basic food from birth to six months.
- Iron enriched cereal can be added at four to six months.
- Iron enriched cereal, fruit and vegetables, meats, fish, eggs and milk are added at varying times from seven to 24 months.
- Commercial infant formulas are available as an alternative to breast feeding. The doctor or nurse recommends the type and amount of commercial formulas and food group items as the baby grows.
- The doctor or nurse recommends a vitamin supplement during infancy. Salt, sugar and fat should not be added to any foods.

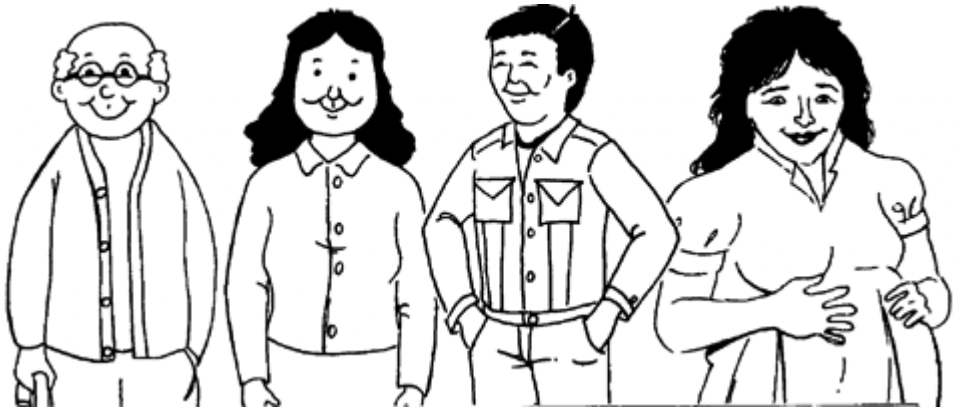
Pre-schoolers and Children (up to 11 years)
- Children need a wide variety of foods from the four food groups.
- Energy needs lessen during periods of slow growth and increase during periods of rapid growth; respect the size of the child's appetite.
- Portions of food served at meals may vary and small nutritious snacks will ensure that children get daily nutritional requirements.
- Snacks high in sugar and fat interfere with appetite and contribute to tooth decay or to being overweight.

Adolescents
- Nutrient needs are highest in this age group because of rapid growth and maturation.
- There is an increased need for calcium for skeleton growth.
    - Increased physical activity may result in extra energy needs and more snacking. Food selection is in the upper ranges of all four food groups.

LIFECYCLE NUTRIENT NEEDS

Adults

- Weight is often gained gradually over the adult years as activity level usually decreases, and the body's metabolic rate slows down two to three per cent every decade.
- Prevention of obesity is an important challenge. Careful food choices and regular physical activity are needed
- Nutrient needs are unchanged but choosing foods that contain a high proportion of nutrients compared to energy (calorie) content is important.
- Entertainment and more relaxation time after children leave home may contribute to over eating, alcohol consumption and weight gain.
- Prevention of obesity and related health problems such as diabetes is important.
-



Pregnant and Nursing Women

- Rapid growth of the fetus and maternal tissues during pregnancy requires increased intakes of many nutrients. Daily milk production requires the same.
- Calcium, protein and Vitamin D needs increase.
- Energy (calorie) needs increase.
- Vitamin B, iron and carbohydrate needs increase.
- Fibre needs increase to reduce constipation.
- Small frequent meals and nutritious snacks reduce nausea and heartburn.
- A variety of foods rich in Vitamin A and C are needed.

Adapted from *Canada's Food Guide Handbook* (revised), Minister of Supply and Services, Health and Welfare Canada, 1987.

Older Adults/Elders

- Food practices may change as health problems are experienced, e.g., disability, lack of energy, bone fragility, constipation, depression and loneliness, dental problems.
- Reduced income, changes in living accommodation, lack of physical activity and rising food costs may affect food practices.
- Nutrient needs are not changed although energy (calorie) requirements are less.
- Wise selection of foods that have higher nutrient density without being high in energy (calorie) content is important.
- Rising food costs and dental problems may reduce selection of fruits and vegetables and lead to inadequate intake of Vitamins A and C.
- Fruits and vegetables should be carefully prepared and or cooked to retain nutrients.
- Older women are particularly affected by osteoporosis. Calcium rich foods, such as milk and milk substitutes, are to be continued throughout life.
- Positive social environments enhance mealtime enjoyment and nutritional adequacy of diets.

NUTRITION

GRADE: 7 LESSON: 2 THEME: FOOD SELECTION

CONCEPT: FAMILY NEEDS AND PREFERENCES INFLUENCE THE PLANNING AND PREPARATION OF NUTRITIOUS MEALS

PREPARATION:
1. Prepare a class set of the Menu Planning worksheet (Activity Sheet N54)
2. Prepare a class set of the Which Foods Do Our Elders Prefer? survey (Activity Sheet N55)
3. Ingredients for a meal for elders in the community

VOCABULARY: factor, influence

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
Students will be able to: i) identify some criteria to use in menu planning for people of different ages	Students: 1. List some criteria to use in menu planning for people of different ages.	Background information: Page N76 to N79 Different factors affect what people eat, e.g., an older person may have few, if any teeth and may need soft, boiled or stewed food. Brainstorm factors and how they influence food choice or preparation for different age groups. (Refer students to the reports and bulletin boards from Lesson 1.)

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
		Record student responses on an experience chart as illustrated.

Age group	Factor	Influence on food choice or preparation
elderly	- few or no teeth - live alone - budget	- soft, boiled, stewed food - small amounts - buy cheaper foods

ii) design a variety of daily menus that reflect the needs of different family members	2. Prepare a daily menu for different groups of people.	Refer to Activity Sheet N54. Divide students into the following groups: - infant (1 year) - children - adolescent - adult - pregnant woman - elder Have each group take one age group. Using the shopping list on the activity sheet, design a daily menu of three main meals and snacks that reflect the needs of that group. Students should identify how the food items will be prepared, the recommended serving sizes and the number of servings from each food group, e.g., apple sauce - 1/2 cup - one serving Fruit and Vegetables. Discuss as a class.
	3. Complete the "Which Foods Do Our Elders Prefer?" survey.	Refer to Activity Sheet N55. Have students interview elders in their family/community to obtain this information. Discuss the results as a class.
	4. Discuss the importance of proper infant nutrition.	Prior to the class, invite the community health nurse to class to discuss proper infant feeding or visit the nursing station to attend a pre- or post-natal class on infant feeding.

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
	5. Prepare and share in a meal for elders in the community.	Based on the lifecycle nutrient needs and the factors that influence food choice and preparation, as well as the information from the survey, have students prepare a meal for elders in the community. Students should share in the meal and discuss the meal with the elders.

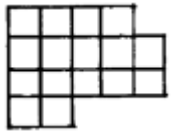
MENU PLANNING

- Given the list below design a daily menu of three meals and snacks considering the needs of a family member of a specific age group.
- The daily intake should reflect the recommended daily number of servings for each food group, serving size, and food form.
- Check the Food Guide boxes below when your menus are completed.

juice	cereal	turnips	nuts	apples
oatmeal cereal	popcorn	green beans	stew	banana
toast	soup	milk dessert	carrots	tea
peanut butter	meat (caribou) or fish	cookies	stewed tomatoes	milk
dried meat/fish	potatoes	coffee	bannock	cocoa
pilot biscuits				

Morning Meal	Noon Meal	Evening Meal	Snacks

MILK AND MILK SUBSTITUTES
BANNOCK, BREADS AND CEREALS
FRUITS AND VEGETABLES
MEAT, FISH, BIRDS AND EGGS



List any food items which do not belong to any food group.

_____

WHICH FOODS DO OUR ELDERS PREFER?

Brainstorm questions which they can ask elders about their food needs and preferences. (A few are included below as suggestions). Use the question sheet to help plan nutritious food for elders. (You may have to be prepared to ask the questions in a native language).

What foods do you like best? _____

_____

Where do you get most of your food (hunting, store, etc.)? _____

_____

Are there foods that you would like to eat but can't? _____

_____

What are they and what problems do you have with them? _____

_____

Are store foods packaged in convenient sizes for you? Comment. _____

_____

What kind of problems do you have preparing foods? _____

_____

Do you like your food to be at a certain temperature before you eat? Hot, cold, warm. Explain. _____

_____

When do you eat your food — regularly, when you're hungry, etc.? _____

_____

NUTRITION

GRADE: 7 LESSON: 3 THEME: FOOD CONSUMERISM

CONCEPT: MANY FACTORS INFLUENCE CONSUMER FOOD DECISIONS

PREPARATION:
1. Magazine food advertisements
2. Prepare overhead transparencies of Activity Sheets N56A and 56B (N56C - Teacher Resource Sheet)
3. Prepare a class set of "A Critical Look at Advertising" (Activity Sheet N57A)
4. A copy of the Clues sheet to read to the class (Activity Sheet N57B)

VOCABULARY: factors, influence, techniques

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
Students will be able to:	Students:	Background information: Page N71 to N72 Parts of this lesson relate to the Alcohol and Other Drugs Unit, Grade 8, Lesson 8.
i) explain how advertising affects food choices	1. List different types of advertising techniques that influence consumer food choices.	Refer to Activity Sheets N56A, B, C. Have students list different types of advertising techniques. Use the overhead transparencies of Common Techniques used by Advertisers as a resource.

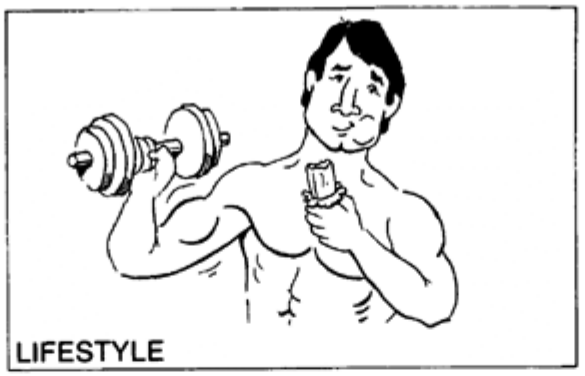
OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
	2. Examine some magazine ads to determine the type of advertising used to influence consumers' choices.	Have a number of familiar magazine food advertisements that might appeal to adolescents. Discuss the different kinds of advertising used to influence people's choices (especially adolescents).
	3. Complete the "A Critical Look at Advertising" worksheet.	Refer to Activity Sheet N57A.
	4. Design an advertisement for a nutritious food item.	Encourage students to design an ad for their favourite nutritious food. Elements of an advertisement include: - words - catchy and/or descriptive words - symbols - objects used in ads that typify desirable qualities or abstract ideas, e.g., birds - freedom - colours - colours suggest desirable objects, e.g., gold - product presentation - products can be presented boldly or "soft sell". The ad can be for print or for TV (students can perform the TV ad). Have other students examine the ads to determine what techniques have been used.
ii) identify various factors that influence food choices of consumers	6. Brainstorm various other factors that influence consumer food choices.	Refer to Activity Sheet N57B. Advertising is one factor that influences consumer food choices. Others include: - price - demands of family members - food budget - food preferences - availability (seasons of year) - specific health problems (i.e., diabetic, dental health problems) - consumer awareness of nutritional need of self and family, and nutritional knowledge of foods - ease of preparation - eating patterns in a family - who does the shopping and whether children go along with them

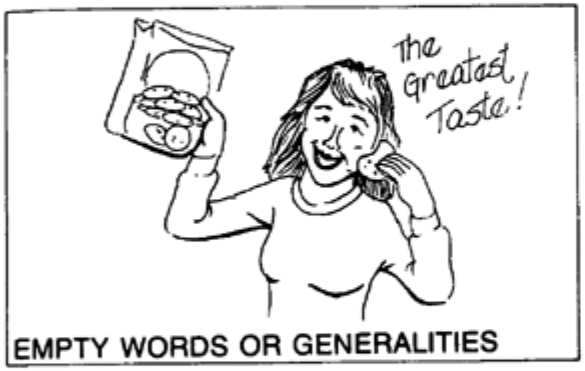
OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
	7. List five food choices and give reasons for these choices.	Have students list five foods which they would choose. Explain what factors would influence their food choices.

N56A

COMMON TECHNIQUES USED BY ADVERTISERS

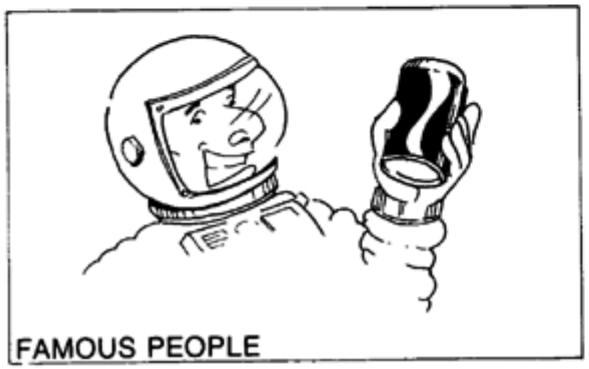
BANDWAGON

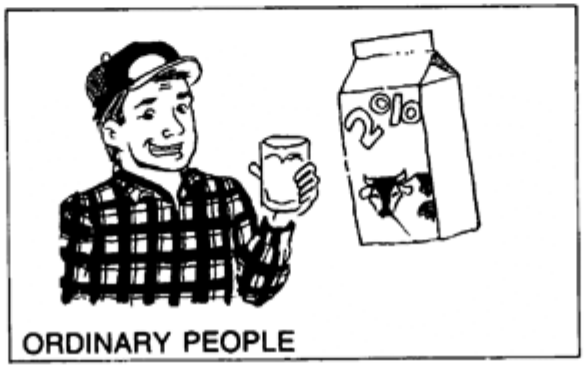

LIFESTYLE



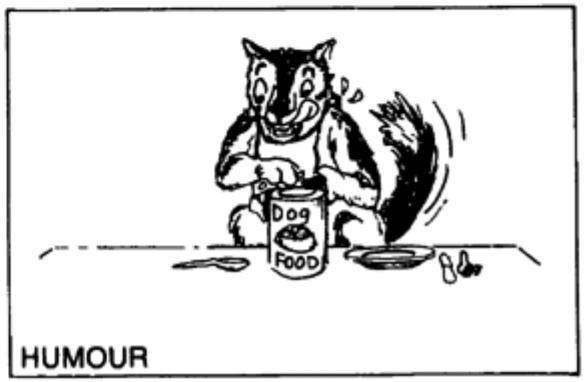
EMPTY WORDS OR GENERALITIES

NUMBERS/COMPARISONS


FAMOUS PEOPLE



ORDINARY PEOPLE



HUMOUR

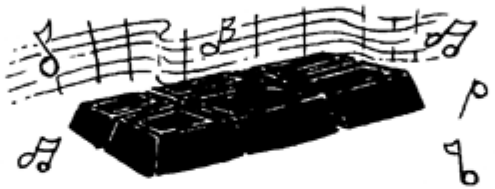
COMMON TECHNIQUES USED BY ADVERTISERS

PATRIOTISM/TRADITION

SNOB APPEAL

NEW AND IMPROVED!

PROGRESS



IT'S GREAT IT'S GREAT
NO OTHER BAR WILL RATE

SONGS/JINGLES/SLOGANS

FREE GIFT!

FREE GIFT!

REWARDS

WE'RE #2 SO WE TRY HARDER

UNDERDOG

SENSORY

TEACHER'S RESOURCE SHEET FOR "COMMON TECHNIQUES USED BY ADVERTISERS"

1. BANDWAGON/JOIN THE CROWD This technique gives the impression that almost everyone is using this product. It appeals to people's desire to belong or be part of a crowd. e.g., "Millions of people use " "Beat the rush. . . "

2 EMPTY WORDS OR GENERALITIES This technique uses exaggerated expressions to describe the product. Usually there is no factual evidence to support the claims. e.g., "The greatest taste " "Superb . "

3. FAMOUS PEOPLE Well-known people such as TV stars, sport stars etc. are paid to promote the product. The implication is that, if they use it, it must be good. The product is not necessarily connected to their work. e.g., Bill Cosby and Coke Wayne Gretzky promoting 7-Up and Pro-Stars

4. HUMOUR
   Cartoons and ridiculous situations are used to make people laugh. People will remember it longer if it is funny.
   e.g., Ronald McDonald

5. LIFESTYLE Highly prized objects or desirable situations are shown along with the product to make it appealing. The advertisement suggests that by using the product you will be as happy, rich, popular etc as the people in the advertisement. e.g., Alcohol advertisements which suggest you will find romance if you use that brand

6. NUMBERS/COMPARISONS Use statistics, graphs etc. to prove it is better than a similar product. The problem is it does not usually say what tests etc. e.g., "Four out of five people recommend . . " "Just taste the difference. . . "

7. ORDINARY PEOPLE
   Ordinary people like you or I are paid to promote the product. It appeals to our desire to be like everyone else. But remember, these people are paid to do this. e.g., Mother of young children talking about laundry detergent.

8. PATRIOTISM/TRADITION
   This technique implies that using the product will make you a better citizen or the fact that it has been used for many years means it must be good. e.g., "Canadian made" "In business for 127 years. ."

9. PROGRESS
   Ingredients/packaging may be changed to make the product appear new and different. e.g., "New, improved. . . " "Bigger, better . . "

10. REWARDS
    Coupons, free offers, gimmicks are used to appeal to people. Eventually, we have to pay for these "free" gifts through prices.
    e.g., Free gifts in cereal packages.

11. SENSORY
    Beautiful pictures or pleasing sounds are used to help people imagine that they can smell, hear, see, feel, taste the product.
    e.g., "Light, refreshing taste. . ." "Clean, crisp taste . . . "

12. SNOB APPEAL
    This technique implies that only first class people use the product. It appeals to people's desire for power and prestige.
    e.g., "All the best people use it. . "

13. SONGS/JINGLES/SLOGANS
    People are encouraged to remember products through the use of catchy tunes, or poems that are easy to remember.
    e.g., "You deserve a break today. . "

14. UNDERDOG
    This technique helps to make people sympathize with the product. It suggests that, with your help, it can become number one.
    e.g., "We're number two, so we try harder."

A CRITICAL LOOK AT ADVERTISING

Choose five advertisements (either magazine or TV). Complete the information for each advertisement.

1. Name of food or drink: _____
   Slogan: _____
   Message: _____
   Type of advertising technique: _____

2. Name of food or drink: _____
   Slogan: _____
   Message: _____
   Type of advertising technique: _____

3. Name of food or drink: _____
   Slogan: _____
   Message: _____
   Type of advertising technique: _____

4. Name of food or drink: _____
   Slogan: _____
   Message: _____
   Type of advertising technique: _____

5. Name of food or drink: _____
   Slogan: _____
   Message: _____
   Type of advertising technique:_____

Which advertisements made you want to buy the food items?

_____

Which advertisements promoted a nutritious food item?

_____

What type of food/drinks were most often advertised?

_____

CLUES
OTHER FACTORS THAT INFLUENCE FOOD CHOICES

Read each clue to the students. Have them guess which factor is influencing their choice.

1.) I'd like to buy lobster. It costs $50 kg. (COST)

2.) I'd like to buy peaches. It's January. (AVAILABILITY)

3.) I'm diabetic. (SPECIFIC HEALTH PROBLEMS)

4.) I'd like to prepare a seven course dinner. I have one hour. (EASE OF PREPARATION)

5.) I'm going to eat a hamburger. It's my favourite food. (FOOD PREFERENCES)

6.) My mother makes me eat cheese. I hate cheese. (NUTRITIONAL AWARENESS)

7.) Every week my grandmother comes to visit. She always makes bannock (or muffins) and tea (or juice) for us. (EATING PATTERNS, CUSTOMS, ETC.)

