

NORTHWEST TERRITORIES

School Health Program

GRADE FIVE



Northwest
Territories

Education, Culture and Employment
Health and Social Services

NORTHWEST TERRITORIES

School Health Program

GRADE 5



Northwest
Territories Education, Culture and Employment
Health and Social Services

August, 1995

NORTHWEST TERRITORIES

School Health Program

INTRODUCTION

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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.

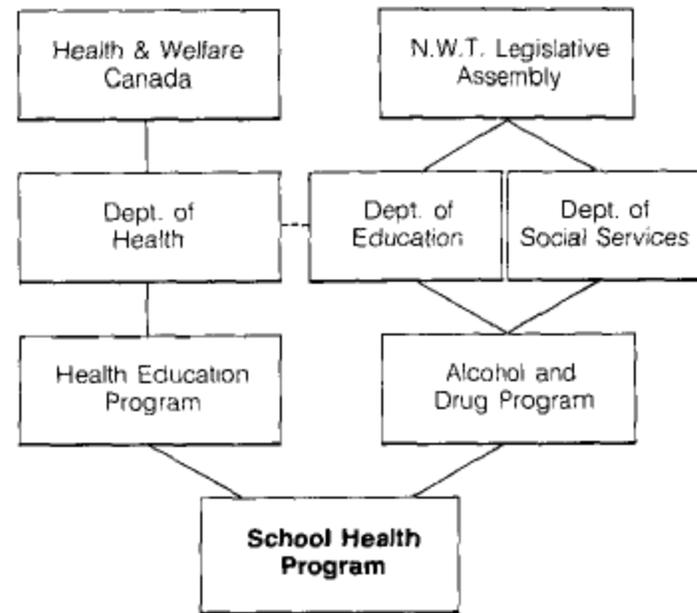
THE HISTORY OF THE N.W.T. SCHOOL HEALTH PROGRAM

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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School Health Program

IMPLEMENTATION

MAJOR GOALS

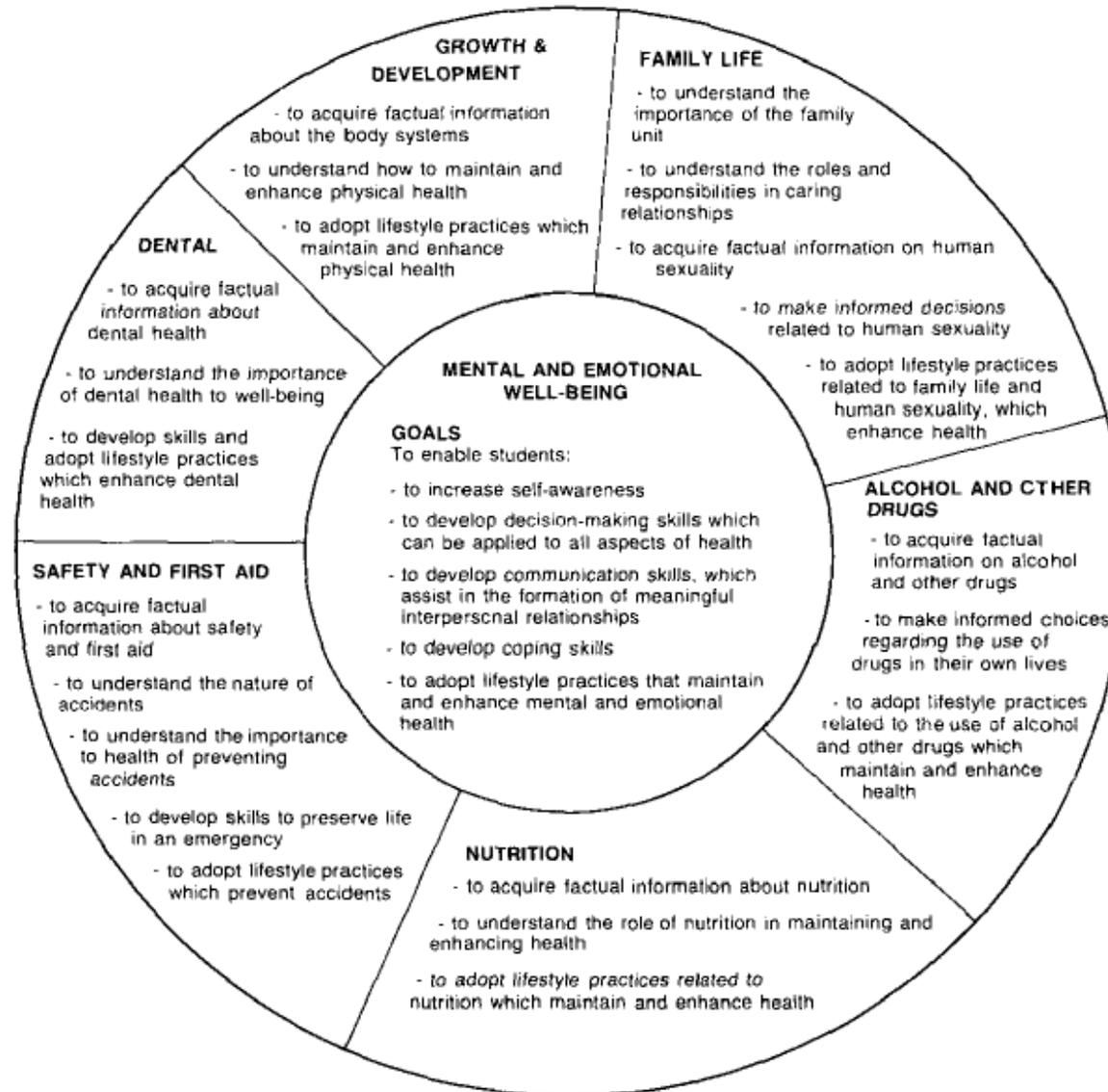
OF THE NORTHWEST TERRITORIES SCHOOL HEALTH PROGRAM