8.) I'm being very careful to eat properly. It's part of my training for the Arctic Winter Games. (NUTRITIONAL AWARENESS)

9.) I like sugar frosted cereal, but my mother always buys plain cereal. (WHO DOES THE SHOPPING, NUTRITIONAL AWARENESS)

NUTRITION

GRADE: 7 LESSON: 4 THEME: FOOD CONSUMERISM

CONCEPT: FOOD ADDITIVES ARE CHEMICALS THAT ARE PUT IN FOOD FOR A VARIETY OF REASONS

PREPARATION:
1. Examples of different types of food additives (see Activity 2)
2. A number of labels from foods such as cereals, juices, weiners, milk, etc.
3. Materials for experiments

VOCABULARY: food additive, enriched, fortified, texture, emulsify

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
Students will be able to: i) describe what is meant by a food additive	Students: 1. Describe what is meant by the term "food additive".	Background information: Page N75 Provide students with a first hand example. of a food additive. Have students make chocolate flavoured milk from milk and a powdered chocolate milk flavouring. Refrigerate and allow the chocolate milk to stand (without restirring) for several hours. While students are preparing their chocolate milk, pour a glass of commercial chocolate flavoured partly skimmed milk. Ensure that students see you do this. Refrigerate and allow the milk to stand, without stirring for several hours.

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
		Before drinking their milk, students will have to stir it again. The commercial product however will not need stirring. It contains a food additive called Carrageenan which prevents the chocolate from separating from the milk and settling to the bottom. Use a dictionary and general discussion to define food additives. Food additives are chemicals added to foods which affect the characteristics of the food (i.e., change it somehow). Food additives serve one or more purposes: - they maintain nutritional value of food (e.g., adding vitamins) - they keep food fresh long (e.g., bread) - they make food look better (e.g., colour) - they aid food processing (e.g., carrageenan in chocolate flavoured milk)
	2. Describe the difference between the chemicals in food additives and the chemicals in food.	Food is made up of chemicals. We have come to know them by a common name. For example: Water - Hydrogen Oxide (H20) Salt - Sodium Chloride (NaCI) Vinegar - Diluted Acetic Acid White sugar - Sucrose Food additives are also chemicals but they generally have no common name. Names are unfamiliar, long, and often difficult to pronounce, e.g., calcium propionate
ii) list some food additives and their function	3. Conduct an experiment to demonstrate the function of the food additive ascorbic acid.	**Materials:** knife, glasses, dishes, asorbic acid*, water, pieces of fresh fruit (apple, banana, pear, peach) *Obtain ascorbic acid (or Vitamin C) from nursing station or store. **Procedure:** Prepare an ascorbic acid solution by grinding ascorbic acid pills to a powder and dissolving in water. Cut two pieces of each fruit.

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
	4. Conduct an experiment to demonstrate the function of the food additive calcium propionate.	Dip one piece in the ascorbic acid solution; dip the other piece in water. Remove and place on dishes being careful to identify which fruit was dipped in each liquid. Allow fruit to stand for one hour at room temperature. Observe the samples and record observations. Abscorbic acid preserves the colour of the food (by preventing oxidation). **Materials:** large bowl, measuring cups and spoons, wooden spoon, two pyrex loaf pans, oven **Recipe: One Bowl, No Knead Bread** 1 tbsp. Yeast — 1 tsp. salt 2 cups lukewarm water — 4 cups flour Dissolve yeast in one cup lukewarm water. Add flour, salt and just enough of the second cup of water to stir into a soft, sticky dough. Cover, let rise in a warm place until double in bulk (about 1 1/2 hours). Punch dough down vigorously and divide into two loaves. Shape dough into loaves and place in well buttered loaf pans. Let rise again until double. Place in a cold oven. Set at 3500. Bake 30 - 40 minutes. **Procedure:** Make "One Bowl, No Knead Bread" or use a recipe of your own. Cool bread after baking and store in a closed plastic bag. Purchase a loaf of bread containing calcium propionate. On day one, have students sample both breads. Observe freshness of each. Store both breads tightly wrapped for five days and sample again. Observe freshness. Repeat again if necessary. The store bought bread contains calcium propionate (allow students to read this on the label). This food additive preserves the freshness of the bread longer than the bread made without the additive.

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
	5. Examine food products which do not have colour as an additive.	Examine various "batches" of baby foods'. The colour between jars of the same food (e.g., pears) varies because the manufacturer has not added colour to ensure that they are all exactly the same (as is often done with adult foods). ''On a single trip to the store all jars may look the same, but over time food from different batches will reveal slight colour differences.
	6. Examine the labels of food products and record food additives and their functions.	Provide food labels/packages. Develop an experience chart as shown.

Food	Additive	Function
Diet Pepsi	Aspartame	- to sweeten food without calories or food value
Nutriwhip	Sodium Stearoyl - 2-Lactylate	- a whipping agent
Rediwhip	Nitrogen or Nitrous Oxide	- to propel the food from the can in a whipped state
Marshmallow or Dried Coconut	Sorbitol	- to prevent the food from drying out
Cheese	Rennet	- to curdle milk in the making of cheese
Bread	Calcium Propionate	- to preserve freshness
Chocolate Flavoured Milk	Carrageenan	- to prevent chocolate from separating from milk

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
iii) explain the advantages and disadvantages of food additives	7. List four reasons why food additives are used, the names of some of these additives, the kind of food they are added to and the result of using the food additive.	Develop an experience chart with students.

Purpose	Examples		
	Additive	Food	Result
Preserve food	ascorbic acid sorbitol	fruits/vegetables marshmallows	Foods stay fresh longer Less wastage
Make food more attractive	carotene (colour) calcium silicate (anticaking agent)	butter free running salt/ baking powder	Food colour, texture is consistent from container to container
Maintain nutritional quality	BHA (butylated hydroxyanisole)	Vitamin A	Stability of vitamin is enhanced
Aid in food processing	calcium chloride lecithin	canned vegetables mayonnaise	Consistent composition and quality from container to container

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
	8. Explain the advantages and disadvantages of food additives.	Have students brainstorm the advantages and disadvantages of using additives. Record responses on an experience chart.

Advantages	Disadvantages
- wider range of food available	- not all food additives may be necessary
- more convenience foods available	- some additives may be harmful to health
- foods can be stored longer	- some people may be allergic to certain additives e.g., red colouring, sulphites

	9. Explain why it is important to be knowledgeable about food additives.	There is concern that some food additives may be harmful to health. It is important to be able to read labels for additives and to select foods which are low in food additives and high in nutritional value e.g., whole wheat bread as opposed to white "enriched" bread.

NUTRITION

GRADE: 7 LESSON: 5 THEME: FOOD APPRECIATION

CONCEPT: A WILLINGNESS TO EXPERIENCE FOODS WITH FEW ADDITIVES PROMOTES FOOD APPRECIATION AND HEALTH

PREPARATION: 1. Ingredients for a number of different meals with few additives

VOCABULARY:

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
Students will be able to: i) explain and prepare a meal based on the NWT Food Guide using food items with few additives	Students: 1. Plan and prepare a meal which is based on the daily food servings in the NWT Food Guide which uses as few additives as possible.	Background information: Page N73 to N75 Divide students into several small groups. Have each group prepare one of the following meals: - a meal using mainly country foods - an evening meal using mainly store bought foods - a noon meal using- a mixture of country foods and store bought foods - a breakfast using store bought foods - some nutritious snacks using country food

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
		Meals should consist of food items which have as few additives as possible. i.e., fresh, frozen. This means students have to discuss which foods contain few additives and compare foods.
ii) demonstrate a willingness to experience meals with few additives	2. Participate in a food tasting party.	Have students sample the various meals.
	3. Describe the meals.	Have students write a report about the meal they prepared. The report should - list the food used - explain why that food was chosen - explain how the food was prepared - describe the meal (textures, taste, appearance, etc.)
	4. List some of the foods which would not be available without food additives.	Have students list some of the foods which would not be available if there were not food additives.
	5. Explain why it is important to choose foods which are low in additives.	Refer to previous lesson.

GRADE 7

TEACHER BACKGROUND INFORMATION

NUTRITION

FOOD

Food is life. People, animals and plants need food to grow and remain healthy. The substances in food that help people grow and stay healthy are called nutrients.

NUTRIENTS

We need over 50 nutrients for good health. These nutrients have their own jobs to do, but often depend on each other. Because foods are different they give us different nutrients. No one food can provide all the nutrients we need. This means we must eat a variety of foods every day.

From food we also get energy to carry out daily activities. The energy comes from fats, carbohydrates and protein. If food gives more energy than needed, the extra energy is stored as fat.

If not enough energy comes from food, then the body loses weight. So, food energy must be balanced with activity to control body weight.

Although there are more than 50 nutrients essential for health and growth, there are only six major groups of nutrients:

Nutrient:	**Function:**
1. Protein	builds and repairs body tissue, e.g., muscles, skin
2. Fat	insulates and protects supplies energy carries vitamins A, D, E and K
3. Carbohydrates	important source of energy
4. Vitamins	Vitamin A: good night vision, healthy skin Vitamin C: healthy gums, teeth & blood vessels fights infection B vitamins: help the body use energy (Riboflavin) (Thiamin) (Niacin)
5. Minerals	Calcium: strong bones & teeth Iron: good blood
6. Water	regulates body functions

What Foods Do We Eat To Get All These Nutrients?

Traditionally, people in the North ate a healthy diet. The hunting and fishing lifestyle was active and healthy. There were times of little food, but generally people were able to feed themselves well. People wasted very little of their food sources. For example, they would eat all of an animal they killed; the eyes, brains, lips, stomach contents, etc. That way they were able to get all the nutrients they needed. Today, lifestyle and food sources in the North have changed. Both store and country foods are needed for good health and nutrition. The stores have many nutritious foods, but also some that aren't so nutritious. People need to choose foods carefully for best nutrition and value for their money.

Here's a list of foods, from the country and the store, that will give people the nutrients that they need everyday.

Nutrient	**Country Food Source**	**Store Food Source**
Protein	Wild game (all parts of the animal),wild birds, wild bird eggs, animal blood, fish, fish eggs, organ meats (liver, kidney, heart)	Beef, pork, chicken, turkey, organ meats, fish, dried beans and peas, cheese, eggs, nuts/seeds, peanut butter
Carbohydrate	Bannock, wild berries and greens, seaweed, animal stomach contents	Bread, whole grain cereals, enriched pasta (macaroni noodles, etc.), rice, dried beans and peas, macaroni dinner, crackers, pilot biscuits
Fat	Wild birds, wild game fat, muktuk, animal intestines	Beef, pork, luncheon meats, bologna, sausages, bacon, nuts/seeds, wieners, lard, butter, margarine
Calcium	Animal stomach contents, fish heads and bones, seaweed/kelp, wild dark green vegetables, bones, wild milk	Milk, cheese, yogurt, sunflower seeds, broccoli, dried beans/peas, canned fish with bones ((salmon, sardines)
Iron	Game, wild birds, organ meats, seaweed, animal blood, wild greens	Organ meats, red meats, pumpkin seeds, green leafy vegetables, enriched cereal products, enriched pasta (macaroni, noodles, etc.)
Vitamin C	Wild greens, wild berries, seaweed	Potatoes, cabbage, broccoli, turnip, canned tomatoes, alfalfa and bean sprouts, oranges, orange and grapefruit juice, vitaminized apple juice
Vitamin A	Seal, wild birds, muktuk, animal stomach contents, seaweed, animal and fish liver, wild greens and berries	Broccoli, spinach, milk, butter, liver, carrots, squash
Vitamin D	Fish liver oils	Vitamin D fortified milk
Thiamin	Seal, wild birds, organ meats, muktuk, seaweed, bannock, wild greens	Dried beans/peas, pork, organ meats, nuts/seeds, enriched bread/cereals, enriched pasta (macaroni, noodles, etc.)
Riboflavin	Game, wild birds, stomach contents, organ meats, wild bird, eggs, seaweed, bannock	Milk products, organ meats, enriched breads, cereals, enriched pasta (macaroni, noodles, etc.)

Nutrient	Country Food Source	Store Food Source
Niacin	Animal stomach contents, seaweed, bannock, organ meats, wild game, wild birds	Organ meats, enriched breads and cereals, enriched breads and cereals, enriched pasta (macaroni, noodles, etc.)

As shown in the above list, some foods provide more than one nutrient Example Wild game provides protein, fat, iron, vitamin A, thiamin and riboflavin. Also, some foods are the main source of more than one nutrient. Example: fortified milk is a main source of calcium, and it is also a main source of Vitamin D.

The Food Guide (Canada's Food Guide or the N.W.T. Food Guide), puts food together into four food groups, based on the leader nutrients they provide. By selecting foods from EACH group daily we can be sure of getting all the nutrients we need.

Here's a summary of what each group provides us with:

Milk and milk substitutes group (includes soft bones)	Calcium, riboflavin, vitamins A and D, protein, fat, carbohydrate
Meat, fish, birds and eggs Group	Protein, iron, fat, vitamin A, thiamin, riboflavin, niacin
Bannock, bread and cereal group	Carbohydrate, thiamin, riboflavin, niacin, iron, fibre, protein
Fruit and vegetables group (includes intestines and stomach contents)	Vitamins A and C, carbohydrate, fibre, iron.

The food groups are colour coded to help people plan a healthy diet

Blue	Milk and milk substitutes
Red	Meat, fish, bird, eggs and all edible parts
Green	Fruit and vegetables
Orange	Bannock, bread and cereal

This allows people to quickly identify a food with its food group, e.g., "Milk belongs to the blue group."

THE FOUR FOOD GROUPS

The following foods belong to the four food groups of the N.W.T. Food Guide. Each food belongs to a particular food group because it is a good source of the group's leader nutrient(s). Foods marked with an asterisk are illustrated in the Guide.

Milk and Milk Substitutes

almonds (3/a cup)
breast milk
broccoli
(2 med. stalks)
canned fish with
bones (salmon)
cheese *
natural *
processed *
cottage cheese
cream soup
custard
fish bones
& head *
ice cream
milk *
evaporated *
homogenized
powdered *
2% UHT *
milk pudding
sardines
seaweed *
soft animal
bones *
yogurt *

Meat, Fish, Bird, Eggs and all edible parts

baked beans *
bear
beef
canned fish
caribou *
chicken *
dried beans
& peas
dried meat/fish *
duck *
fish
fish eggs
hamburger
heart
kidney
liver
moose
muskox
muskrat *
nuts
peanut butter
porcupine
pork/ham
ptarmigan
rabbit *
seal *
tongue
turkey
walrus
whale

Fruit and Vegetables

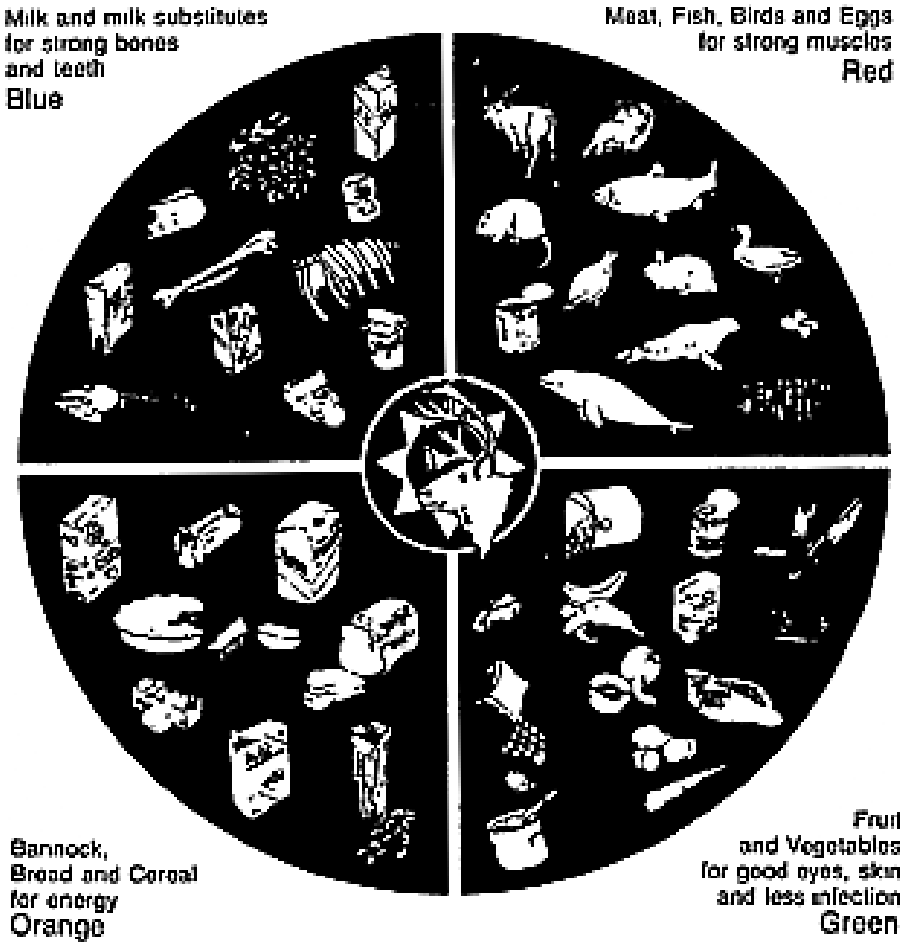
animal fat *
animal stomach
& intestine
contents
bananas *
berries *
broccoli
brussel sprouts
cabbage
carrots *
cauliflower
cherries
dandelion greens
dried fruit
fiddlehead greens
fireweed
oranges *
peaches
pears
plums
potatoes *
tomatoes
turnip
unsweetened fruit
juice *
vegetables
canned *
frozen *
wild greens *
wild rhubarb
willow buds

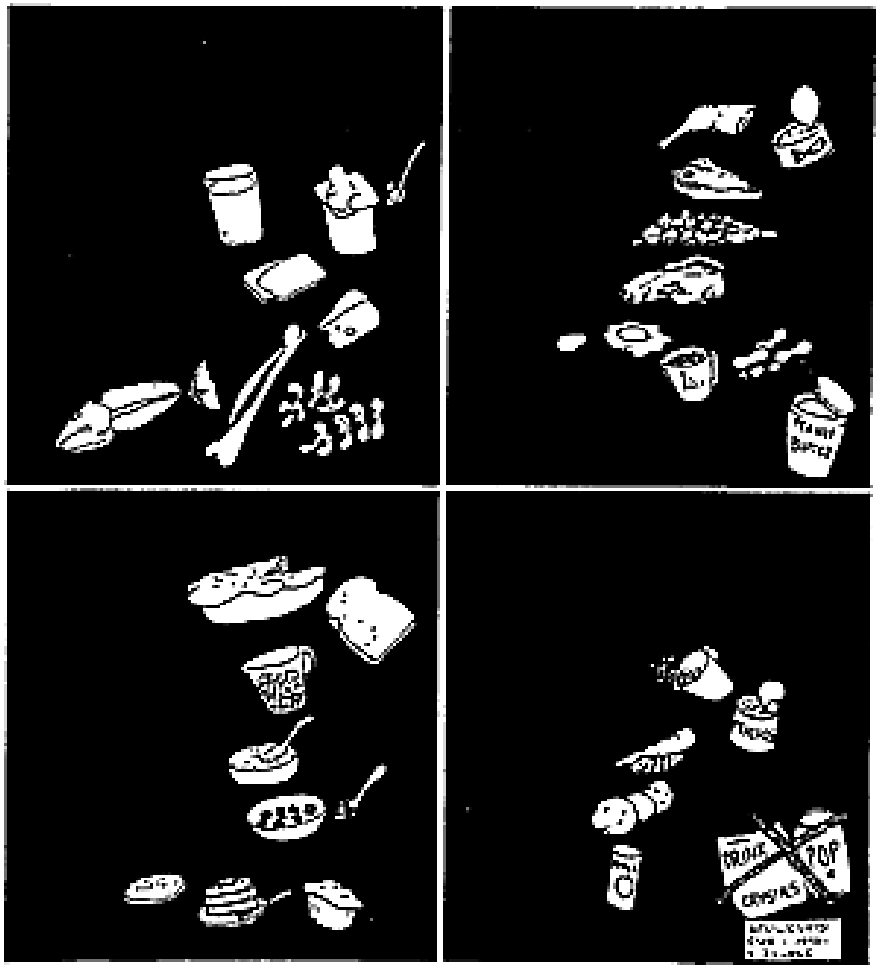
Bannock, Bread and Cereal

animal brains
bannock*
bone marrow
bread *
flour *
liver
macaroni *
muffins
muktuk
oatmeal *
pancakes
pilot biscuits *
rice *
soda crackers *
spaghetti *
whole wheat
wild rice

N.W.T. FOOD GUIDE

Eat foods from each group every day for health.





SERVING SIZE:

Specific serving sizes are applied to foods within each food group to ensure a certain amount of nutrient is provided by each serving, for example:

Milk and Milk Substitutes:
Each of the following serving examples yields approximately 300mg of calcium:

250 ml (1 cup) of milk
175 ml (3/a cup) of yogurt

45 gm (1 1/2 oz.) of cheese
200 ml of almonds
2 medium stalks of broccoli

Meat, Fish, Bird, Egg and All Edible Parts:
Each of the following serving examples yields approximately 12 to 22 gm of protein:

60 to 90 gm (2 - 3 oz.) cooked meat, fish, poultry
60 ml (4 tablespoons) peanut butter
250 ml (1 cup) cooked dried peas, beans or lentils
125 ml (1/2 cup) nuts or seeds
60 gm (2 oz.) cheddar cheese
125 ml (1/2 cup) cottage cheese
2 eggs

Fruits *and* Vegetables;
Each of the following serving examples yields approximately 200 to 400 RE of vitamin A or 20 to 40 mg of vitamin C:
125 ml (1/2 cup) vegetables, berries or fruits (fresh, frozen, or canned)
125 ml (1/z cup) juice (fresh, frozen or canned)

Bannock, Bread and Cereals:
Each of the following serving examples yields approximately 15 gm of carbohydrates:

1 slice of bread
1 piece of bannock
125 ml (1/2 cup) cooked cereal
175 ml (3/4 cup) ready to eat cereal
1 roll or muffin
125 to 175 ml (1/z - 3/4 cup) cooked rice, macaroni, spaghetti or noodles
1/2 hamburger bun

Note: Preschooler and child serving sizes are smaller.

NUMBER OF SERVINGS:

Nutrient requirements are influenced particularly by age, sex, growth rate and activity. For this reason the number of recommended servings varies, e.g.:

Milk and Milk Substitutes: children: two - three servings adolescent: three - four servings adult: two servings pregnant or lactating woman: three - four servings To ensure the development of strong bones and teeth a growing child requires two - three servings of milk a day, whereas an adult requires two servings for body maintenance.

Meat, Fish, Bird, Eggs and All Edible Parts:
all ages: two servings

Fruit and Vegetables:
all ages: four - five servings

Bannock, Bread and Cereal:
three - five servings or more, depending on levels of physical activity

It is not necessary to have all servings of a food at any one time. It is the day's total intake from each food group that is important. A child may prefer to have two servings of milk in four half cup portions throughout the day.

The N.W.T. Food Guide recommends types and amounts of foods to eat to be healthy. Eating the recommended number and size of servings from each food group ensures a balanced diet. The range in the number of servings represents the change in nutrient requirements that occurs throughout the lifecycle. The recommended serving size for each food within a group may vary as each item contains different amounts of leader nutrients.

PRINCIPLES OF HEALTHY EATING

In addition to indicating what to eat, the N.W.T. Food Guide promotes three principles for healthy eating: variety, balance and limit.

Variety: A variety of foods ensures that all nutrients will be obtained. Variety also makes meals more appealing and stimulates eating. No one food or food group provides all the necessary nutrients needed for health. To obtain all the required nutrients, the N.W.T. Food Guide recommends eating a variety of foods from each food group. Variety can be achieved by selecting different foods within each food group at meal and snack times.

Balance: Many of today's illnesses stem from an imbalance between how much we eat and how much we exercise. To maintain a healthy weight, we should eat a diet containing a moderate amount of energy, and exercise regularly. Energy is used daily for body maintenance, repair, growth and physical activity. The amount of energy needed varies with age, sex, level of physical activity and body size. An active person needs more food energy than someone who sits most of the day. If you eat more than the body needs, you could gain weight. Obesity is a major problem in the N.W.T. and is associated with health problems such as diabetes and heart disease.

Limit: Not all food contributes to the maintenance of our health. Foods that contain a lot of sugar, salt and fat should be eaten only occasionally. Foods which are high in energy are those which are high in sugar and fat content. Alcohol is also very high in calories.

Low energy foods are usually more nutritious, contain fewer calories and provide many of the important nutrients our bodies need for daily functioning. High energy foods contain large amounts of sugar, and/or fat and usually salt, with few of the required nutrients our bodies need. It is important to choose foods wisely - choose nutritious low energy foods.

MAKE ENERGY-WISE CHOICES

Food Group	Nutritious - Low Energy Foods	High Energy Foods
Milk and milk products (Blue Group)	Skim milk, 2% milk, plain yogurt, lowfat cheese, cottage cheese.	Whole milk, ice cream, flavoured yogurt, cream, cheese.
Meat, fish, birds and eggs (Red Group)	Caribou, moose, chicken, fish, eggs, dried beans and peas, lean meats, organ meats.	Canned luncheon meats, sausages, bologna, peanut butter, nuts, wieners.
Fruits and vegetables (Green Group)	Unsweetened fruit juice, fresh berries, fruits, vegetables, plain frozen fruits . and vegetables, fruits canned in "own juice".	Fruits canned in "heavy syrup", frozen vegetables in sauces, dried fruit, sweetened fruit juice.
Bannock, bread and cereal (Orange Group)	Bannock, whole grain muffins, bread, (unsweetened) cereals, pilot biscuit, plain popcorn.	Sweetened cereals, cake, doughnuts, cookies, pastries.
Foods that do not belong to a food group.	Water, clear soups.	Soft drinks, chips, chocolate bars, candies, sugar, butter or margarine, cream, cream cheese, sour cream, buttered popcorn.

MEAL NAMES AND TIMES

Canada's Food Guide does not state a specific number of meals a day. For good nutrition and vigour, food intake should be spread throughout the day. "Three meals a day" is perfectly acceptable, but there is no scientific reason to make it a rigid rule. The number and timing of meals and snacks depends on personal preference - meal frequency is a lifestyle decision.

Students may eat at different times depending on the circumstances within the home.

In homes where one or more adults work (in the wage economy), and where there are school age children it is likely that students will eat a:

morning meal - or breakfast
noon meal - or lunch
evening meal - or supper/dinner
- snacks

(The terms morning meal, noon meal and evening meal are English translations of the corresponding terms in Inuinaktun, and are similar in other native languages.)

However some students may eat at other times. In some homes, food is always available and people eat continuously throughout the day, without having main meals. Not everyone eats main meals before school, at noon hour and after school/work.

What is important is that people follow the N.W.T. Food Guide, in terms of recommended numbers of daily servings and sizes of these servings. If people snack continuously, it is important that these snacks be nutritious, and include varied food items from each food group. It is also important that students start the day with nutritious food. This gives them the energy they need for work and play and aids their concentration.

WHY IT IS IMPORTANT TO START THE DAY WITH NUTRITIOUS FOOD

Many reasons are often given for skipping a morning meal. However, this is the most important food of the day. It ensures quick energy to start the day and lasting energy to carry out morning activities.

It can be any combination of foods, either solid or liquid, that supplies the nutrients needed by our bodies.

People who do not start the day with nutritious food usually fall victim to hunger pangs around coffee break time and opt for nutritionally-poor snacks such as doughnuts. They may soon get into the habit of eating high-calorie snacks, a practice which can lead to being overweight. Children who do not start the day with nutritious food have poor listening skills and are unable to concentrate on their work for long periods of time.

Nutritionally adequate food has the staying power to prevent hunger until the next meal, thus discouraging midmorning snacks and lunchtime extras. A nutritious morning meal consists of food from at least three of the four food groups.

Ref.: Nutrition Communications, Kellogg Salada Canada Inc.

NON-NUTRITIOUS FOODS

Not all available foods can be classified into the four food groups. Such foods contain too few nutrients and/or too much sugar, salt and fat which can contribute to poor health. Other than providing energy (calories or joules), these foods have very few nutrients to help our bodies grow and be healthy.

The following two types of food do not belong in any group of the N.W.T. Food Guide:

1. Foods with very few nutrients, e.g., ordinary and diet soft drinks and gum, which are usually fabricated, i.e., they do not come directly from nature and often contain unnecessary additives; these foods do little to build a strong body.

2. Foods such as potato chips, processed meats and chocolate bars which suffer nutritionally because processing removes many useful nutrients and leaves only those nutrients, e.g., sugar, fat and salt, which can be unhealthy when consumed in excess; they do little to build or maintain a strong body, and often contribute to tooth decay, obesity or high blood pressure.

The following foods in particular are often considered healthy when in fact they contain large amounts of sugar, fat or salt. They do not belong to any food group:

- whipping cream, cereal cream and sour cream, although they are dairy products, they do not belong to the Milk Group because they contain very little calcium or protein and are high in fat; - non-dairy beverage whiteners, e.g., Coffeemate, even though they look like milk in coffee and tea, do not belong to the Milk Group because they contain no milk, but mostly sugar and oils; - canned meats, e.g., Klik, Spam, bologna, side bacon and wieners do not belong to the Meat Group because they contain very little protein and Iron and are high in salt and fat; - fruit drinks, fruit pop, Fruit Roll-ups, fruit jam, jelly and Jello do not belong to the Fruits and Vegetables Group because they are all high in sugar and contain very few vitamins; - doughnuts, sweet buns, cookies and cakes have all the nutrients of the flour or cereal used in their baking, however they also contain extra fat and sugar. Sweetened cereals are sometimes enriched, and therefore contain nutrients, however they have a high sugar content. ,

These foods are sometimes referred to as "extras". The N.W.T. School Health Program has avoided use of this term and instead labelled them as foods which do not belong to any food group.

SNACKS

In the **N.W.T. School Health Program** "snacks" refer to foods eaten between main meals. They may be either nutritious (belonging to one of the four food groups) or non-nutritious (not belonging to a food group), depending on the food eaten. Snacking habits vary greatly among families and cultures. In some families food may be more or less continuously available for eating between meals. In others, eating between meals may be discouraged. The teacher should be sensitive to this and try to determine what snacking habits his/her students have.
It is important, however, that all snacks are nutritious and are included as part of the recommended daily servings.

IMPACT OF SNACKING ON NUTRITIOUS MEALS

Nutritious meals are defined as those where there is at least one serving from each of the four food groups. The exception is breakfast which requires servings from only three food groups.
This concept of nutritious meals is based on the practice of very little snacking. If, in fact, students snack a lot (on nutritious foods) then they would not eat servings from each food group at each meal. Students should look at their daily food intake to determine if they are eating nutritiously.
Recommended daily servings are:

Milk and milk substitutes - 4 servings
Meat, fish, birds and eggs - 2 servings
Bannock, bread and cereal - 3 - 5 servings
Fruit and vegetables - 4 - 5 servings

Again, it is important to emphasize the need for nutritious food to start the day.

SNACK GUIDE

Food Group	Eat Anytime!	Eat Only With Meals and Brush Teeth Afterwards	Don't Snack on Regularly	Avoid These Snacks!
Milk and milk substitutes (Blue Group)	Plain milk, plain yogurt, cheese, soft ends of bones, soft fish bones	Milk puddings, ice cream, milkshakes, sweetened yogurt, strawberry milk, chocolate milk		
Meat, fish, birds and eggs (Red Group)	Country meats, store meats, dried meat, fish, wild birds, fish eggs, nuts and seeds, hardcooked eggs, peanut butter			
Fruits and vegetables (Green Group)	Raw berries, fruits, vegetables, salads, vegetable soup, seaweed, unsweetened fruit and vegetable juice, animal stomach contents	Raisins, dried fruit, sweetened fruit, sweetened fruit juice, unsweetened fruit leather		
Bannock, bread and cereal (Orange Group)	Bannock, enriched and whole grain breads and muffins, crackers, unsweetened cereals, plain popcorn	Granola bars, home-made; low sugar, granola, whole grain cookies		Presweetened cereal
Other foods (foods in more than one group and foods not in the Food Guide)	Pizza, clear soups, sand-wiches (meat, cheese, eggs or peanut butter) hamburgers		Pretzels, buttered/ salted popcorn, potato chips, cheesies, sugar-free soft drinks, sugar-free gum	Regular soft drinks (pop), honey, jam, jellies, chocolate bars, cookies, candies, regular gum, breath mints, popsicles, sweet buns, doughnuts. "Drink' crystals (Tang), fruit roll-ups

A VARIETY OF HEALTHY SNACK FOODS

FRUITS AND VEGETABLES

Unsweetened fruit or vegetable juice (the word "juice" must be on the label); raw fruit and vegetable pieces; canned fruits that are unsweetened or packed in their own juices; fruit juice popsicles; wild berries; wild vegetables.

MILK AND MILK PRODUCTS

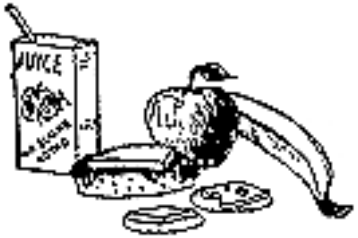
Homo milk, evaporated, UHT; 2% of skim milk, or reconstituted skim milk powder or a combination; low fat cheese; cheese or cottage cheese; plain yogurt; plain yogurt with fresh fruit or juice added; soft ends of bones to chew on.

BREAD AND CEREALS

Bannock; crackers, pilot biscuits, etc.; unsweetened dried cereals; cooked cereals; whole wheat bread or toast; enriched white bread or toast; fruit or whole grain muffins or loaf; homemade cookies - oatmeal, peanut butter.

MEAT AND ALTERNATIVES

Wild game - raw, fresh, frozen, cooked or smoked; fish -canned, fried, frozen or smoked; hard cooked egg; peanut butter; nuts and seeds - sunflower and pumpkin; cheese; meat - sliced, cold, cooked, canned, dried, smoked.



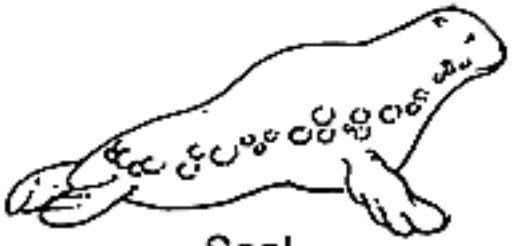
COMBINATION SNACKS

Bannock with peanut butter, cheese, berries, raisins, etc.; celery sticks with peanut butter or cheese; mini pizza (English muffin or roll with tomato or spaghetti sauce and cheese); peanut butter on toast or bread; cheese on toast or bread; cheese and crackers; cheese and fruit; raw fruits or vegetables with a yogurt dip; cereal with milk and fruit.

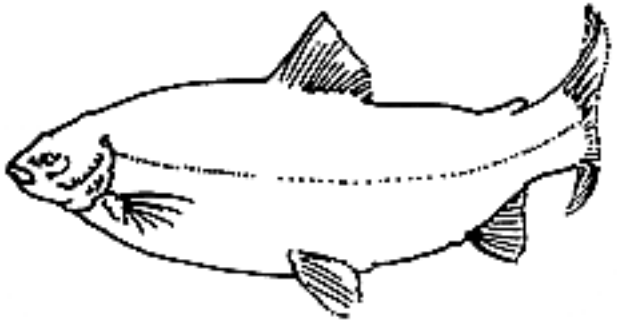
Snacks can be served with unsweetened fruit juice or milk as a beverage. To quench thirst, water is the best!