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	<p>Self awareness</p> <ul style="list-style-type: none"> physical characteristics abilities feelings <p>Relationships</p> <ul style="list-style-type: none"> doing things with friends 	<p>Self awareness</p> <ul style="list-style-type: none"> physical characteristics abilities likes and dislikes <p>Relationships</p> <ul style="list-style-type: none"> working and playing together helping sharing 	<p>Self awareness</p> <ul style="list-style-type: none"> feelings expressing feelings appropriately <p>Relationships</p> <ul style="list-style-type: none"> friends making friends <p>Coping</p> <ul style="list-style-type: none"> stressful situations 	<p>Self awareness</p> <ul style="list-style-type: none"> people are alike and different everyone is unique <p>Relationships</p> <ul style="list-style-type: none"> responsibilities sharing responsibilities different ways of communicating <p>Decision-Making</p> <ul style="list-style-type: none"> choices situations which require decisions
Growth & Development	<p>Body Systems</p> <ul style="list-style-type: none"> external body parts five sensory organs <p>Lifestyle</p> <ul style="list-style-type: none"> positive daily and regular health habits 	<p>Body Systems</p> <ul style="list-style-type: none"> touch taste smell <p>Disease Prevention</p> <ul style="list-style-type: none"> signs of sickness germs spread diseases disease prevention 	<p>Body Systems</p> <ul style="list-style-type: none"> sight hearing <p>Lifestyle</p> <ul style="list-style-type: none"> positive health habits <p>Health Care</p> <ul style="list-style-type: none"> community health care workers <p>Environmental Health</p> <ul style="list-style-type: none"> clean water, air and good soil 	<p>Body Systems</p> <ul style="list-style-type: none"> internal organs <p>Growth Patterns</p> <ul style="list-style-type: none"> changes in height and weight <p>Disease Prevention</p> <ul style="list-style-type: none"> personal responsibility for health <p>Environmental Health</p> <ul style="list-style-type: none"> different kinds of pollution
Family Life		<p>Families</p> <ul style="list-style-type: none"> different members similarities/differences in family structures <p>Human Development & Reproduction</p> <ul style="list-style-type: none"> external body parts/boys/girls <p>Abuse Prevention</p> <ul style="list-style-type: none"> feelings associated with touch safety rules family/community support people 	<p>Families</p> <ul style="list-style-type: none"> families provide for the needs of their members the maintenance of the family unit <p>Human Development & Reproduction</p> <ul style="list-style-type: none"> living things reproduce and grow <p>Abuse Prevention</p> <ul style="list-style-type: none"> potentially abusive situations behaviours that maintain personal safety 	<p>Families</p> <ul style="list-style-type: none"> family structure changes with time new family members some family members require special care <p>Human Development & Reproduction</p> <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> foods and non-foods Food Appreciation <ul style="list-style-type: none"> healthy snacks unfamiliar foods 	Food Identification <ul style="list-style-type: none"> foods from plants and animals Food Classification <ul style="list-style-type: none"> four food groups Food Selection <ul style="list-style-type: none"> food from each food group Food Appreciation <ul style="list-style-type: none"> nutritious food to start the day 	Food Identification <ul style="list-style-type: none"> different food farms Food Classification <ul style="list-style-type: none"> functions of each food group nutritious snacks Food Selection <ul style="list-style-type: none"> nutritious meals Food Appreciation <ul style="list-style-type: none"> different food forms 	Food Classification <ul style="list-style-type: none"> classifying into food groups function of each food group common foods which do not belong to a food group Food Selection <ul style="list-style-type: none"> nutritious eating for one day Food Appreciation <ul style="list-style-type: none"> nutritious food to start the day
Dental	Structure and Function <ul style="list-style-type: none"> primary and permanent teeth teeth functions Oral Hygiene <ul style="list-style-type: none"> toothbrushing skills Dental Health <ul style="list-style-type: none"> safe and unsafe food 	Structure and Function <ul style="list-style-type: none"> primary and permanent teeth teeth functions Oral Hygiene <ul style="list-style-type: none"> toothbrushing skills Dental Health <ul style="list-style-type: none"> safe and unsafe food safe and unsafe behaviours Dental Disease <ul style="list-style-type: none"> tooth decay Dental Services and Products <ul style="list-style-type: none"> local dental health workers 	Structure and Function <ul style="list-style-type: none"> primary and permanent teeth Oral Hygiene <ul style="list-style-type: none"> flossing skills Dental Health <ul style="list-style-type: none"> safe and unsafe snacks Dental Disease <ul style="list-style-type: none"> dental plaque Dental Services and Products <ul style="list-style-type: none"> common dental health products 	Structure and Function <ul style="list-style-type: none"> specific tooth groups and their functions Oral Hygiene <ul style="list-style-type: none"> toothbrushing and flossing skills Dental Disease <ul style="list-style-type: none"> dental plaque Dental Services and Products <ul style="list-style-type: none"> personal responsibility for dental health care community dental health workers
Safety & First Aid	Personal Safety <ul style="list-style-type: none"> personal safety rules personal identity facts community safety helpers safety rules for pedestrians Fire Safety <ul style="list-style-type: none"> fire drill procedures Safety <ul style="list-style-type: none"> poisons poison warning sign tasting unknown substances hazard warning signs 	Personal Safety <ul style="list-style-type: none"> personal safety rules personal identity facts community safety helpers emergency phone calls Accident Prevention <ul style="list-style-type: none"> burns and scalds falls First Aid <ul style="list-style-type: none"> first aid for minor cuts Safety <ul style="list-style-type: none"> poisons sniffing unsafe substances tasting unknown substances 	Bum Prevention <ul style="list-style-type: none"> safety rules around electricity Bicycle Safety <ul style="list-style-type: none"> bicycle rules and traffic laws Outdoor Safety <ul style="list-style-type: none"> frostbite Firearm Safety <ul style="list-style-type: none"> firearm safety rules First Aid <ul style="list-style-type: none"> nosebleeds Safety <ul style="list-style-type: none"> hazard warning signs common unsafe substances rules for unsafe substances 	Burn Prevention <ul style="list-style-type: none"> burns and scalds Fire Safety <ul style="list-style-type: none"> clothes on fire burning buildings Outdoor Safety <ul style="list-style-type: none"> Ice safety Personal Safety <ul style="list-style-type: none"> animal bites Safety <ul style="list-style-type: none"> hazard warning signs
Alcohol & Other Drugs		Drugs <ul style="list-style-type: none"> medicine safety 	Drugs <ul style="list-style-type: none"> medicines are drugs medicines may be helpful and harmful 	Drugs <ul style="list-style-type: none"> sources of medicines rules for medicines common substances which contain drugs Tobacco <ul style="list-style-type: none"> effects of tobacco Well-Being <ul style="list-style-type: none"> improving their well-being