COUNTRY FOODS FROM THE MEAT, FISH, BIRDS AND EGGS AND ALL EDIBLE PARTS GROUP

Leader Nutrients: Protein, Iron



Seal



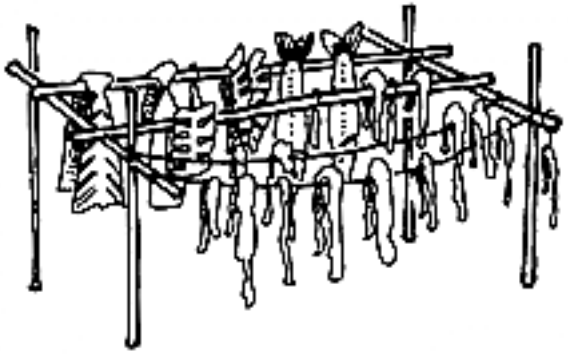
Fish

Rabbit

Whale

COUNTRY FOODS FROM THE MEAT, FISH, BIRDS AND EGGS AND ALL EDIBLE PARTS GROUP

Leader Nutrients: Protein, Iron



Dried Meat and Fish

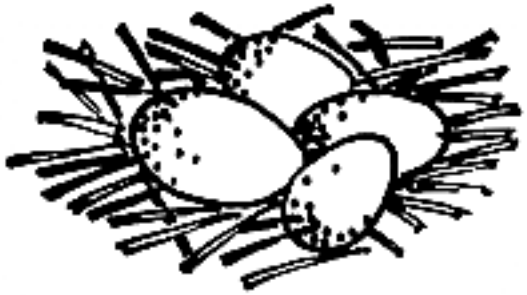
Caribou

Muskrat

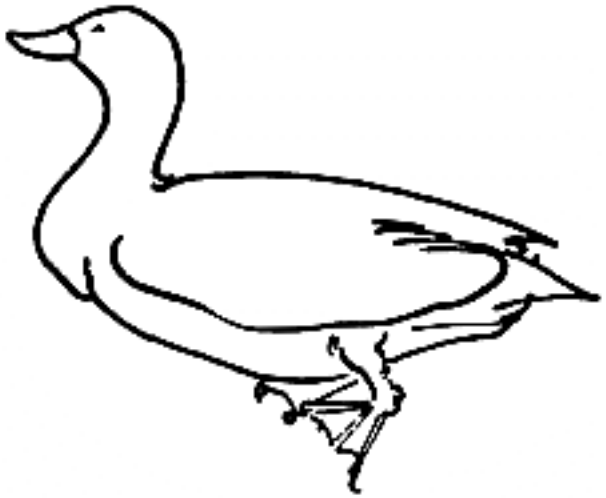
COUNTRY FOODS FROM THE MEAT, FISH, BIRDS AND EGGS AND ALL EDIBLE PARTS GROUP

Leader Nutrients: Protein, Iron

Ptarmigan



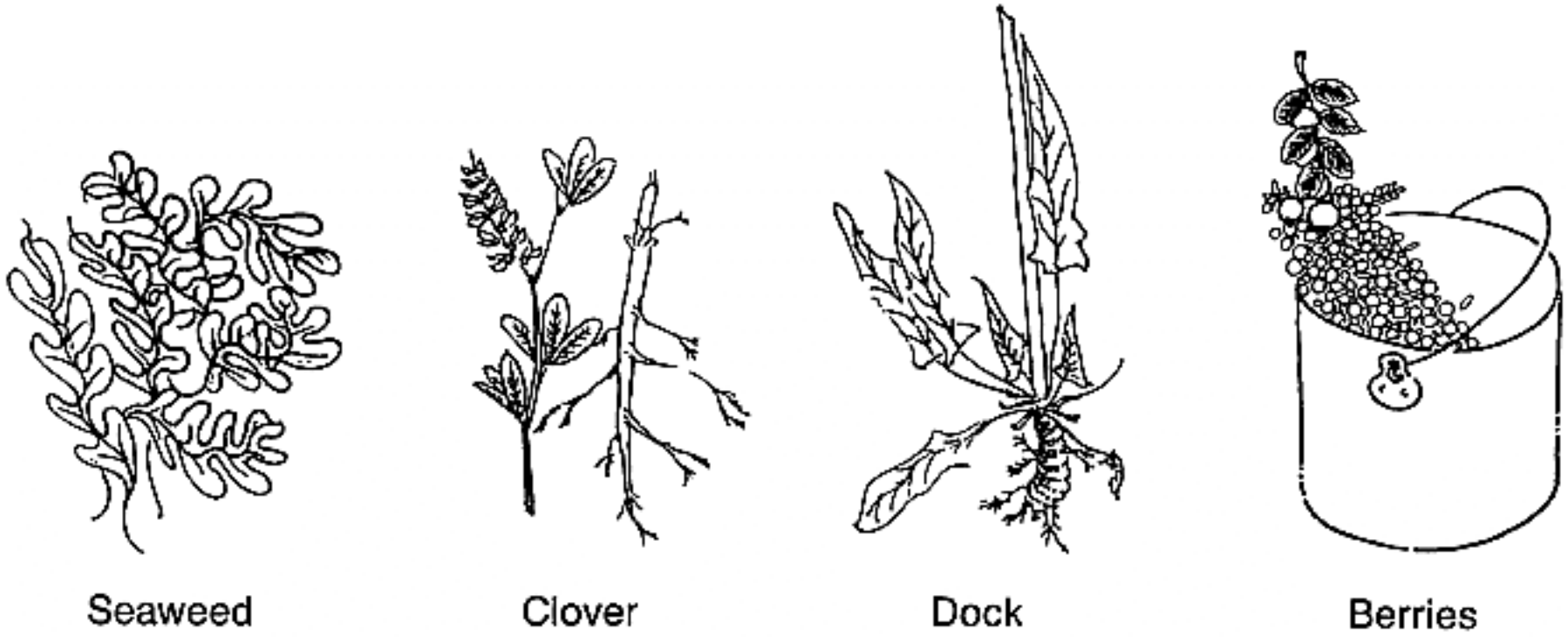
Eggs



Duck

COUNTRY FOODS FROM THE FRUIT AND VEGETABLES GROUP

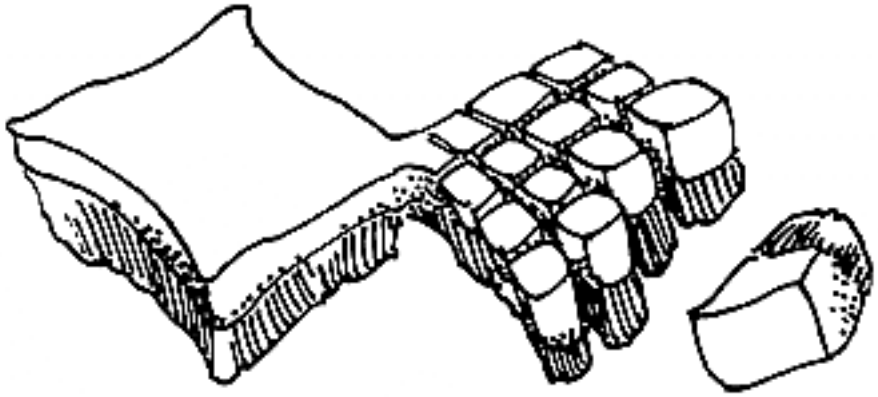
Leader Nutrients: Vitamin A, Vitamin C



COUNTRY FOODS FROM THE FRUIT AND VEGETABLES GROUP

Leader Nutrients: Vitamin A, Vitamin C

Seal Fat

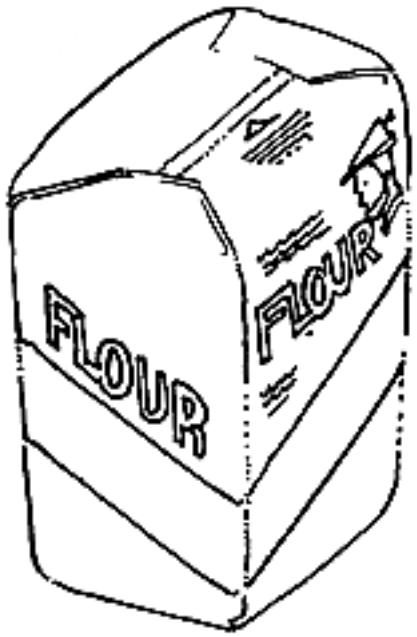


Muktuk

Even though these foods come from animals they are part of the Fruit and Vegetables Group because of their high vitamin content.

COUNTRY FOODS FROM THE BANNOCK, BREAD AND CEREAL GROUP

Leader Nutrient: Carbohydrates for Energy



Flour

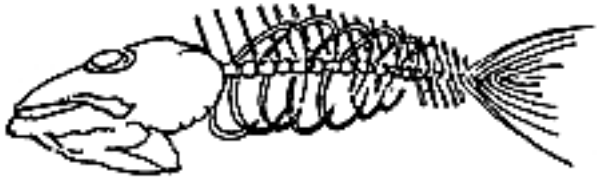
Oats

Bannock

Pilot Biscuits

COUNTRY FOODS FROM THE MILK AND MILK SUBSTITUTES GROUP

Leader Nutrient: Calcium



Fish Head and Bones

Leg Bone

Rib Bones

Even though these foods may seem like meat sources, they are part of the Milk and Milk Substitute Group because of their high calcium content.

TIPS ON NUTRITIOUS PURCHASES IN ISOLATED COMMUNITIES

How to remain healthy without fresh foods.

FRUIT AND VEGETABLES

1. Frozen, canned or dried fruits and vegetables are good sources of vitamin A and C.
2. The following vegetables are rich in vitamin A and C: carrots, broccoli, brussel sprouts, cauliflower, cabbage, potatoes, tomatoes, tomato juice, spinach, sweet potatoes, green peppers, strawberries, apricots, apple and orange juices.
3. Cost. Most canned vegetables and fruits cost the same price per serving as frozen ones. Food price comparisons should always be done per serving i.e., approximately 100 gm or 1/z cup (125 ml). It is worthwhile to calculate, compare and save.
4. Frozen vegetables. Most frozen vegetables are very rich in vitamin C, e.g., a serving (1/z cup) of frozen broccoli, cauliflower, brussel sprouts, or green pepper contains more vitamin C than an orange.
5. Frozen french fries. Frozen have the highest vitamin C content of all the frozen, canned or dried potato products. To avoid too many calories, french fries should be baked instead of deep fried; any additions such as gravy should be avoided.
6. Frozen vegetables are economical. Frozen vegetables are often more economical than fresh because there are no inedible parts or food lost during preparation.
7. Plain frozen vegetables are economical. Frozen vegetables with sauce or other additions are usually twice as expensive as plain, frozen vegetables.
8. Carrots. The prices and nutrition per serving of frozen carrots are comparable with canned carrots.
9. Unsweetened frozen strawberries and frozen fruit juices are the most nutritious buy and the most economical choice of all frozen fruits and fruit juices.
10. Canned and dried fruits are good sources of vitamin A. The best choices are apricots, peaches, tangerines, prunes and raisins.
11. Dried fruits can be eaten as such, or for variety, they can be rehydrated in water or fruit juices; e.g., prunes rehydrated in apple juice are excellent.
12. Wild berries usually abound in northern communities. Three rosehip berries have more vitamin C than one orange. Fresh, dried or frozen berries have a higher vitamin C content than berries in jam or jellies and are better for you.
13. Fresh produce. When fresh produce is available in isolated communities you get the most nutrition out of your food dollar by selecting cabbage, carrots, turnips, potatoes, tomatoes, oranges and bananas; e.g., have a coleslaw salad made with shredded cabbage and carrots; it is an excellent source of vitamin A and vitamin C.
14. Garden produce. Many vegetables can be successfully grown north of the 60th parallel either outdoors in greenhouses or in hydroponic gardens.
15. Decorate food with sprouts. Fresh sprouts can be an interesting alternative to canned or frozen vegetables. Growing sprouts is year-round, instant gardening with minimum equipment, space and effort.

MILK AND MILK SUBSTITUTES

16. Fresh milk and milk products are often rare in isolated communities but powdered and evaporated milk and processed cheese are usually available.
17. Milk and milk products are important food sources of calcium, protein and vitamins (riboflavin, vitamin A, vitamin 812 and vitamin D).
18. Add powdered milk to cooking. One simple and inexpensive way to increase the protein and calcium content of food is to use powdered milk in baked goods, meat loaves, casseroles, macaroni and cooked cereals. A 1/4 cup of dry powder is equivalent to one cup of milk.
19. Evaporated milk makes delicious chowder, home made yogurt, milk desserts (pudding), etc. 20. Reconstituted powdered milk. Powdered milk is acceptable to many people when reconstituted according to the directions and refrigerated for 24 hours.

N.B.: Dairy substitutes - Any dairy substitutes such as coffee whitener and whipped toppings are made from non-dairy foods and should not be used to replace milk.

MEAT, FISH, BIRDS AND EGGS

21. Alternates. Alternates are foods that are rich in protein and iron and can replace meat e.g., eggs, cheese, peanut butter, nuts, seeds, dry peas, beans.
22. Meat, fish, birds and eggs are good sources of protein, iron, niacin, thiamin, riboflavin, vitamin A, vitamin B12 and fat.
23. Frozen meat and fish. Plain frozen meat and fish are much cheaper than prepared items e.g., frozen fish in sauce or TV dinners are twice or three times the price of the equivalent plain items.
24. Canned fish and meat are often less expensive than frozen fish and meat. The best buy for nutrition and cost is canned fish, especially mackerel and sardines. Canned fish can be served in sandwiches,, chowders, casseroles, pies, etc.
25. Processed meat can be prepared in many ways. Shop carefully for processed meats. They can be very expensive when bought pre-sliced. Buy them in bulk and slice the meat yourself.
26. Canned beans and canned meat stews contain less protein than canned fish or meat, but lower prices and practicality made them popular items among consumers. Canned stews and beans can be used occasionally in the family's diet.
27. Canned noodles and dinners and ravioli, spaghetti provide very little protein on their own and must be supplemented by either meat, eggs or cheese if they are to be served as a main dish.
28. Use dry peas and beans in cooking. Dry peas and beans are economical sources of protein and can extend soups and stews.

BANNOCK, BREAD AND CEREAL

29. Dry goods are usually well stocked in food stores in isolated communities.
30. Flour, cereals, rice and noodles provide energy, vitamins B and some protein.
31. Enriched flour. In Canada white flour must be enriched with iron, thiamin, riboflavin and niacin. Therefore, all baked goods contain these nutrients whether homemade or commercially prepared.
32. Home baking. Selecting enriched or whole grain flour will make homemade baked goods very nutritious. Many wholesome products can be added to home baked products to increase their nutritional value; e.g., powdered milk, wild berries, dried fruits, peanut butter, cheese or fish eggs in bannock.
33. Calcium enriched flour. Flour can also be enriched with calcium. Flour packaged by the Hudson Bay Co. is enriched with calcium and is therefore available to northern communities which have a Bay store.
34. Whole grain cereals, cooked, without sugar. Whole grained cereals are better than refined cereals. Cereals which require cooking are better than ready to eat; e.g., oatmeal is better than Corn Flakes. If choosing ready-to-eat cereals, avoid the sugar coated ones. If in doubt, read the label e.g., Corn Flakes are better than Sugar. Frosted Flakes.
35. Noodles, e.g., macaroni, spaghetti. Most of these products are enriched with B vitamins and iron. The label will tell you which ones are enriched. Enriched noodles, provide better nutrition for your food dollar. Noodles keep indefinitely when stored in the original packages in a dry place.
36. Noodles alone are not a meal. To make a nutritious meal, noodles need to be accompanied by other foods; e.g., macaroni and cheese should be served with meat, fish, hard boiled eggs, or additional cheese.
37. Brown or converted rice. The best rice for price and nutrition is brown rice or parboiled or converted rice. Plain rice, e.g., Uncle Ben's Converted, is cheaper and contains less salt than seasoned rice (Spanish Rice).
38. Bread, bannock, cereals, noodles, rice are good and less expensive than many other foods. Eat them instead of junk food.
39. Other foods. Commercial snack foods like chips, chocolate, pop are high in sugar, oil, salt and calories and are not nutritious. They should be avoided.

HOW TO READ FOOD LABELS

1. An extremely important part of wise food shopping is reading and understanding the information given on food labels.
2. By doing so you can compare foods for quality, price, ingredients, and nutritive values and buy the ones that suit your needs.
3. All food labels must have the name of the food, the net quantity, and the name and address of the manufacturer, packer, or distributor, should the consumer want to contact him.
4. If the food is sold in different forms (for example, green beans can be sold whole or cut), the label must specify what form is in the container.
5. If there is a picture of the food as well, it must depict the food either as it is or as it could look when served.
6. The net quantity is given as a weight or a count if the food is solid. It is given by volume if the food is liquid. If the food is packed in a liquid, the net weight includes the liquid (the weight of the food without the liquid is the drained weight).
7. The list of ingredients must be on all pre-packaged food products.
8. The list of ingredients is one of the most important pieces of information provided by the food label.
9. The ingredients are listed in descending order. The one which weighs the most comes first and so on. It can also be given in percentages, again in descending order. This helps tell you if canned "meat stew" actually has more vegetables than meat or which cereal has the most sugar.
10. While reading the list of ingredients be especially concerned with the amounts of sugar, salt (sodium), and fats. Most nutritionists recommend limited intake of these three ingredients. Unfortunately, most processed foods contain them.
11. How to store the product. Food labels include information on how and where to store the product (if it should not be kept at room temperature).
12. There are two types of Dating systems - coded and open. Coded dates are numbers and letters that, because they are part of a code, can be read only by those who understand the code. These coded dates are often used by supermarkets for rotating their stock. Open dating, on the other hand, is an easily understood statement of a date that indicates the age of the product to the consumer. The date is accompanied by an explanation of what it means, such as "packaged on" or "best before" this date. If you are unsure of what the date means, ask the store manager. Although a date can appear on any type of
food product, they are most often found on perishable foods such as dairy products, baked goods and meats.
13. Best before date. After that date, the product may still be edible, but is not in top form. The Best Before date is not an expiry date. Most products don't have to be thrown away after the best before date except for baby food and infant formula.
14. Artificial flavour. If there is artifical flavouring in the product, the food label will tell you. A picture of a peach or some other natural food on the label does not necessarily mean that the product contains that natural food.
15. Fortified products. Fortification with added vitamins or minerals (nutrients) means that vitamins or minerals are added to a food product that does not normally contain them, or contains it in a relatively small quantity. This is legislated by Health and Welfare Canada - Health Protection Branch; e.g., milk is usually fortified with Vitamin D.
16. Enriched with vitamins and minerals. This means that some of the nutrients that were lost during the processing of a food have been put back into it. Nutrients are added to staple foods that supplied significant amounts of these substances before processing. For example, B vitamins and iron are added to white flour.
17. Substitute foods, such as simulated meat or poultry products, must be nutritionally similar to the foods they are intended to replace.
18. Meal replacements, such as instant breakfasts or weight reduction diet products, must supply essential nutrients in amounts similar to those provided by a meal.
19. Calorie-reduced means that the food has half as many calories as the food it replaces.
20. Carbohydrate-reduced means that the food product has no more than half the normal carbohydrate content.
21. Sugar-free or sugarless means that a carbohydrate-reduced food contains no more than one calorie per 100 grams or 100 millilitres.

22. Caffeine-free means that the product has no caffeine; e.g., caffeine-free coffee, caffeine-free cola.
23. Natural. A term to be especially wary of is "natural". It is used liberally in food advertising, and the tendency is for the price of the food to increase with the use of this particular designation. In Canada, the term has not been officially defined and regulated as to its use. Therefore, natural has no specific meaning on a food label.
24. With the advent of computerized checkout systems, many labels have the universal price code symbol printed on them. This symbol is a pattern formed by numbers and lines of varying weights and lengths that, when passed over the machine, identifies the products to the computer. The computer then registers the price of the food and updates the inventory of the stock of that item. The customer in turn receives a register tape on which all of the items are printed out with their names and prices. Because the prices are stored in the computer, the main worry among consumers is that the stores, hoping to cut costs and workloads, will do away with the practice of pricing individual packages. This would make if difficult, if not impossible, for the consumer to compare prices while shopping.

Material for Teacher Background Information is adapted from NWT Food Guide (Teaching Guide): Regional Nutritionist, Medical Services Branch, NWT Region Nutrition Month Kits (1985 - 1988): Nutrition Liaison Committee of the NWT, Medical Services Branch, NWT Region.

COMMON FOOD ADDITIVES

Preservatives	Enriching Additives	Fortified Additives	Emulsifiers (thickening agent)	Leavening Agents
acetic acid adipic acid amylases *artificial coloring artificial flavoring (Vitamin C) ascorbic acid ascorbyl palmitate benzoic acid (sodium benzoate) **butylated hydroxyanisole (B.H.A.) **butylated hydroxytoluene (B.H.T.) caffeine lactic acid (calcium lactate) sorbic acid (calcium, sodium or potassium sorbate) chewing gum base citric acid casein corn syrup sugar (sucrose, dextrose, invert sugar) monosodium glutamate (MSG) group meat tenderizers fumanc acid glycine hydrogenated vegetable oil (shortening) imitation beef and chicken flavors lactic acid (calcium lactate) malt flour modified starch oxysteann saccharin salt silicone dioxide *sodium nitrate *sodium nitrite sorbital sugar sulphur dioxide sodium bisulfite tannin, tannic acid vanilla (ethylvanilla)	ascorbic acid niacin (Vitamin B3) riboflavin (Vitamin B2) Thiamin (Vitamin B11)	beta carotene calcium phosphates ergosterol (Vitamin D) ferrous gluconate reduced iron riboflavin thiamin	agar propylene glycol alginate *carrageenan corn syrup dextrin gelatin glycerine (glycerol) hydroxylated lecithin karaya gum lecithin furcelleran locust bean gum modified starch mono and diglycendes pectin polysorbate 60,65,80 sorbitan monostearate larch gum	gluconic acid

Note: * Additives with one asterisk refer to those additives that may be harmful and some are thought to be carcinogenic. * * The necessity of these additives is questionable.

LIFECYCLE NUTRIENT NEEDS

The quantity of nutrients needed depends upon a person's age, sex, weight, special physiological needs and activity level. The N.W.T. or CANADA'S FOOD GUIDE can assist Canadians in choosing foods to satisfy these varying nutrient needs as recommended in the Recommended Nutrient Intakes for Canadians.

The basic number of servings from the FOOD GUIDE provides 4000 - 6000 kJ (1000 - 1400 kcal). However, most people need a greater energy intake daily to maintain energy balance. There are two ways to get that additional energy:
- by increasing the number and size of servings from the food groups
- by adding other foods and beverages that are not included in the FOOD GUIDE

These sources of energy increase the FOOD GUIDE's flexibility and the variety in foods which Canadians can enjoy in their meals and snacks.

PREGNANT AND LACTATING WOMEN

Adequate nutrition during pregnancy is essential for the health of the child and the mother. During pregnancy maternal and fetal tissues grow at a rapid rate, and during lactation there is daily production of milk. These physiological functions require increased intakes of many nutrients.

Energy needs increase by about 400kJ (100 kcal) a day in the first trimester of pregnancy, and 1300 kJ (300kcal) a day in the second and third trimesters. During lactation an additional 1700 kJ (400 kcal) are recommended. Pregnancy is not the time for weight reduction diets. Inadequate food intake could deprive the fetus of essential nutrients and energy. Weight gain during pregnancy should be gradual and monitored by the medical doctor.

Quality and quantity of food eaten are especially important during pregnancy and lactation. For example, by increasing MILK AND MILK SUBSTITUTES to three or four servings daily, a pregnant or lactating woman can get the additional protein, vitamin D, calcium and phosphorus she needs. Five servings from the BANNOCK, BREAD AND CEREAL group will contribute to the need for more thiamin, riboflavin, niacin, iron and energy.

Pregnant and lactating women need to include choices from the FRUIT AND VEGETABLES group that are rich in vitamin A, vitamin C and folacin. Green leafy vegetables, asparagus, mushrooms, broccoli, lima beans, lemons, bananas, strawberries and cantaloupe are wise choices for supplying folacin.

Whole grain BANNOCK, BREAD AND CEREALS and FRUIT AND VEGETABLES help prevent constipation, a common problem during pregnancy. Small frequent meals and nutritious between-meal snacks reduce nausea and heartburn.

Women in the childbearing years, whether or not they are pregnant, have the most difficulty meeting their requirements for iron. They need to take special care to include iron-rich choices in their daily food patterns: foods such as egg yolks, dried peas and beans, nuts, dark green vegetables and red meats. Liver is a wise choice from the MEAT, FISH, BIRD, EGGS group because of its iron content as well as the amount of protein, vitamin A, folacin, thiamin, riboflavin and niacin it supplies.

SAMPLE MEAL PATTERNS FOR WOMEN BASED ON CANADA'S FOOD GUIDE

A 30-year old woman might have	A 30-year old pregnant woman* might have:
2 servings 2% milk	4 servings 2% milk
3 slices bread	4 slices bread
1 serving cereal	1 serving cereal
2 servings fruits	2 servings fruits
3 servings vegetables	3 servings vegetables
2 servings meat, fish, poultry or alternates	2 servings meat, fish, poultry or alternates

*for normal pregnancies

INFANTS

Specific recommendations for infants are not included in CANADA'S FOOD GUIDE because the quality and kind of food appropriate for an infant change rapidly during the first two years.

Human breast milk is optimal in nutritional content and digestibility for young infants, especially during the first six months after birth. It has the added advantage of containing antibodies which help in combating infectious diseases. Also, infants are less likely to be allergic to human milk than to cow's milk.

Breast-feeding enhances bonding between mother and child. It promotes a special closeness, both emotionally and physically, which helps to build a secure and loving relationship.

If a mother is unable to breast-feed, she can use one of the many commercial infant formulas available. Whole cow's milk should not be used for infants under six months of age. Health professionals recommend not using partly skimmed (2%) or skimmed milk before twelve to eighteen months. Some health professionals recommend not using skimmed milk before two years of age.

Nutritionists, dietitians or medical doctors can advise mothers on their infants' feeding programs, and can provide pamphlets on infant feeding techniques and the introduction of solid foods.

PRE-SCHOOLERS AND CHILDREN

Children need to establish patterns of good nutrition, normal weight and an active lifestyle which will last them a lifetime. Experience and example are the two major influences on a child's habits. Parents have a special responsibility to set a positive example in their own eating habits and to provide children with a wide variety of foods from the four food groups.

It is important to respect the size of a child's appetite. At certain times, especially during the pre-school years, the child is not growing quickly - energy needs lessen. Constant coaxing to eat "just a few bites more" can contribute to the serious and often lifelong problem of obesity.

This is the time when the portion of food served at a particular meal may be less than the serving size recommended in CANADA'S FOOD GUIDE. But the GUIDE is still useful for pre-schoolers. The meal pattern only needs changing. Preschoolers often need small between-meal snacks from CANADA'S FOOD GUIDE. Snacks which are high in sugar or fat content can interfere with a child's appetite for more nutritious foods, and can contribute to dental caries.

ADOLESCENTS

Nutrient needs are highest during the adolescent years because of the demands of growth and maturation. Teenagers need calcium, particularly for skeletal development. Three to four servings of MILK AND MILK PRODUCTS for this age group are recommended.

An adolescent's lifestyle may include frequent snacking. By having available plenty of food choices from the NWT or CANADA's FOOD GUIDE, and by setting a good example themselves, parents can encourage nutritious snacking habits. Schools, recreation centres and other institutions can reinforce good food habits by making wise food choices available.

A physically-active teenager has an increased energy requirement, while the energy needs of an inactive student are considerably less. Concern over body image can lead to inappropriate food patterns. Unfortunately, many adolescent girls choose diets which are low in calcium and iron. They may also need some assistance in planning nutritious weight control diets to prevent overweight or underweight.

The pregnant adolescent must meet the nutritional needs of her own growth as well as the nutritional demands of pregnancy. She will need to follow carefully the advice given for pregnant and lactating women, and will also require additional servings from the MILK AND MILK PRODUCTS group to meet her own protein and calcium requirements.

COMPARISON OF MEAL PATTERNS FOR CHILDREN AND TEENAGERS

A 15-year-old boy has greater nutrient requirements than a 9-year-old girl. To meet those extra needs, the boy can choose more servings within the ranges in the FOOD GUIDE. With the patterns below, both the boy and the girl meet or exceed the nutrient recommendations of the Recommended Nutrient Intakes for Canadians in all respects, except energy. To satisfy energy requirements, they will need additional foods of their own preference.

A 9-year old girl might have:	A 15-year-old boy might have:
3 servings 2% milk	4 servings 2% milk
2 slices bread	4 slices bread
1 serving cereal	1 serving cereal
2 servings fruits	2 servings fruits
2 servings vegetables	2 servings vegetables
2 servings meat, fish, poultry or alternates	2 servings meat, fish, poultry or alternates

ADULTS

If a person's eating habits remain constant during the adult years, he/she will probably gain weight gradually because the body's metabolic rate slows down by two or three per cent every decade. As well, many people let their activity level drop as they get older.

A person who gains "only" 1 kg (2.2 pounds) a year starting at age 20 will accumulate 20 kg (44 pounds) by age 40. The prevention of obesity is a most important challenge during the adult years. A combination of sensible food selection and physical activity are the answers to weight control.

Although energy requirements decrease with age, an adult's needs for most other nutrients remain unchanged. Therefore, food selection must take into account the nutrient density of foods; that is, the ratio of nutrient to energy content. Wise choices are those foods that contain a high proportion of nutrients compared to energy content. This is possible within the framework of the NWT and **CANADA'S FOOD GUIDE.** In each food group, food choices range in energy content while still supplying nutrients.

As children grow up and leave home, adults often find that they have more time to enjoy relaxing meals. At the same time, they can experiment with new recipes and cooking methods now that they are shopping and preparing meals for just one or two.

OLDER ADULTS

Food choices for older adults are affected by a number of factors. Disability and illness, depression and loneliness, reduced income and possible changes in living environment can lead to inappropriate food practices. A number of problems experienced by this age group - lack of energy, bone fragility, constipation ---- are aggravated by poor food habits. The NWT or CANADA'S FOOD GUIDE also provides a framework for wise food choices for this age group.

Because physical activity may be further reduced in older adults, energy requirements are less. However, nutrient needs do not decrease. Wise food choices for this age group are those of higher nutrient density, namely foods providing nutrients without being high in energy content. A reduction in the use of additional foods and beverages is advisable.

Unfortunately, some older adults let dental problems and rising food costs interfere with their food intake, especially of FRUIT AND VEGETABLES. This can lead to inadequate intakes of vitamin A, vitamin C, thiamin, folacin and fibre. Carefully prepared and cooked fruits and vegetables and juices can provide these nutrients.

Osteoporosis, a condition of decreased bone density and weakened bone structure, is a serious problem, particularly in older women. One probable cause is inadequate calcium and vitamin D intake over a period of years. Continued emphasis on MILK AND MILK SUBSTITUTES is needed in the senior years.

In cases where depression and loneliness are affecting food intake, a change in social environment may be the solution. Sharing meals with friends, participating in community meal programs or simply watching television while eating can make mealtimes more enjoyable.

WEIGHT CONTROL

Obesity is a major problem in Canada and is associated with health problems such as diabetes and heart disease. Obesity results when energy intake exceeds energy expenditure; that is, when a person eats too much or is inactive or both.

At the same time, an increasing number of Canadians are too concerned about their body size. In an effort to lose pounds some are following nutritionally inadequate diets. Others are maintaining body weights too low for optimum health.

Energy intake and energy output are both important parts of the energy balance equation. Both are measured in kilojoules.

1 kilocalorie = 4.184 kilojoules
(1 kilocalorie is what was commonly referred to as a calorie)

Body weight remains constant when energy intake equals energy expenditure. To lose weight, a person needs to increase physical activity, reduce daily.energy intake, or both. In order to gain weight, energy intake must exceed energy expenditure.

Energy Intake: Because the energy content of individual foods within each food group varies greatly, it is possible to select foods either high or low in energy and still enjoy a varied diet within the framework of the NWT and CANADA'S FOOD GUIDE.

People wishing to reduce their energy consumption need to frequently choose foods that are lower in energy, and avoid the foods highest in energy. In addition, they should minimize their use of additional foods and beverages that are not in the FOOD GUIDE. It is especially important to moderate the use of alcohol, fats and sugars for the prevention and control of obesity.

Energy Output: The energy needed to maintain basic functions such as breathing, blood circulation, normal body temperature and growth depends upon fixed factors such as age, sex, body build and physiological state. People can do little about these basic needs; however, they can decide to increase their energy needs for physical activity.

Physical activity includes work activity, both on and off the job, and leisure activity. The degree of activity a person does depends on major decisions such as choice of profession (a lumberjack usually has more opportunities for vigorous exercise than a bus driver), and choice of recreational activities (it requires less energy to play cards than it does to crosscountry ski).

Energy expenditure hinges on a multitude of day-to-day choices, whether to walk to the local store or take the car; use the stairs or the elevator; rake the leaves oneself or hire a neighbourhood youngster to do it; go out for a bicycle ride after supper or watch a TV show. How physically active a person's life is depends as much on attitude as it does on opportunity.

Exercise is an excellent way to alter energy output to match or exceed intake.

Regular exercise has additional benefits. The physically active person has better cardiovascular fitness, decreased fatigue, increased stamina and firmer muscles. Also, an active person can enjoy that feeling of well-being not always experienced by a sedentary person.

Even the person wishing to gain weight requires regular but not excessive exercise. It will help in maintaining a normal appetite and in ensuring that weight gain is muscle tissue, not just fat.

Energy Adjustments; There are tables suggesting ideal weight for height, but usually the mirror test is all that is needed. An honest evaluation of body appearance, without clothes, using a full-length mirror will tell a person whether there is too much or too little body fat. A gradual weight loss or gain of 0.5 to 1 kg (1 to 2 pounds) per week is advisable, with a realistic short-term goal of 3 to 5 kg (6 to 10 pounds) over a period of a month.

Fad Diets: Any diet which omits one or more food groups or concentrates on just a few selections is dangerous to health. Weight loss achieved on such diets is frequently temporary, either because the person returns to previous food habits or because the weight loss is largely loss of fluids.

Books, magazines and weight-loss clubs sometimes seem to offer easy answers. The best way to assess any diet is to compare it with CANADA'S FOOD GUIDE.

NUTRITION PROBLEMS
WITH WHICH STUDENTS MAY BE FAMILIAR

Problem	Cause	Brief Description
anemia	diet low in iron or the inability to use iron	mainly seen in girls, women of menstruating age or pregnant women
anorexia nervosa	loss of one's appetite due to extreme anxiety or seeing oneself as too fat	- malnutrition results - mainly seen in teenage girls - seek medical attention
bulimia	extreme anxiety	- extreme binge eating, followed by self-induced vomiting or prolonged overuse of laxatives to purge the body - seek medical attention
diabetes	genetic and/or environmental predisposition; possible virus	- inability to make or utilize insulin to break down blood sugar - a controlled diet and/or insulin injections may be necessary
hypertension	- overweight - too much salt in diet - smoking - family history - lifestyle	- blood vessels narrow causing the heart to beat harder - over time, the extra pressure can cause heart and blood vessel damage
malnutrition	- poor or inadequate diet - some medical factors	- body requires foods from the four food groups every day - the body, through disease may lose the ability to utilize certain foods
obesity	- energy consumed by the body is more than the energy required for activity - many contributing factors; poor diet, lack of regular exercise, heredity, lifestyle	- may affect physical and mental health - associated with increase in incidence of diabetes and heart disease - mental problems due to poor body image - 15% or more over optimum weight
overweight	same as obesity	- not as severe as obesity - 10% over optimum weight

GRADE 7

DENTAL HEALTH

DENTAL HEALTH

GRADE: 7 LESSON: 1 THEME: : FACTORS AFFECTING DENTAL HEALTH

CONCEPT: THERE ARE A VARIETY OF DENTAL EMERGENCIES WHICH REQUIRE APPROPRIATE FIRST AID TREATMENT

PREPARATION:
1 Materials for bird books or posters
2 Prepare a card for each dental emergency for Student Activity 2
3 Props such as a telephone, ice, scarf, etc for role playing in Student Activity 4

VOCABULARY: fracture, treatment, cold compress, orthodontic, immobilize, debris, embedded, irritation, appliance

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
Students will be able to:	Students:	Background Information Page -
i) describe a variety of dental emergencies and the appropriate first aid treatments	1 Brainstorm a variety of dental emergencies that may occur.	Examples include knocked-out tooth, bitten tongue or lip, broken tooth, toothache, possible fractured jaw, object stuck between teeth.
	2 Discuss appropriate first aid treatments for various dental emergencies.	Develop an experience chart as shown.

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES

Emergency	**Treatment**
knocked-out tooth 	- rinse the tooth, do not scrub it - place tooth in a container of milk or water - take the tooth and the patient to the dental health worker ***immediately*** if possible (It ***may*** be successfully replanted if acted upon quickly)
bitten tongue or lip 	- put direct pressure on the bleeding area with a clean cloth - use cold compresses to prevent or reduce swelling - go to hospital or community health centre if bleeding continues
possible jaw fracture 	- immobilize jaw using a scarf or towel - use cold compresses to prevent and reduce swelling - call dental health worker immediately and go to hospital or community health centre

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
		broken tooth  - gently rinse area with warm water - use cold compresses on outside of cheek if swelling occurs - go to dental health worker immediately if possible orthodontic problems  - if a wire causes irritation, cover end of wire with wax or cotton - if wire is embedded in cheek, gum or tongue, do not attempt to remove - go to dental health worker or nurse immediately - if appliance becomes loose or breaks, take it to the dental health worker immediately toothache  - remove debris around tooth by rinsing with warm water and flossing either side of tooth - place cold compresses on outside of cheek if swelling occurs - do not use heat - see dental health worker as soon as possible

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
		object wedged between teeth  - try to remove object with dental floss - do not try to remove object by snapping floss between teeth or using sharp or pointed instruments - go to dental health worker if flossing does not remove object
	3 illustrate appropriate first aid for a specific dental emergency.	Have each student prepare one page for a big book illustrating appropriate first aid for a specific dental emergency. Place books at dental clinic or community health centre to be used as a teaching aid for younger children.  Alternatively, have students prepare a series of posters for display at the clinic or community health centre
	4 Role play appropriate first aid for various dental emergencies.	Prepare a card outlining each of the dental emergencies listed in Student Activity 2. Have students work in pairs to role play appropriate first aid treatments while other students attempt to guess the situation being acted out.

DENTAL HEALTH

GRADE: 7 LESSON: 2 THEME: DENTAL DISEASE

CONCEPT: DENTAL HEALTH PROBLEMS OF CHILDREN AND YOUTH ARE TREATABLE AND PREVENTABLE

PREPARATION: 1 Prior to class invite a dental health worker to discuss common dental health problems of children and youth
2 Chart paper and felt markers
3 Prepare a class set of Nursing Bottle Mouth Pamphlet (Activity Sheet D53A, D53B)

VOCABULARY: consequences, nursing bottle mouth, prevention, treatment, prolonged, frequent, reserve, pacifier

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
Students will be able to: i) describe common dental health problems of children and youth	Students: 1 Identify common dental health problems of children and youth, their causes, prevention and treatment.	Background Information Page DH28 to 29 This is a review of Grade 6, Lessons 3 and 4. Prior to class invite a dental health worker to discuss the causes, prevention and treatment of common dental health problems of children and youth. Include: - tooth decay - gum disease - orthodontic problems Ask the dental health worker to bring slides or videos, if possible.

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
	2 Write a poem about a common dental health problem.	The poem should identify causes and prevention of the dental health problem. For example: An unfortunate girl from Clyde River The dentist she visited never She ate lots of junk And brushed once a month. This really wasn't too clever. One day when she smiled at the mirror The message she got was quite clear Now she flosses each day, Sees the dentist O.K., And smiles at herself without fear. - Barbara Hall
ii) describe causes, characteristics, consequences, treatment and prevention of nursing bottle mouth	3 Define and discuss causes, prevention, treatment and consequences of nursing bottle mouth.	Refer to Activity Sheets D53A and D53B. Have students read the brochure on nursing bottle mouth. Then have small groups each develop an experience chart such as the following.

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES

Nursing Bottle Mouth

Causes	Prevention	Treatment	Conse-quences
Putting baby to bed with a bottle contain-ing milk, formula, juice, sweetened tea, etc Letting the baby suck on sweetened drinks too long, or too often Bottle propping	Parent educa-tion is the key Give only a bottle of water during naps or at bedtime once teeth have erupted Use a pacifier instead of a bottle Feed baby before bed or naptime and remove bottle	Fillings Tooth removal Caps	Decayed or lost baby teeth Possible problems with spacing of permanent teeth if baby teeth are lost Inability to eat/chew some foods Poor speech, inability to make certain sounds such as th, l and s

Have 2 groups work together to check for accuracy and completeness of information

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
	4 Participate in a public education campaign to prevent nursing bottle mouth.	Brainstorm with students ways that they could teach others about the causes, prevention and consequences of nursing bottle mouth. Allow each student or small groups of students to choose an assignment, based on the ideas brainstormed. For example: - identifying and talking to parents of young babies - preparing an information message for the local radio station - developing a brochure - talking to parents at prenatal or well baby clinics

NURSING BOTTLE MOUTH PAMPHLET
Side 1

D53A

John's story

Rachel took her son, John, to the dental clinic after one of his front teeth broke off at the gum line. The dental health worker told Rachel that the tooth was so soft that John could have broken it eating spaghetti. After examining the rest of John stop teeth the dental health worker told Rachel that John had a severe case of nursing bottle mouth. She decided to remove the other front tooth, put caps on four teeth, and fillings in the rest. This was the mouth of a 19 month old child.