SCOPE AND SEQUENCE

UNIT	GRADE 4	GRADE 5	GRADE 6
Mental & Emotional Well-Being	<p>Self awareness</p> <ul style="list-style-type: none"> • strengths and weaknesses • activities affect how people feel <p>Relationships</p> <ul style="list-style-type: none"> • caring behaviours <p>Decision-Making</p> <ul style="list-style-type: none"> • the effects of choices • peer influence • resisting peer pressure 	<p>Relationships</p> <ul style="list-style-type: none"> • communication/effective speaking/active listening • assertive communication skills • the refusal process <p>Decision-Making</p> <ul style="list-style-type: none"> • advertising influence <p>Coping</p> <ul style="list-style-type: none"> • stressful situations • signs of stress • ways of dealing with stress 	<p>Relationships</p> <ul style="list-style-type: none"> • responsibilities in maintaining a relationship • volunteerism <p>Decision-Making</p> <ul style="list-style-type: none"> • values • the decision-making process • group decisions <p>Coping</p> <ul style="list-style-type: none"> • time management <p>Lifestyle</p> <ul style="list-style-type: none"> • assessing/improving personal characteristics
Growth & Development	<p>Body Systems</p> <ul style="list-style-type: none"> • digestive system <p>Disease Prevention</p> <ul style="list-style-type: none"> • communicable/non-communicable diseases <p>Environmental Health</p> <ul style="list-style-type: none"> • safe drinking water <p>Health Care System</p> <ul style="list-style-type: none"> • health care supports 	<p>Body Systems</p> <ul style="list-style-type: none"> • respiratory system/circulatory system • lifestyle behaviours for a healthy cardiovascular system 	<p>Body Systems</p> <ul style="list-style-type: none"> • excretory system/nervous system <p>Disease Prevention</p> <ul style="list-style-type: none"> • germ entry into the body • the three lines of defence • AIDS prevention
Family Life	<p>Families</p> <ul style="list-style-type: none"> • families provide for the needs of their members • family traditions <p>Human Development and Reproduction</p> <ul style="list-style-type: none"> • characteristic changes of puberty • reproductive system • menstruation (optional lesson for girls only) <p>Abuse Prevention</p> <ul style="list-style-type: none"> • touches that produce negative or confused feelings • family/community support people 	<p>Families</p> <ul style="list-style-type: none"> • male/female roles • family activities <p>Human Development and Reproduction</p> <ul style="list-style-type: none"> • characteristic changes of puberty • reproductive system • menstruation • reproductive process/sex cell development/journey of sperm/intercourse/fertilization 	<p>Families</p> <ul style="list-style-type: none"> • responsibilities and relationships change with time • importance of elders <p>Human Development and Reproduction</p> <ul style="list-style-type: none"> • endocrine system • relationship between puberty and the endocrine system • relationship between reproduction and menstruation • reproductive process/stages of fetal development <p>Abuse Prevention</p> <ul style="list-style-type: none"> • sexual abuse/behaviours which prevent abuse • family/community, support people