What is nursing bottle mouth?

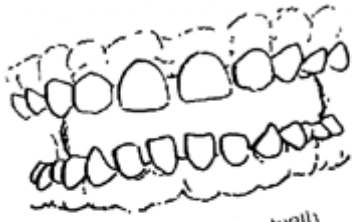
Nursing bottle mouth is tooth decay caused by prolonged, frequent sucking on a baby bottle containing

- formula
- juice
- sweetened tea
- milk
- any beverage except water

Any liquid except water contains sugar, and even natural" sugars such as those found in unsweetened fruit juice can cause tooth decay

Nursing bottle mouth is usually the result of letting a baby fall asleep with a bottle in his mouth While he sleeps the upper front teeth are bathed in liquid If this liquid is anything other than water, the sugar in the liquid

combines with bacteria in the mouth to form acid This acid attacks tooth enamel After many acid attacks, tooth decay can occur



Healthy baby teeth

Moderate decay

Severe decay

Is there any treatment for nursing bottle mouth?

Once teeth are decayed, they cannot be restored to their original healthy condition. Dental health workers can only remove teeth, cap them or fill them, depending upon how far advanced the tooth decay process is

Some dentists believe that nursing bottle mouth is the most serious dental problem in the N W T It is much more common in the N W T than in southern Canada

What are the long term effects of nursing bottle mouth?

Nursing bottle mouth does not affect the health of the permanent teeth However, if baby teeth are missing they cannot reserve the proper spaces for adult teeth They may then grow in crooked or overcrowded and may even have to be removed if they are too far out of place Overcrowded teeth are more prone to tooth decay because they are harder to clean

Children with teeth missing may have difficulty chewing some foods Also they may not be able to say certain words which depend on the teeth for proper pronunciation. These are words containing the sounds "th", "s" and "l".

Directions: Photocopy D53A and D53B using double sided copying Then cut and fold along the dotted line to make a pamphlet.

NURSING BOTTLE MOUTH PAMPHLET
Side 2

D53B

How can nursing bottle mouth be prevented?

The key is parent education so that parents:

raise their baby's head when sucking on a bottle so the liquid clears the mouth quickly,

use a baby bottle only for feeding, not as a pacifier, and remove the bottle as soon as the feeding is over;

do not let their baby fall asleep with a bottle containing milk, formula, juices or other sweetened liquids;

give their baby bottles of water, or pacifiers at bed time, if the baby needs to suck in order to fall asleep;

give their baby vitamins which contain fluoride (if the community does not have fluoridated water);

start to clean their baby's teeth as soon as they appear:

start dental visits before age two.

Most children start out in life with strong, healthy teeth.

Help them stay that way!

Nursing Bottle Mouth

GRADE 7

TEACHER BACKGROUND INFORMATION

DENTAL HEALTH

DENTAL DECAY

The strange thing about dental decay is that it is so prevalent when so much is known about its causes and prevention.

There is no doubt that dental decay is a bacterial disease and is specifically related to the activity of dental or bacterial plaque which forms on teeth. If the teeth are thoroughly cleaned, this bacterial film or plaque will reform within 24-36 hours. The plaque progressively thickens if left undisturbed for several days, and in some areas of the mouth may become covered by food debris. Much of this food debris can be removed by rigorous mouth rinsing with water, but the plaque itself is only removed by brushing and flossing. The particularly damaging property of dental plaque is the ability of the bacteria to thrive on dietary sugar and to rapidly produce acids which can dissolve the tooth material.

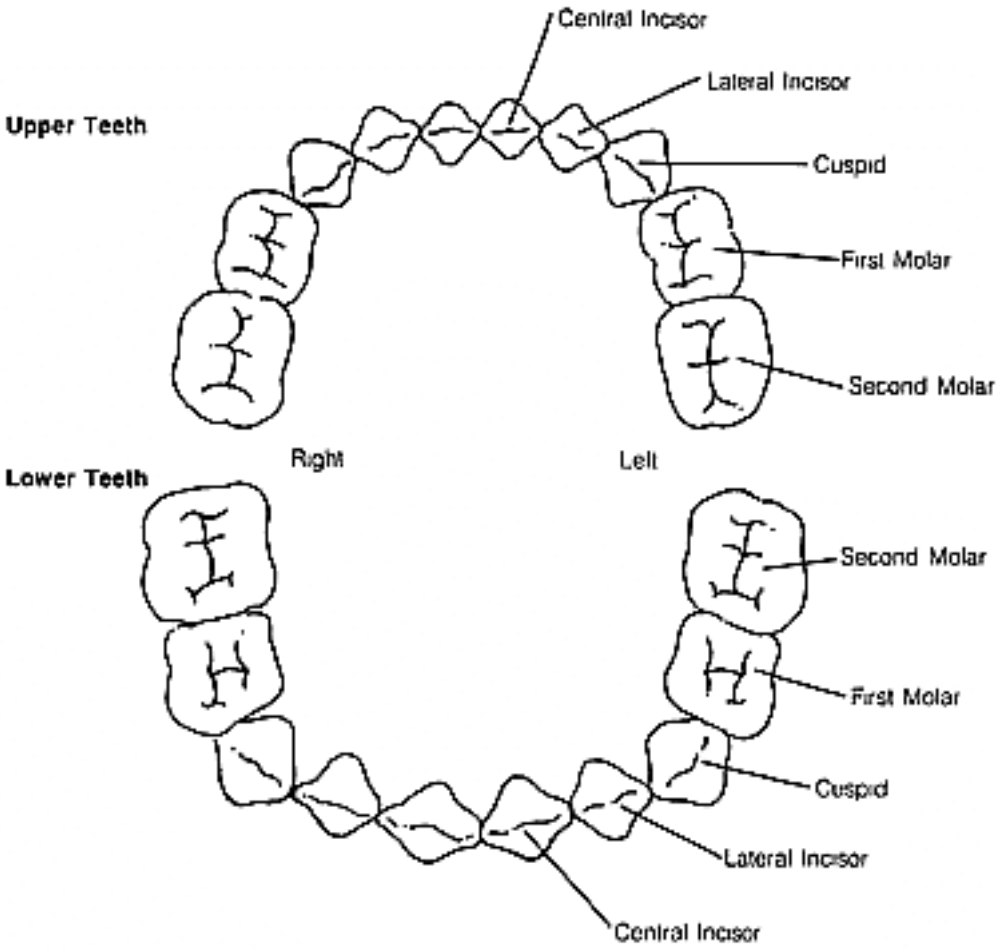
It is apparent that diet is an important factor in decay. The typical Canadian diet is high in refined carbohydrates, and is highly conducive to dental decay. Sticky candies or confections which adhere to the teeth or hard candies which are kept in the mouth for long periods of time are particularly damaging since they provide sugar to the plaque, and hence destructive acids, for a prolonged period of time. It is the food remaining in the mouth that is important to plaque activity. Hence, regular and thorough removal of food and plaque could theoretically eliminate the decay producing activity of the diet In reality, it would be dangerous to rely completely on oral hygiene for the prevention of dental decay.

The role of heredity in dental disease is not well understood. Despite seemingly inherited bad gums or proneness to decay, personal neglect and poor quality dentistry are leading causes of poor teeth. Experience does indicate that some mouths are more prone to decay than others, but not because of so-called soft teeth. People who believe they have soft teeth often despair of their chances to keep their teeth. This despair is often associated with poor oral hygiene, dental neglect, faulty nutrition, or experience with poor-quality dentistry. With good home care, regular dental visits and the conscientious application of the principles of modern dentistry, most people should be able to enjoy a healthy mouth and retain their teeth for their lifetime.

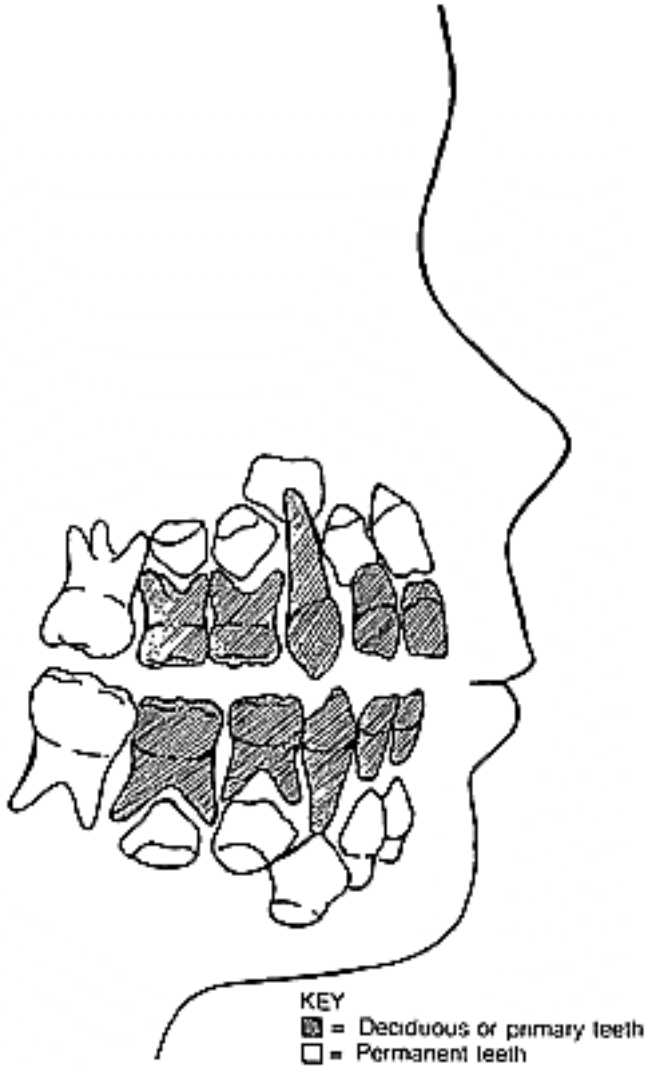
Good oral hygiene (proper brushing after each meal and brushing and flossing prior to going to bed) is difficult enough for adults to establish, for children, it is doubly difficult. Not only do young children lack the dexterity to brush and floss their teeth properly, but the benefits of such skills would be considerably reduced in the typical young "continuous eater". Parents should not only assist their young children in the brushing technique and floss their children's teeth up to about age 8, but should strive to keep the snack habit to the minimum, particularly of foods and drinks containing sugar In lunches or at snack time children should not be given hard or sticky treats such as lollipops or toffee having sugar that remains in the saliva for a long time.

Adapted from `Dental Health A Teacher's Guide K-12,' Health and Welfare Canada

PRIMARY (BABY) TEETH

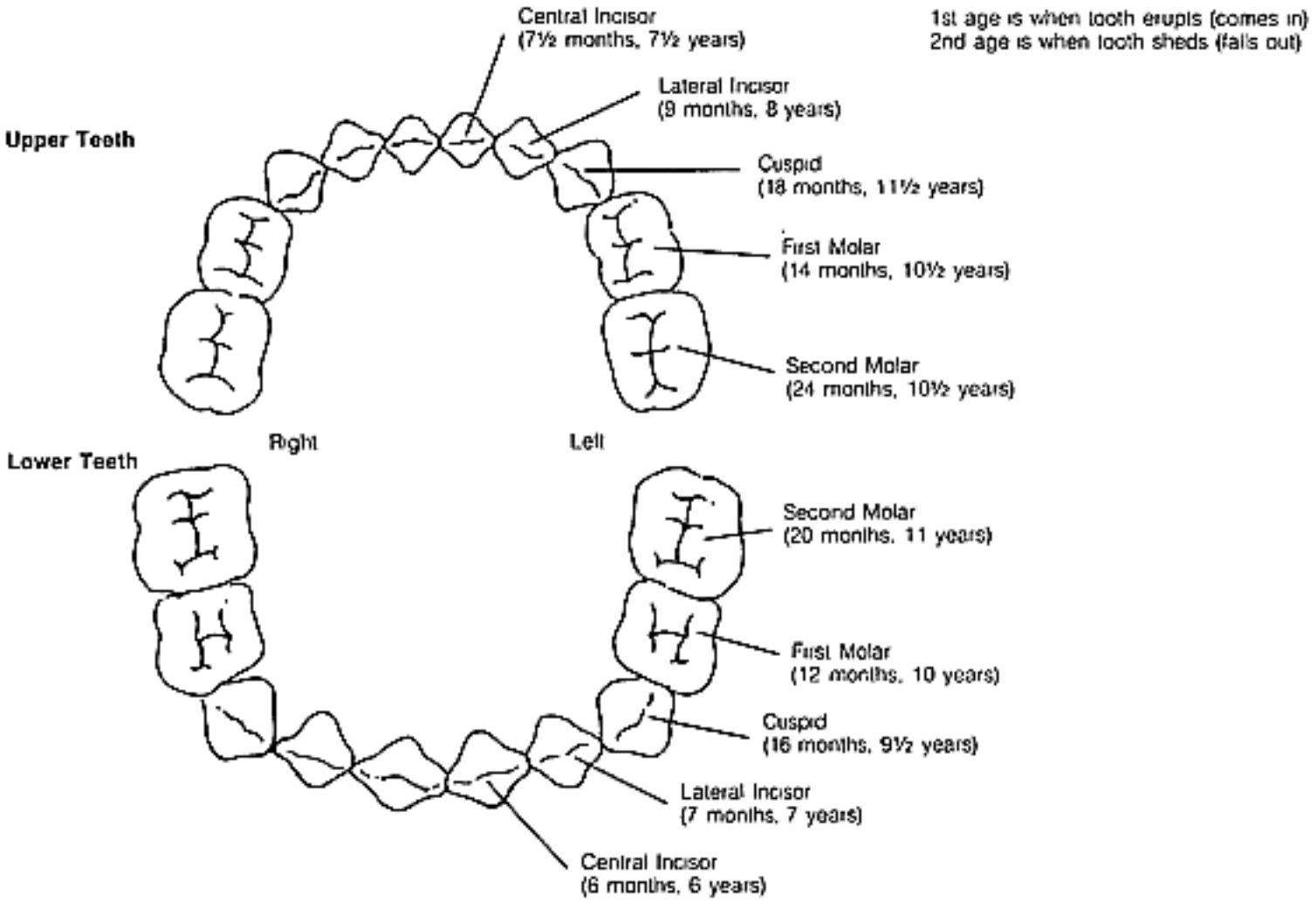


LOCATION OF TEETH AT 6 YEARS OF AGE



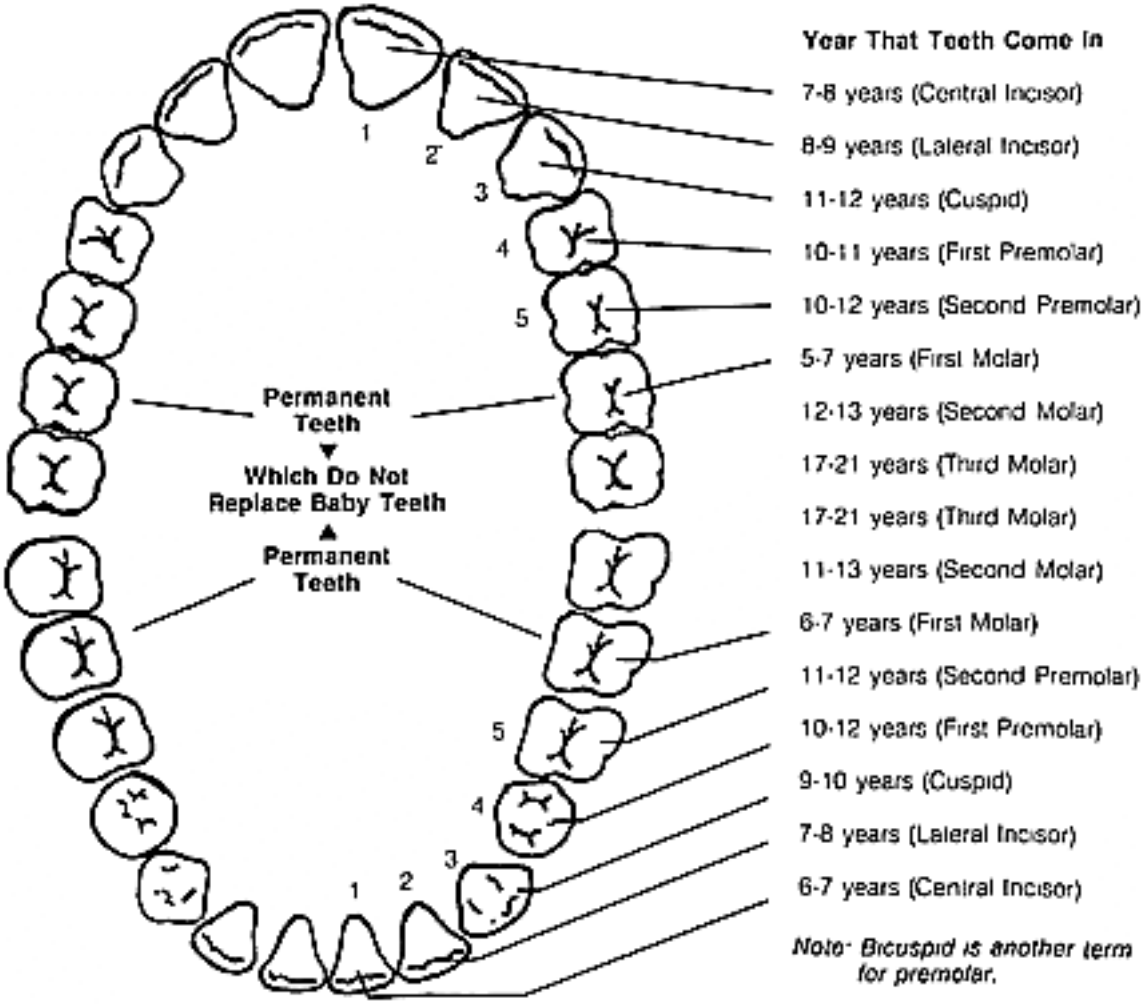
AGE SCHEDULE FOR PRIMARY TEETH

PRIMARY (BABY) TEETH



AGE SCHEDULE FOR PERMANENT TEETH

(Teeth numbered 1 to 5 replace baby teeth)



TOOTHBRUSHING - REMOVAL OF PLAQUE

How to Brush

Toothbrushing disrupts and removes plaque from the inner, outer and top surfaces of the teeth.