SCOPE AND SEQUENCE

UNIT	GRADE 4	GRADE 5	GRADE 6
	<p>Food Classification</p> <ul style="list-style-type: none"> • six major nutrients • sources of major nutrients • nutritious and non-nutritious snacks <p>Food Selection</p> <ul style="list-style-type: none"> • factors that affect food choices <p>Food Appreciation</p> <ul style="list-style-type: none"> • nutritious snacks 	<p>Food Classification</p> <ul style="list-style-type: none"> • leader nutrients and their functions • sources of leader nutrients <p>Food Selection</p> <ul style="list-style-type: none"> • recommended daily servings • food availability, • food processing <p>Food Appreciation</p> <ul style="list-style-type: none"> • a nutritious northern meal 	<p>Food Classification</p> <ul style="list-style-type: none"> • leader nutrients and their functions • sources of leader nutrients <p>Food Selection</p> <ul style="list-style-type: none"> • serving sizes • balanced food intake • reading food labels <p>Lifestyle</p> <ul style="list-style-type: none"> • personal nutrition program
Dental	<p>Structure and Function</p> <ul style="list-style-type: none"> • structure and functions of teeth <p>Oral Hygiene</p> <ul style="list-style-type: none"> • oral hygiene skills • healthy dental behaviours <p>Dental Health</p> <ul style="list-style-type: none"> • dental hazards • preventing dental injuries <p>Dental Disease</p> <ul style="list-style-type: none"> • tooth decay • fluoride <p>Dental Services and Products</p> <ul style="list-style-type: none"> • dental health care 	<p>Oral Hygiene</p> <ul style="list-style-type: none"> • toothbrushing and flossing skills <p>Dental Health</p> <ul style="list-style-type: none"> • effects of tobacco products <p>Dental Services and Products</p> <ul style="list-style-type: none"> • benefits and disadvantages of dental health products • homemade toothpaste • role of dental health workers 	<p>Structure and Function</p> <ul style="list-style-type: none"> • structure and functions of teeth <p>Oral Hygiene</p> <ul style="list-style-type: none"> • oral hygiene skills • healthy dental behaviours <p>Dental Disease</p> <ul style="list-style-type: none"> • common dental health problems • signs of dental health problems • treatment for dental health problems • preventing dental health problems <p>Lifestyle</p> <ul style="list-style-type: none"> • personal dental health program
Safety & First Aid	<p>Burn Prevention</p> <ul style="list-style-type: none"> • scalds <p>Bicycle Safety</p> <ul style="list-style-type: none"> • bike maintenance • bike skills and safety rules <p>Fire Safety</p> <ul style="list-style-type: none"> • common causes of fire • fire exit plans • individual responsibility <p>First Aid</p> <ul style="list-style-type: none"> • frostbite and hypothermia <p>Motor Vehicle Safety</p> <ul style="list-style-type: none"> • all terrain vehicles • snowmobiles 	<p>Burn Prevention</p> <ul style="list-style-type: none"> • burns from flames • burns from electricity <p>Fire Safety</p> <ul style="list-style-type: none"> • home/campfire safety <p>Outdoor Safety</p> <ul style="list-style-type: none"> • safe camping • water and ice safety <p>First Aid</p> <ul style="list-style-type: none"> • burns • external bleeding 	<p>Motor Vehicle Safety</p> <ul style="list-style-type: none"> • all terrain vehicles • snowmobiles <p>Babysitting Safety</p> <ul style="list-style-type: none"> • responsibilities • common rules • safety rules • emergencies <p>Outdoor Safety</p> <ul style="list-style-type: none"> • survival <p>First Aid</p> <ul style="list-style-type: none"> • artificial respiration • choking • external bleeding • poisoning • unconsciousness <p>Lifestyle</p> <ul style="list-style-type: none"> • importance of first aid • safety organizations and professionals • personal safety and first aid program
Alcohol & Other Drugs	<p>Drugs</p> <ul style="list-style-type: none"> • 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 <p>Caffeine</p> <ul style="list-style-type: none"> • caffeine affects the body <p>Alcohol</p> <ul style="list-style-type: none"> • 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 <p>Well-Being</p> <ul style="list-style-type: none"> • feeling good without drugs 	<p>Drugs</p> <ul style="list-style-type: none"> • 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 <p>Alcohol</p> <ul style="list-style-type: none"> • short/long term effects of alcohol • use and misuse of alcohol • community resources for alcohol problems <p>Well-Being</p> <ul style="list-style-type: none"> • feeling good without drugs 	<p>Drugs</p> <ul style="list-style-type: none"> • personal responsibility for decisions about drug use • values related to drug use • drug myths • peer pressure/advertising influence decisions about drug use <p>Alcohol</p> <ul style="list-style-type: none"> • factors which determine the effects of alcohol • social effects of alcohol misuse • effects of alcohol on young people <p>Well-Being</p> <ul style="list-style-type: none"> • individual activities which promote well-being • leisure time activities in the community

SCOPE AND SEQUENCE

UNIT	GRADE 7	GRADE 8	GRADE 9
Mental & Emotional Well-Being	<ul style="list-style-type: none"> • self-esteem • conversations • criticism • personal plan to enhance self-esteem 	<ul style="list-style-type: none"> • characteristics of effective working groups • reasons for forming group • depression • suicide • stress <ul style="list-style-type: none"> - causes - methods of dealing with stress 	<ul style="list-style-type: none"> • future career choices • job seeking • assessment of personal lifestyles • personal plan to improve lifestyle
Growth & Development	<ul style="list-style-type: none"> • integumentary system/immune system • common health problems of adolescence • health behaviours which help prevent adult health problems • physical fitness <ul style="list-style-type: none"> - components - personal plan 	<ul style="list-style-type: none"> • skeletal system/muscular system • personal exercise plan for the muscular system 	<ul style="list-style-type: none"> • inter-relationship of the body system • NWT Health Care system function <ul style="list-style-type: none"> - responsible use • economics of health care • health careers
Family Life	<ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> - AIDS - chlamydia - gonorrhoea - preventive behaviours • sexual assault <ul style="list-style-type: none"> - common myths - consequences for victim and offender • potentially dangerous situations • behaviours which help prevent sexual assault 	<ul style="list-style-type: none"> • family structures change • menstruation <ul style="list-style-type: none"> - the implications • stages of the reproductive process • abstinence and assertiveness • positive health behaviours related to pregnancy • sexually transmitted diseases <ul style="list-style-type: none"> - AIDS - syphilis - trichomonas - pubic lice - preventive behaviours • birth control <ul style="list-style-type: none"> - methods - attitudes • family violence <ul style="list-style-type: none"> - causal factors - coping 	<ul style="list-style-type: none"> • sex-role stereotyping • effective parenting • support systems for families • reproductive system <ul style="list-style-type: none"> - its role in the formation of new life • heredity • fetal development stages <ul style="list-style-type: none"> - risk factors • birth control risks and consequences • unplanned pregnancy <ul style="list-style-type: none"> - alternatives attitudes - prevention • positive lifestyle practices related to family life • constructive relationships

SCOPE AND SEQUENCE

UNIT	GRADE 7	GRADE 8	GRADE 9
Nutrition	<p>Food Classification</p> <ul style="list-style-type: none"> • NWT Food Guide <p>Food Selection</p> <ul style="list-style-type: none"> • menu planning for different age groups <p>Food Consumerism</p> <ul style="list-style-type: none"> • advertising affects food choices • food additives <p>Food Appreciation</p> <ul style="list-style-type: none"> • food items with few additives 	<p>Energy Balance</p> <ul style="list-style-type: none"> • energy needs • stored energy • energy intake and output <p>Food Consumerism</p> <ul style="list-style-type: none"> • analyzing diets <p>Lifestyle</p> <ul style="list-style-type: none"> • weight control 	<p>Food Selection</p> <ul style="list-style-type: none"> • factors that influence food choices • food customs in the NWT • community feast menu <p>Lifestyle</p> <ul style="list-style-type: none"> • nutrition concerns in the NWT • preventive behaviours • Canadian nutrition and dietary recommendations • personal nutrition program
Dental	<p>Dental Health</p> <ul style="list-style-type: none"> • dental emergencies <p>Dental Disease</p> <ul style="list-style-type: none"> • common dental health problems of children and youth • nursing bottle mouth 	<p>Dental Health</p> <ul style="list-style-type: none"> • safe, unsafe foods <p>Dental Services and Products</p> <ul style="list-style-type: none"> • professional preventive procedures • fluoride • common dental health products <p>Lifestyle</p> <ul style="list-style-type: none"> • personal action plan for dental health 	<p>Dental Health</p> <ul style="list-style-type: none"> • behaviours/factors that promote dental health <p>Dental Careers</p> <ul style="list-style-type: none"> • requirements for dental careers <p>Lifestyle</p> <ul style="list-style-type: none"> • positive lifestyle practices related to dental health
Safety & First Aid	<p>Babysitting Safety</p> <ul style="list-style-type: none"> • responsibilities • common injuries • childcare routines and play • safety rules <p>Outdoor Safety</p> <ul style="list-style-type: none"> • firearm safety <p>First Aid</p> <ul style="list-style-type: none"> • burns • poisoning <p>Lifestyle</p> <ul style="list-style-type: none"> • safety organizations and professionals • personal safety and first aid program 	<p>Outdoor Safety</p> <ul style="list-style-type: none"> • survival safety boating safety • sports safety <p>First Aid</p> <ul style="list-style-type: none"> • frostbite/hypothermia • head/eye injuries diabetic emergencies • epileptic seizures/convulsions • fainting <p>Lifestyle</p> <ul style="list-style-type: none"> • importance of first aid • personal safety and first aid program 	<p>First Aid</p> <ul style="list-style-type: none"> • artificial respiration • choking • external/internal bleeding • shock • unconsciousness • fractures, sprains, dislocations • heart attacks, strokes • poisoning <p>Lifestyle</p> <ul style="list-style-type: none"> • leading causes of injuries/accidental death • personal safety and first aid program
Alcohol & Other Drugs	<p>Drugs</p> <ul style="list-style-type: none"> • methods of taking drugs • different categories of drugs • traditional medicine <p>Alcohol</p> <ul style="list-style-type: none"> • different types of alcohol • metabolism of alcohol • effects of alcohol • reasons for using/not using alcohol <p>Cannabis</p> <ul style="list-style-type: none"> • cannabis and the body <p>Well-Being</p> <ul style="list-style-type: none"> • peer pressure and drug use • positive role models 	<p>Drugs</p> <ul style="list-style-type: none"> • dangers of combining drugs • advertising influences decisions about drug use <p>Alcohol</p> <ul style="list-style-type: none"> • 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 <p>Cannabis</p> <ul style="list-style-type: none"> • physical and psychological effects of cannabis • cannabis and the reproductive system 	<p>Drugs</p> <ul style="list-style-type: none"> • drug groups • side effects of drugs • drugs and the law <p>Alcohol</p> <ul style="list-style-type: none"> • alcohol and the law • The Young Offenders' Act • local control of alcohol <p>Well-Being</p> <ul style="list-style-type: none"> • 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 embarrassment 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