Place the toothbrush inside the mouth with the bristles along the upper last two teeth pointing at a 450 angle toward the gum line. This ensures that the bristles cover both teeth and gum surfaces

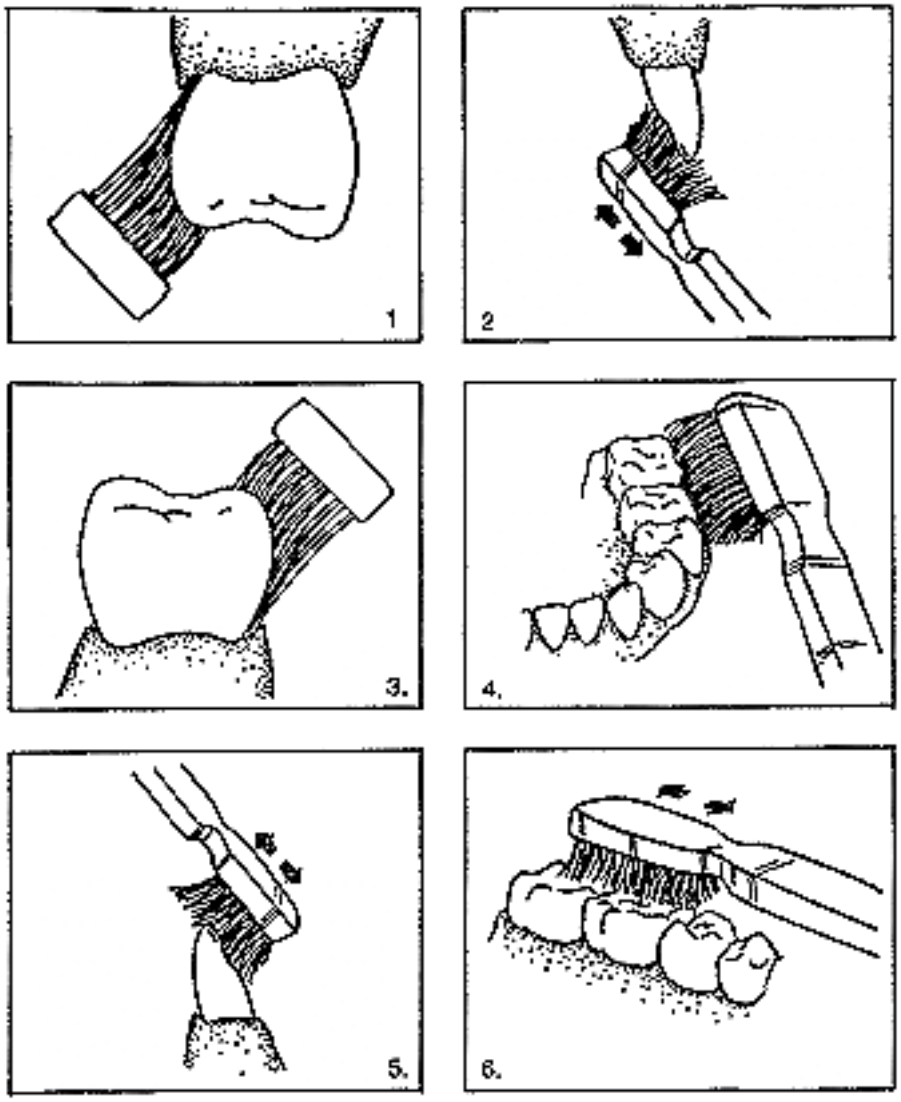
Vibrate the brush m a slight back and forth or circular motion directing gentle pressure towards the gums This movement keeps the brush alongside the same two teeth and allows some of the bristles to clean the surfaces under the edge of the gums Do not scrub

Count to ten and then, move to the next group of teeth

All inside and outside surfaces of teeth are cleaned in this way. The top surfaces of the back teeth are cleaned with a back and forth motion the bristles directly on top of the teeth

To ensure all surfaces are brushed, the same circuit is followed every time

This is where toothbrushing should begin.



1. Position of brush for brushing upper inside back teeth

2. Position of brush for brushing outside upper front teeth.

3. Position of brush for brushing lower inside back teeth

4. Position of brush for brushing lower outside middle teeth

5. Position of brush showing brushing of lower outside front teeth.

6. Position of brush showing brushing of top surface of back teeth.

From: CDA, "Do It Yourself Oral Hygiene", 1981

A BASIC TECHNIQUE FOR DAILY PLAQUE REMOVAL

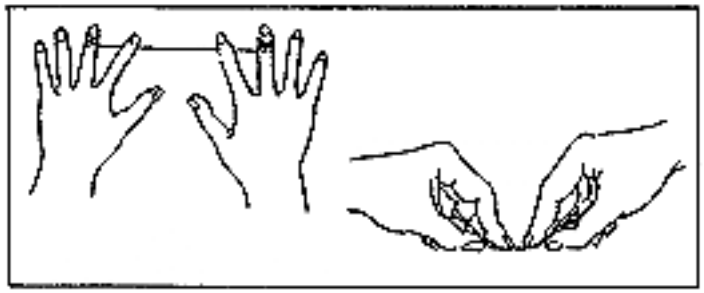
Flossing - Removal of Plaque

How to Floss

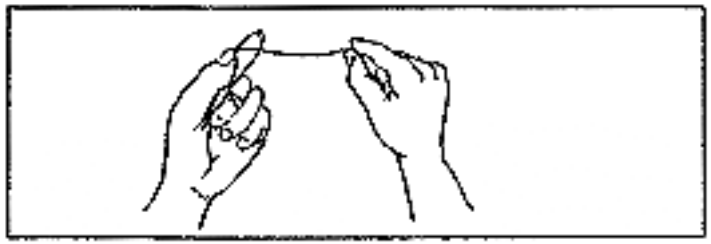
Flossing disrupts and removes plaque between the teeth and under the edges of the gums

To floss properly, use about 46 cm of dental floss Wind most of the floss around the middle finger of one hand and the rest around the middle finger of the other hand. This leaves about 8 cm free

The free part of the floss is grasped with the thumbs and 1st fingers of each hand leaving about 2.5 cm as the 'working portion' of the floss



When flossing lower teeth the floss is guided mainly by the 1st finger of each hand

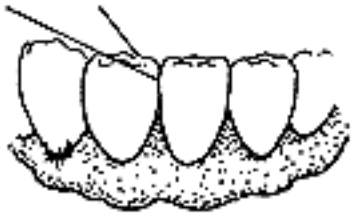


For upper teeth exert pressure with the thumb of one hand and the forefinger of the other hand.

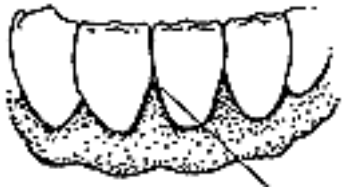
A gentle sawing motion is used to insert the floss between teeth. Curve the floss into a C-shape around the surface of one tooth and gently work the floss under the gums until a slight resistance is felt.

Holding the floss against the tooth to a C-shape, move the floss up and down several times.

Clearly, shows the "c" shape that is necessary to attain



(When all the plaque has been removed, the floss rubbing against the tooth often makes a 'squeaky-clean' sound)

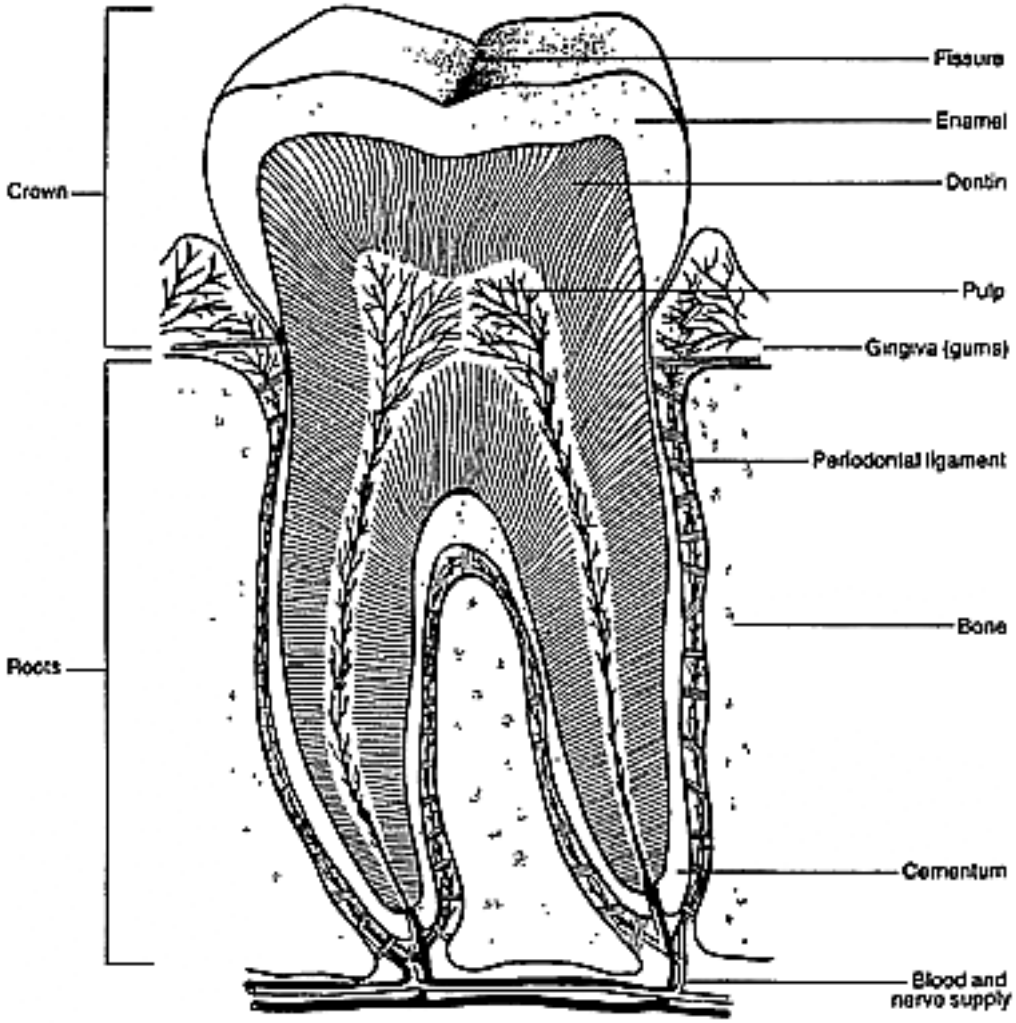


Repeat the procedure on the adjacent tooth surface at the same site.

This method is repeated on the remaining teeth starting on the upper right teeth and ending on the lower left teeth.

From CDA, "Do If Yourself Oral Hygiene", 1981

THE STRUCTURE OF A TOOTH



A tooth consists of two anatomical parts

***Crown**:* usually appears above the gums and shows in the mouth

Root: anchors the tooth in the bony socket of the jawbone and is ordinarily not visible

Structures of the crown:

***Enamel**:* the hard, glistening substance that forms the outer layer of the crown

Dentin: an ivory-like substance under the enamel, which forms the body of the tooth

Pulp Cavity: the hollow space in the centre of the tooth which contains nerves and blood vessels

Structures of the root:

***Cementum**:* a thin layer of bone-like tissue covering the root.

Dentin: an ivory-like substance located under the cementum

Pulp canal: an inner cavity containing nerves and blood vessels, an extension of the pulp cavity to the tip of the root

Surrounding tissues:

***Periodontal ligament**:* fastens the root of the tooth to the jawbone It acts as a shock absorber as the teeth come together in the chewing process

***Gingiva (gums)**:* soft tissue that immediately surrounds the teeth and the bone.

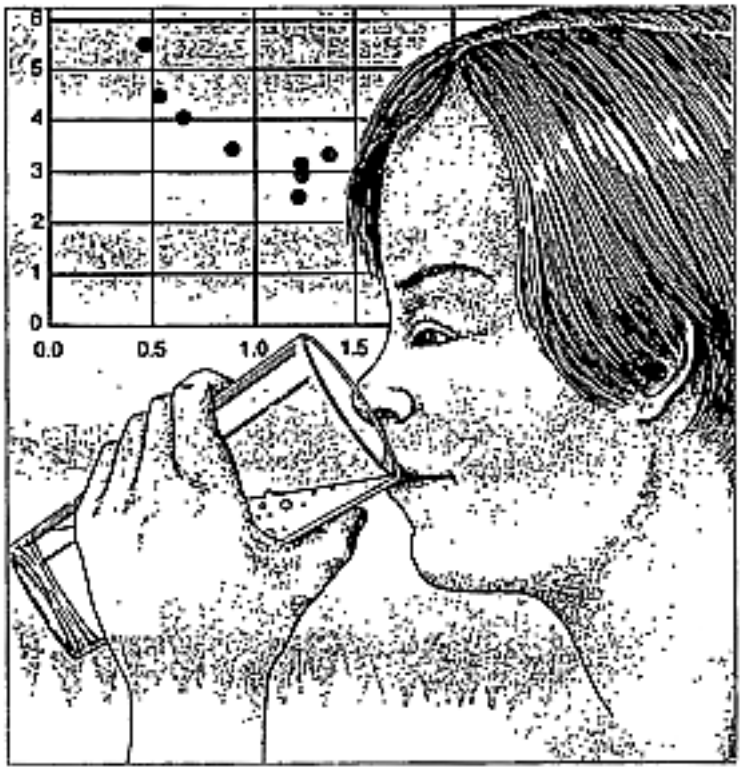
***Jawbone**:* the bone surrounding and supporting the roots of the teeth

WATER FLUORIDATION IN THE NORTHWEST TERRITORIES

Many residents of the Northwest Territories suffer from tooth decay. The rate of tooth decay in the N W.T is almost four times greater than in southern Canada

Tooth decay is unusually high among native people, particularly children. The high rate of tooth decay results, in part, from the change of a high protein traditional diet to processed food and a high carbohydrate diet.

Water fluoridation, along with good nutrition, proper dental care and good dental hygiene practices, is an excellent way of reducing tooth decay.



What is fluoride?

Fluoride is a natural chemical which is produced by combining the natural element fluorine with other elements.

Low levels of fluoride are found naturally in most community water supplies It also is found in some foods including spinach, fish and other seafoods. Tea also contains high levels of fluoride.

What does it do?

Fluoride prevents tooth decay by strengthening enamel during tooth formation and fighting tooth decay in formed teeth.

Studies conducted in North American cities over the past 20 years show that children raised in communities where fluoride has been added to the water, have 40% - 60% fewer cavities than children raised elsewhere.

Fluoride helps children grow stronger teeth Adults who consume fluoride tend to keep their own teeth longer. It also strengthens bones and reduces bone fragility disease in elderly people.

The effects of fluorides can however be overwhelmed by the frequent consumption of foods and drinks containing sugar especially soft, sticky types of foods. Regular brushing of the teeth with a fluoride-containing toothpaste has the potential to reduce the incidence of dental decay.

What is water fluoridation?

Water fluoridation is the process of adding fluoride to water supplies.
Fluoride does not change the taste of water.

Adding fluoride to drinking water usually does not cause health problems. However, high doses of fluoride taken while teeth are forming can permanently change the colour and texture of the teeth. The addition of fluoride to drinking water is controlled so high doses are not added. (The range of effective water fluoridation is between 7 and 1 2 parts per million.)

The method of adding fluoride to water supplies is determined by water supply and distribution systems. It is easier to add fluoride to water in treatment plants that serve piped water distribution systems. This method

is used in the Yellowknife, Inuvk, Iqaluit and Fort Smith water treatment plants.

It is more difficult to safely fluoridate community water supplies in communities served by trucked water distribution systems. Safe and properly controlled fluoridation is possible only where reservoirs designed for year round storage are used. Skilled personnel can add fluoride while the reservoir is being filled.

Water fluoridation generally is not recommended m communities with small water storage facilities or communities with no storage facilities as proper mixing and dilution of the fluoride may not be consistently achieved.

Fluorides have the effect of rendering the teeth less soluble (but not insoluble) in the acids derived from the action of certain oral bacteria on sugar. Teeth which have been completely formed under the influence of an adequate amount of fluoride are much more resistant to the initiation of dental decay and to its rate of progress.

Other alternatives

To be effective against dental decay, fluoride must be provided on a daily basis over the entire period of tooth formation - from birth to about age 14.

Fluoride added to milk has produced modest reductions in tooth decay. However, its effectiveness is limited because.

- there are wide variations in the amount of milk people drink
- some families may not be able to afford a lot of milk
- teenagers often do not drink much milk

Fluoride tablets and drops are effective when used on a daily basis for the first 14 or more years of life. However, when such programs have been instituted in Canada and the United States, users tended to "get lazy" after a year or two and stop taking the tablets or drops.

Fluoride treatment of teeth by a dental health worker, and the daily use of fluoride toothpaste or mouthwash combined with proper brushing and flossing are recommended for individuals who live in communities which do not have fluoridated water supplies.

For more information on fluorides and fluoridated water systems, contact:

Community Works and Capital Planning
Municipal and Community Affairs
Government of the Northwest Territories
Yellowknife, N W T
X 1 A 2L9
Telephone (403) 873-7644

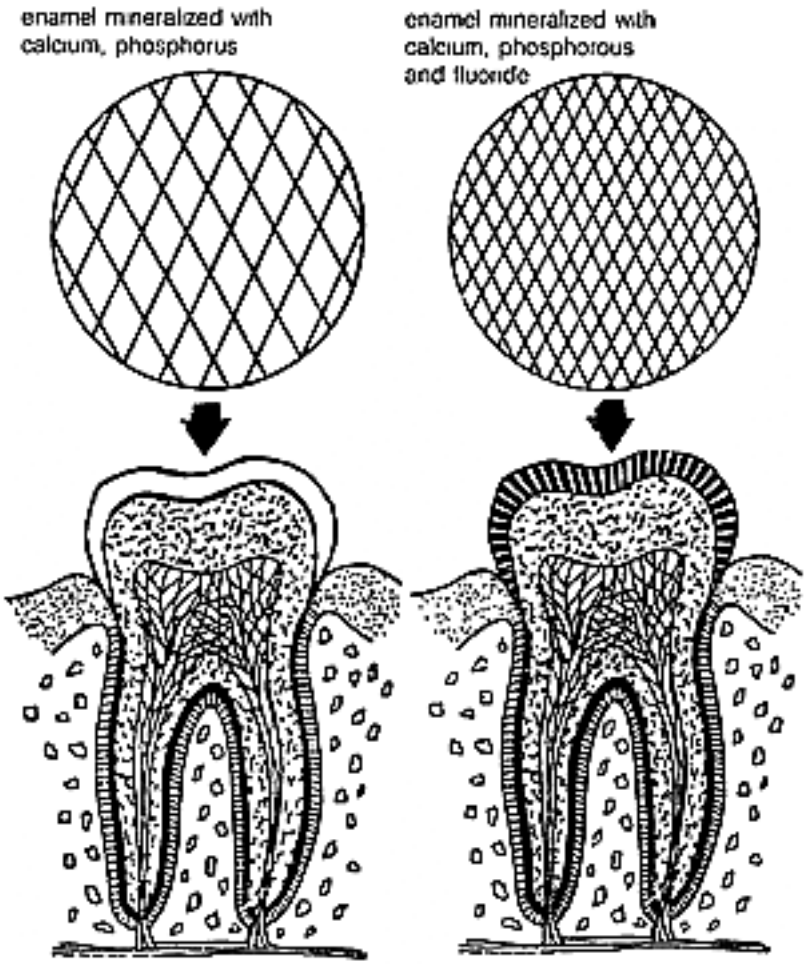
Fluorides in the form of water fluoridation, a good diet with sugar consumption kept to a minimum, especially for between-meal snacks, brushing and flossing thoroughly each day and brushing after meals if possible (fluoride toothpaste) will prevent most dental decay and gum disease. These four preventive measures constitute a dental health program that can be carried out by the individual at a very low cost. Prevention of dental disease is relatively inexpensive but neglect is costly.

Reprinted from `Water Fluoridation in the Northwest Territories', N. W. T. Municipal and Corporate Affairs, May 1988, and Fact Favour Fluoridation, Canadian Dental Association, 1979.