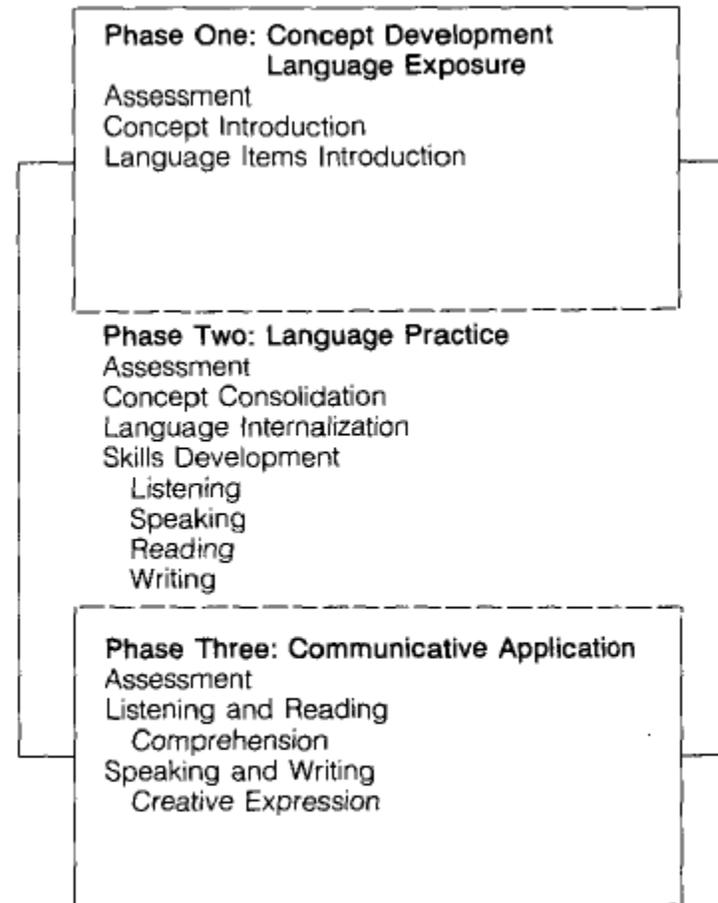
These principles are also valid for students who speak English as a first language. The difference lies in the methods and techniques used. Although designed for second language students, the Language Development Approach allows flexibility in choosing specific classroom practices and techniques to meet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

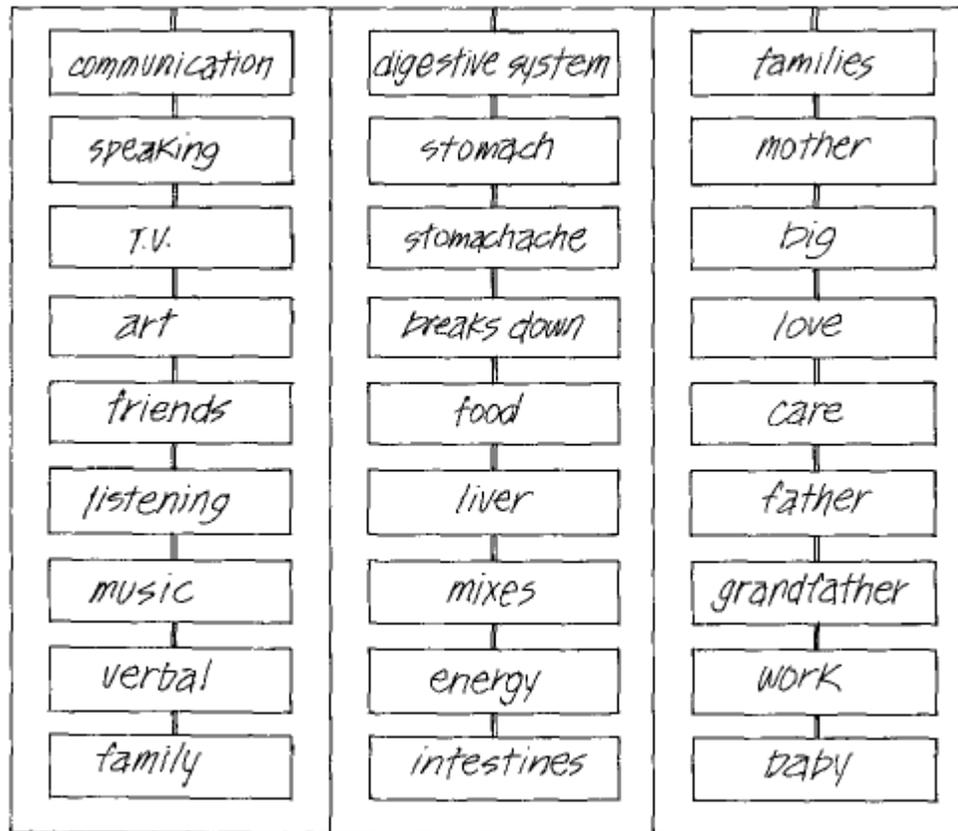
These activities will also help determine what language students have to discuss the topic, i.e., what vocabulary items students already know and what associations they have for each word. It is important to ascertain the meanings students attach to words; sometimes their interpretations may be surprising! 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	The Digestive System	Families
Ask students: "What do you know about communication?"	Ask students: "What do you know about the digestive system?"	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?	What body parts are part of the digestive system?	What kinds of families are there?
How do we communicate?	What do they do?	How are families alike?
With whom do we communicate?	Where are they found?	How are families different?
	How do we take care of them?	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 if 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.

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.

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

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. If 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?