ROLES OF FLUORIDES

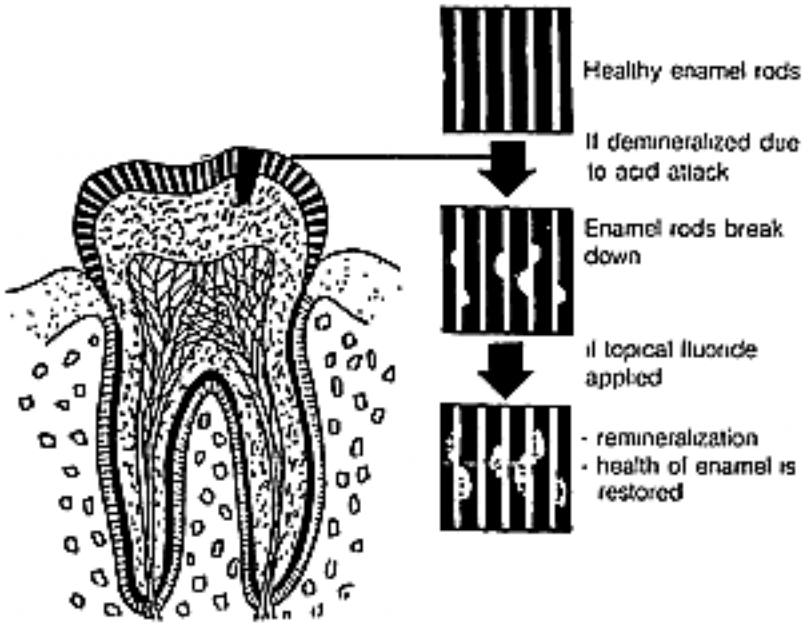
Systemic Fluoride

- ingested fluoride is deposited into developing teeth
- makes the enamel and dentin crystals harder and more densely packed
- leads to more decay resistant tissue
- most beneficial means of preventing tooth decay



Topical Fluoride

- applied fluoride provides benefits to the surface layer of enamel
- strengthens enamel rods (remineralization)



FLUORIDE PRODUCTS

There are many ways to ensure adequate levels of fluoride necessary to strengthen teeth and "fight cavities" Products containing fluoride are approved by the Canadian Dental Association and bear the C.D.A. Seal.

Systemic Fluoride Treatments

- drinking fluoridated water
- fluoride tablets (e.g. Peditabs)
- fluoride drops (e g Pedidrops)
- baby vitamins with fluoride (e.g. Fluor-vi-sol)

Residents of communities with fluoridated drinking water do not need other systemic fluoride treatments.

Topical Fluoride Treatments

a) professional treatments by a dental health worker

b) self treatments
- fluoride rinses (e.g. Fluorinse by Oral B)
- mouthwashes with fluoride (e.g. Listermint)
- fluoride gels

DENTAL HYGIENE AIDS

There are many products designed to clean the surfaces of the teeth as well as the area between the teeth and under the gum lines In addition to the toothbrush these include

Dental floss
- unwaxed
- waxed
- flavoured

Dental tape
- used to clean spaces between widely spaced teeth

Super floss
- a special floss designed to clean under bridgework

Stimudents
- an interdental cleaner, similar to a toothpick

Proxabrush
- a small brush used to clean between widely spaced teeth

Water pik
- an irrigation device which can remove debris from around the teeth, gums, braces and other dental appliances

Most dental health products other than a soft bristle toothbrush, fluoridated toothpaste and dental floss, should only be used following recommendation and instruction from a dental health professional

EFFECTS OF TOBACCO

The tar in tobacco stains the teeth with an unattractive dark brown to black stain Meticulous cleaning will help to keep accumulations to a minimum Nevertheless, it may be necessary to have the stains removed regularly at a dental office A distinctive unpleasant mouth odour and taste develop with heavy smoking

The use of tobacco also causes a reduction in the sense of taste.

Prevention of Cancer of the Mouth

Tumours and other growths occur in both the soft and hard parts of the mouth more frequently than is generally recognized Not all of them are malignant, many of them are benign Nevertheless, these conditions should be of concern until diagnosed otherwise

Cancer of the mouth and pharynx (back of the throat) accounted for 591 of the 21,008 male cancer deaths in 1978 Among females 206 of the 16,490 cancer deaths were caused by cancer of the mouth and pharynx The higher male risk is obvious

Dentists and other dental health workers look for tumours and growths when they are examining the mouth. Other conditions in the head and neck region may also be found during the dental examination. Early detection of such abnormalities can save lives.

Although cancer is more frequent in those of mature years, no age group is immune. Cancer occurs in many forms in the mouth, with differing degrees of malignancy. The lips, mainly the lower lip, the tongue, gums, cheeks and bones of both upper and lower jaws may all develop cancerous growths.

Pain is not usually an early symptom. The following abnormalities of either the soft or the hard parts of the mouth should be examined by a dentist or physician at once.

- any swelling or hardness, however small, recently found, which is increasing in size.
- any sore spot, roughening or whitish discolourization which does not heal within two weeks.

It is better to take steps to prevent cancer from occurring than to rely on discovery and treatment after it appears. Probably the most important lesson about mouth cancer that young people can learn is that persons who drink heavily or smoke are at a greater risk of acquiring the condition. It appears also that smoking and alcohol use interact. The risk of mouth cancer among persons who both drink and smoke is greater than can be attributed to the independent effects of smoking and alcohol use. A similar relationship between smoking and drinking alcohol is found for cancers of the larynx (voice-box) and esophagus (gullet). It seems, therefore, that all tissues lining the upper respiratory and digestive systems, which can be most readily exposed to tobacco and alcohol, are susceptible to their effects.

Pipe, cigar and cigarette smoking are of similar importance in the development of cancers of these tissues. This is somewhat different from the situation for the lungs where cigarette smoking is a greater risk than pipe and cigar smoking. Use of chewing tobacco has also been found to be associated with mouth cancer. As would be expected, the risk of developing mouth cancer increases with the amount used.

Chronic irritation due to dental neglect, resulting in badly decayed, broken-down teeth and in open root abscesses and infections of the gums, may also be important.

Periodic dental examinations and regular dental care will reduce the risk of oral cancer by eliminating or reducing sources of chronic irritations of the mouth tissues. In addition to the possible saving of lives, the early treatment of tumours of either soft or hard parts of the mouth will reduce the possibility of disfigurement.

The potential for preventing mouth and other cancers is of paramount importance. The most effective preventive method is the avoidance of tobacco products, including second hand smoke.

DENTAL HEALTH WORKERS

Dental Assistant

The Dental Assistant aids the Dentist m providing care for the patient.

Duties of the Dental Assistant vary with the dental practice and may include:

- preparing the patients for dental treatment, - taking x-rays;
- assisting the Dentist at chairside;
- simple cleaning of teeth in small children;
- clerical and receptionist duties, such as making appointments for patients, filing charts, etc.

Location
Most Dentists in practice employ a Dental Assistant.

Education
There are two programs offered at some community colleges:
(Both suggest grade 12 education.)
1. One year program at the college
2. 18 month Independent Correspondence Course for those having experience as a Dental Assistant .

Dental Assistants may be trained to a dental office but must sit examinations to be registered. Registration is not compulsory in most provinces and territories but is a great asset.

Dental Hygienist

The Dental Hygienist is primarily concerned with prevention of dental problems through education. The Hygienist's duties include:

- examining and charting the condition of mouth and teeth;
- taking x-rays of teeth;
- cleaning teeth;
- applying materials to teeth to prevent cavities;
- teaching adults and children how to take care of teeth and the importance of eating healthy food.

Location
In the north, the Dental Hygienist works in Dentists' offices. In some areas the Hygienist works for health centres or hospitals.

Education
Grade 12, Senior Matriculation with chemistry. Two year course at a university leading to a diploma in Dental Hygiene. Certain community/ vocational colleges offer programs in Dental Hygiene.

Dental Therapist

Dental Therapy, an exciting new career, provides dental care to those living in remote areas of Canada, particularly in the Canadian North, and native people on reserves. Dental therapists follow treatment prescribed by a supervisor dentist who visits the therapist regularly. The dentist examines patients and writes treatment plans which outline the specific work procedures to be completed after the dentist has gone.

This work includes:

- giving local anaesthetics;
- preparing teeth for and placing routine fillings in teeth;
- performing uncomplicated extractions of deciduous (baby) and permanent teeth;
- scaling (cleaning) teeth;
- taking and developing x-rays;
- conducting preventive dental health programs which include
  - supervised brushing,
  - topical fluoride application,
  - classroom teaching

Location
Dental therapists are employed by the Regional Health Boards of the N.W.T. to work in communities in the Northwest Territories. The work usually involves travel to many communities on a regular basis.

Education
Grade 12 with biology, or mature students who can demonstrate equivalent training may also be considered. Reading comprehension, writing and speaking skills are important. Two year Dental Therapy course at the School of Dental Therapy.

Dentist

The primary concern of the Dentist is to help people keep healthy teeth. They do this through treating problems of the teeth and mouth, and emphasizing prevention of dental problems. A healthy mouth and teeth are essential factors in achieving good general health.

Some of the duties of the Dentist include:

- filling, cleaning, extracting and replacing teeth,
- treatment of the gums and roots of the teeth,
- surgery of the mouth,
- straightening teeth,
- care of children's teeth;
- promoting dental health through education

Location
In the north, Dentists work in private practice or work for the Government travelling to certain parts of the N.W.T.

Education
Senior Matriculation with B standing or better. Several years university study with specific science courses such as chemistry, physics and biology. Four year university program to obtain the Doctor of Dental Surgery or Doctor of Dental Medicine.

COMMON PROBLEM CONDITIONS OF TEETH AND MOUTH OF CHILDREN AND YOUTH

Problem	Signals	Causes	Consequences	Treatment	Prevention
dental decay	- plaque build up - brown spots in grooves on surfaces or between teeth - bad breath - bad taste - some pain when hot, cold, sweet substances are eaten	- improper brushing and flossing - lack of brushing and flossing - frequent eating of sweet sticky foods - dental neglect	plaque + sugar = acid tooth = tooth decay	- drilling to remove disease - filling - crowns - root canal	- fluorides - proper daily brushing and flossing - plaque control - careful selection of foods - sealants - health education - regular dental check-ups
gum disease -gingivitis, periodontitis	- soft, swollen, tender gums when brushed or flossed - loose permanent teeth - persistant bad breath or taste in mouth - a feeling of pressure between teeth after eating - gums shrink from teeth	- bacteria in plaque irritates gums - plaque hardens and irritates gums - infection	- bleeding gums - pockets of pus between gums and tooth - gums, ligaments, bones that support tooth are damaged - teeth loosen and fall out	- removal of plaque and calculus - treatment of infection - Surgical removal of tooth	- plaque control - proper daily brushing and flossing - health education - regular dental checkups
orthodontal	- crooked or poorly aligned permanent teeth - grinding of teeth - improper spacing of teeth	- premature loss of primary teeth - late loss of primary teeth - thumb sucking beyond 5 years	- plaque control problems - appearance problems - biting, chewing, speaking problems - grinding of teeth	- space maintainers - exercises or appliances to move teeth to correct locations - prevention of thumb sucking	- regular dental check-ups - health education

Problem	Signals	Causes	Consequences	Treatment	Prevention
		- teeth too large or too small for jaw - cleft palate	- uneven wear of teeth - periodontal disease	- prevention of grinding of teeth	
nursing bottle mouth	- new teeth are decayed	- frequent exposure of a child's teeth for long periods of time to liquids containing sugars e.g., milk, formula, fruit juice, pop, sweetened water or tea - usually caused when baby is allowed to sleep with the bottle in the mouth - teeth are bathed in liquid.	- bacteria + sugar = acid - acid + tooth = decay	- fillings - tooth removal - caps	- teach parents/ caregivers proper feeding techniques - babies should not be put down to sleep with a bottle, or bottle should contain only water - give bottle when baby is awake in a sitting position to stimulate natural swallowing and tongue positioning - don't let baby or young child fall asleep with sweet liquids in mouth - don't "prop" bottle

DENTAL EMERGENCY PROCEDURES

Knocked-out Tooth

Rinse the tooth. Do not scrub. Place the tooth in a glass of water or milk, or wrap in a wet towel or cloth. Go to the dental health worker immediately with the tooth.

Bitten Tongue or Lip

Apply direct pressure to bleeding area with a clean cloth. If swelling occurs, apply cold compresses. If bleeding persists, go to the hospital or nursing station.

Possible Fractured Jaw

Immobilize the jaw using a handkerchief, scarf or towel. If swelling persists, apply a cold compress. Call the dental health worker immediately and go to the hospital or nursing station.

Broken Tooth

Gently rinse the area with warm water. If swelling occurs, place cool compresses on outside of cheek. Go to the dental health worker immediately.

Orthodontic Problems

If a wire is causing irritation, cover the end of the wire with wax or cotton. Go to the dental health worker immediately. If a wire is embedded in the cheek, tongue or gums, do not attempt to remove. Go to the dental health worker immediately. If an appliance becomes loose or breaks, take the appliance to the dental health worker immediately.

Toothache

Remove any debris around tooth by rinsing with warm water and flossing on either side of the tooth. If swelling is present, place cool compresses on the outside of the cheek. Do not use heat. See the dental health worker as soon as possible.

Object Wedged Between Teeth

Try to remove objects with dental floss. Do not snap the floss in between the teeth. If flossing does not remove the object, go to the dental health worker. Do not try to remove the object with sharp or pointed instruments.

Adapted from: Health Education, Dental Health Teaching Supports, Grade 5, Manitoba Education, 1986.

NUTRITION AND DENTAL HEALTH

Foods can be classified as either Go, Caution or Stop foods

Go

Foods both dentally and nutritionally recommended

High in Nutrients, Low in Sugar.
Go foods are high in nutritional value Whether they are selected as a part of meals and/or as between meal snacks, such foods can contribute significantly to the total daily nutrient needs Since they are also low in sugar, they do not promote tooth decay

Sample Foods

White milk, (homo, 2%, 1% or skim)
Buttermilk
Plain yogurt
Cheese or cottage cheese
Plain whole grain or enriched breads
Melba toast
Meat, poultry, fish, eggs, cheese or peanut butter
Hamburgers, pizza
Raw or cooked fruits and vegetables
Unsweetened fruit* and vegetable juice
Tossed salads and coleslaw
Devilled or hard cooked eggs
Nuts (peanuts, pistachios, almonds, etc)
Seeds (sunflower, pumpkin, sesame)

* ***Unsweetened fruit juices are acceptable, but should not be taken too frequently during the day as they contain natural sugars which can damage teeth just as refined sugars do. Water is good for thirsty people.***

Caution

Foods that are either not recommended dentally or nutritionally

A. Dentally poor foods that have nutritional value

Moderately High in Nutrients, High in Sugar
These popular foods have some nutritional value, but are also high in sugar content They are less harmful to the teeth if consumed with bigger meals instead of as single snacks Greatly increased flow of saliva during a main meal will help neutralize the harmful acids that are formed in the mouth from the sugar Between meals, the flow of saliva is much decreased, hence the natural protection for the teeth is lacking

Sample Foods

Milk puddings
Milkshakes
Chocolate milk or drink
Ice Cream
Ice Cream sodas
Yogurt, sweetened
Sherbert
Sweetened fruits
Unsweetened fruit juices, if taken frequently
Raisins and other dried fruits

B. Foods nutritionally poor but dentally acceptable

Low in Nutrients, Low in Sugar
Although these foods are relatively harmless to the teeth due to low sugar content, they contribute little toward fulfilling body nutrient needs Since they contain few nutrients in relation to the calories provided, they should be chosen infrequently Only people on otherwise well-balanced diets can afford to indulge in these occasionally

Sample Foods

Popcorn, without salt or butter
Sugar-free soft drinks and sugarless gum

Stop

Products nutritionally and dentally unacceptable

Low in Nutrients, High in Sugar
These products are high in sugar and are not acceptable They are also low in nutrient value and should never be allowed to replace the high-nutrient foods in the diet Avoid them as much as possible

Sample Foods

- Sweet baked goods
- Chocolate bars, candies, lozenges, regular gum and breath mints
- Honey, jams, jellies, syrup
- Beverages containing sugar such as regular soft drinks, tea and coffee with added sugar, drink crystals
- Popcorn with salt and butter
- Cheesies, potato chips, etc

Read the label "Sugar" can be spelled many ways - sucrose, glucose, fructose, lactose, molasses, honey, syrup

Source: Eating Properly For Better Dental Health, Canadian Dental Association, 1979

VITAMINS AND MINERALS ESSENTIAL FOR DENTAL HEALTH

Vitamins, minerals and water are not digested by the body as are carbohydrates, fats and proteins They are released from foods and absorbed by the body's tissues These nutrients maintain specific body functions Required for dental health are calcium, phosphorus and fluoride, as well as vitamins A, C, D

mineral	function	good-excellent sources
calcium	- maintains bones and teeth - blood clotting - nerve and heart activity	- milk products, seaweed (kelp, laver), lambs-quarters, dried, salted codfish, canned salmon with bones, sardines, herring, eggs, broccoli, soft animal bones
phosphorus	- develops bones and teeth - aids muscle activity - releases energy in metabolism	- milk, egg yolk, meat, birds, fish, whole grain cereals, nuts, legumes
fluoride	- strengthens teeth, bones	- fish, fluoridated water, seafoods, tea

vitamin	function	good-excellent sources
A	- maintains healthy teeth, bones, eyes, skin	- milk products, egg yolk, green and yellow vegetables, eel, crab, organ meats, caribou stomach contents
D	- builds and maintains bones and teeth - helps absorb phosphorus	- fortified milk, eggs, sun (ultraviolet) light on exposed skin
C	- keeps teeth firmly in gums - heals wounded tissue - aids in iron absorption	- raw fruits and vegetables, vitamized fruit juice, rosehips, dock, lambsquarters, cranberries, black currants, gooseberries, raw oysters, citrus fruits

LIFESTYLE BEHAVIOURS WHICH PROMOTE ORAL AND DENTAL HEALTH FOR A LIFETIME

DO

1 Eat a well balanced diet according to the NWT Food Guide

2 Brush and floss thoroughly at least once a day

3 Rinse the mouth with water when brushing is not possible

4 Use disclosing tablets from time to time to ensure all plaque is being removed, and to check for effectiveness of brushing and flossing

5 Use a fluoride toothpaste and a brush with soft nylon bristles with rounded ends

6 Drink fluoridated water, or take fluoride drops or pills daily until about age 14

7 Visit the dental health worker regularly (usually every 6 months)

8 Wear protective equipment when playing sports, or driving ATV's and snowmobiles

9 Wear seat belts in cars and trucks

10 Go to the dental health worker immediately in the event of any dental or mouth injury

DON'T

1 Eat too many sweet or sticky foods

2 Eat sweet or sticky foods too often

3 Let a baby fall asleep with a bottle (unless it contains only plain water)

4 Use sweets as a reward or treat for children

5 Use a worn out, frayed toothbrush It does not clean effectively

6 Push others near dental hazards, such as drinking fountains and playground equipment

7 Put harmful objects in the mouth

DENTAL HYGIENE AIDS

There are many products designed to clean the surface of the teeth as well as the area between the teeth and under the gum line In addition to the toothbrush these include

Dental floss - unwaxed
- waxed
- flavoured

Dental tape - used to clean spaces between widely spaced teeth

Super floss - a special floss designed to clean under bridgework

Stimudents - an interdental cleaner, similar to a toothpick

Proxabrush - a small brush used to clean between widely spaced teeth

Water pik - an irrigation device which can remove debris from around the teeth and gums

Caution

The following products should be used only after recommendation and instruction by a dental professional water piks, stimudents, dental tape, super floss, fluoride supplements and rinses, and toothpastes for sensitive teeth

If you are uncertain about any dental product, always ask a dental health professional