EvaluationIdudgingNaluing

1. How do you feel 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 5



Northwest
Territories Education, Culture and Employment
Health and Social Services

August, 1995

MENTAL AND EMOTIONAL WELL BEING

GRADE 5

LESSON NO.	THEME	CONCEPT	OBJECTIVES
			Students will be able to:
1	RELATIONSHIPS	Effective communication is important in a relationship	i) describe effective speaking and active listening skills ii) demonstrate effective speaking and active listening skills
2	RELATIONSHIPS	Effective communication is important in a relationship	i) describe different communication skills ii) describe the importance of effective communication in a relationship
3	RELATIONSHIPS	Effective communication is important in a relationship	i) identify assertive communication skills ii) demonstrate assertive communication skills
4	RELATIONSHIPS	Effective communication is important in a relationship	i) identify steps in a refusal process ii) practise the steps of the refusal process
5	DECISION-MAKING	Advertising is designed to influence decisions	i) identify advertising techniques used to persuade
6	DECISION-MAKING	Advertising is designed to influence decisions	i) practise designing an advertisement using one or more persuasion techniques
7	COPING	Signs of stress are identifiable	i) identify situations that cause stress ii) identify signs of stress
8	COPING	Specific actions can be taken to help deal with stress	i) identify specific ways of dealing with stress ii) practise behaviours which help deal with stress

GROWTH AND DEVELOPMENT

GRADE 5

LESSON NO.	THEME	CONCEPT	OBJECTIVES
			Students will be able to:
1	BODY SYSTEMS	The respiratory system is essential for getting oxygen into and carbon dioxide out of the body	i) name and locate the main parts of the respiratory system
2	BODY SYSTEMS	The respiratory system is essential for getting oxygen into and carbon dioxide out of the body	i) describe the functions of the respiratory system ii) state the importance of the respiratory system
3	BODY SYSTEMS	The respiratory system is essential for getting oxygen into and carbon dioxide out of the body	i) name common problem conditions related to the respiratory system ii) describe ways to care for the respiratory system
4	BODY SYSTEMS	The circulatory system is essential for circulation of blood throughout the body	i) name and locate the main parts of the circulatory system
5	BODY SYSTEMS	The circulatory system is essential for circulation of blood throughout the body	i) describe the functions of the circulatory system ii) state the importance of the circulatory system
6	BODY SYSTEMS	The circulatory system is essential for circulation of blood throughout the body	i) name common problem conditions related to the circulatory system ii) describe ways to care for the circulatory system
7	BODY SYSTEMS	Lifestyle is important to the prevention of cardiovascular disease	i) identify lifestyle behaviours that maintain a healthy cardiovascular system

FAMILY LIFE

GRADE 5

LESSON NO.	THEME	CONCEPT	OBJECTIVES
			Students will be able to:
1	FAMILIES	Male and female roles in the family are determined by capabilities, potentials and cultural tradition	<ul style="list-style-type: none">i) identify traditional male and female roles within the familyii) identify how capabilities and potentials affect male and female rolesiii) describe how male and female roles are changing and have changed
2	FAMILIES	Family activities can enhance family living	<ul style="list-style-type: none">i) identify activities which a family can do togetherii) describe the importance of family activities in enhancing family living
3	HUMAN DEVELOPMENT AND REPRODUCTION	Puberty is one stage of development in everyone's life ,	<ul style="list-style-type: none">i) identify the physical changes in males and females at pubertyii) describe personal hygiene practices related to pubertyin) describe the mental, emotional and social changes which take place during adolescence
4	HUMAN DEVELOPMENT AND REPRODUCTION	The reproductive system enables human life to begin	<ul style="list-style-type: none">i) describe the functions of the male reproductive organs
5	HUMAN DEVELOPMENT AND REPRODUCTION	The reproductive system enables human life to begin	<ul style="list-style-type: none">i) describe the functions of the female reproductive organs

FAMILY LIFE

GRADE 5

LESSON NO.	THEME	CONCEPT	OBJECTIVES
			Students will be able to:
6	HUMAN DEVELOPMENT AND REPRODUCTION	Menstruation is a natural occurrence in females	<ul style="list-style-type: none">i) identify the main events of the menstrual cycleii) describe the importance of the menstrual cycleiii) describe body hygiene and personal products related to menstruation
7	HUMAN DEVELOPMENT AND REPRODUCTION	Human life is formed by the union of an egg and a sperm	<ul style="list-style-type: none">i) describe the journey of an eggii) describe the journey of the spermiii) describe the process of human fertilization

NUTRITION

GRADE 5

LESSON NO.	THEME	CONCEPT	OBJECTIVES
			Students will be able to:
1	FOOD CLASSIFICATION	Foods are classified into four food groups on the basis of nutrient content	i) identify the leader nutrients in each of the four food groups ii) describe the functions of the leader nutrients of each of the four food groups
2	FOOD CLASSIFICATION	Foods are classified into four food groups on the basis of nutrient content	i) classify foods that are excellent sources of leader nutrients into the four food groups
3	FOOD SELECTION	It is important to select at least the minimum number of recommended daily servings from each food group	i) identify the minimum number of recommended daily servings from each food group to meet nutritional requirements
4	FOOD SELECTION	Food availability affects food choices	i) explain factors that affect availability of foods
5	FOOD SELECTION	Food is processed in a variety of ways	i) describe some food processing methods ii) explain the importance of food processing
6	FOOD APPRECIATION	A willingness to eat nutritious country food promotes food appreciation and health	i) plan and prepare a nutritious northern meal ii) eat a nutritious northern meal iii) complete a recipe book of nutritious country food

DENTAL HEALTH

GRADE 5

LESSON NO.	THEME	CONCEPT	OBJECTIVES
			Students will be able to:
1	ORAL HYGIENE	Regular practice of effective oral hygiene skills promotes dental health	i) appraise toothbrushing and flossing skills
2	FACTORS AFFECTING DENTAL HEALTH	Use of tobacco products affects oral health	i) identify the effects of tobacco products on oral health
3	DENTAL SERVICES AND PRODUCTS	Approved dental products promote dental health	i) state the benefits and any disadvantages of dental health products ii) prepare a home-made toothpaste
4	DENTAL SERVICES AND PRODUCTS	Dental health workers play an important role in dental health care	i) identify the roles of dental health workers

SAFETY AND FIRST AID

GRADE 5

LESSON NO.	THEME	CONCEPT	OBJECTIVES
			Students will be able to:
1	FIRE SAFETY	There are safety rules to follow to prevent fires	i) list common causes of fires around the house ii) identify fire prevention strategies
2	FIRE SAFETY	There are safety rules and procedures to follow for fires	i) describe correct procedures to react to fire and to exit a burning building ii) practise correct procedures to exit a burning building iii) develop a fire exit plan with their families
3	OUTDOOR SAFETY	Safety on the land or in the bush involves planning and safety rules	i) identify items to include when planning a summer and/or winter hunting trip ii) identify safety rules on the land or in the bush iii) demonstrate safety rules around camping stoves and lanterns iv) demonstrate safety rules around campfires v) identify safety rules around campstoves, lanterns, heaters, woodstoves, etc.
4	FIRE ARM 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 behaviours around firearms to prevent injuries and death
5	FIRST AID	First aid can minimize injuries caused by bleeding and burns	i) explain the term wound ii) state the importance of treating severe external bleeding iii) demonstrate first aid for bleeding iv) demonstrate first aid for burns and scalds
6	FIRST AID	First aid can minimize injuries	i) describe contents of first aid kit

ALCOHOL AND OTHER DRUGS

GRADE 5

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 specific drugs in certain commonly used substances
2	DRUGS	THERE ARE MANY MYTHS SURROUNDING DRUGS	i) identify some of the myths related to drugs ii) identify community resources for accurate drug information
3	TOBACCO	USING TOBACCO AFFECTS THE BODY	i) identify that smoking tobacco affects the heart ii) explain that tobacco contains a drug
4	ALCOHOL	ALCOHOL AFFECTS THE BODY	i) identify some short-term and long-term effects of drinking alcohol
5	ALCOHOL	ALCOHOL MAY BE MISUSED	i) identify the use and misuse of alcohol ii) identify some of the social effects of alcohol misuse iii) identify the resources available in a community to help someone with an alcohol problem
6	SOLVENTS	SOLVENT ABUSE AFFECTS THE BODY	i) identify the short-term and long-term effects of solvent abuse
7	DRUGS	THERE ARE MANY FACTORS WHICH INFLUENCE OUR DECISIONS ABOUT THE USE OF DRUGS (INCLUDING TOBACCO, SOLVENTS AND ALCOHOL)	i) identify factors which will influence our decision to use or not use drugs (including tobacco, solvents and alcohol)
8	DRUGS	PEER PRESSURE IS ONE FACTOR WHICH CAN INFLUENCE OUR DECISIONS ABOUT THE USE OF DRUGS	i) explain how peer pressure influences decisions ii) demonstrate some ways of resisting peer pressure

ALCOHOL AND OTHER DRUGS

GRADE 5

LESSON NO.	THEME	CONCEPT	OBJECTIVES
1	DRUGS	ADVERTISING IS ONE FACTOR WHICH, CAN INFLUENCE OUR DECISIONS ABOUT THE USE OF DRUGS	i) explain how advertising influences decisions ii) identify places where you can find advertisements
2	WELL-BEING	THERE ARE MANY WAYS TO FEEL GOOD WITHOUT USING DRUGS	i) identify ways to make themselves and their friends feel good

GRADE 5

MENTAL AND EMOTIONAL WELL-BEING

MENTAL AND EMOTIONAL WELL BEING**GRADE: 5****LESSON: 1****THEME: RELATIONSHIPS**

CONCEPT: EFFECTIVE COMMUNICATION IS IMPORTANT IN A RELATIONSHIP

- PREPARATION:**
- 1 Materials for drawing
 - 2 Dress-up clothes
 - 3 A cassette tape of clues for the Treasure Hunt
 - 4 "Treasure" for the Treasure Hunt (Juice, buttons, etc)
 - 5 Hide cards for the Treasure Hunt
-

VOCABULARY: communication, speaking, listening

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
Students will be able to: i) describe effective speaking and active listening skills	Students: 1. List different ways of communicating	Background Information: Page ME44 This is a review of Grade 3, Lessons 5 and 6 Different ways include <u>Verbal</u> - speaking/listening - stones - radio - telephone - C B <u>Non-Verbal</u> - visually (arts crafts) - musically - drumming - dancing - sign language - inukshuk - drama, pantomime - international signs - reading - writing

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
	<p>2. Participate in Draw What You Hear Discuss</p> <p>3. Describe ways to make speaking more effective Discuss</p> <p>4. Describe ways to make listening more effective.</p>	<p>Select one student from the class to dress up in clothes from a dress-up box Divide the rest of the class into two groups One student from each group observes the dressed up student (out of sight from the rest of the class) for one minute The two observers return to their groups and describe what the dressed up student is wearing The other members of each group have to draw what they hear They cannot ask for clarification</p> <p>Compare the drawings of the two groups and discuss Emphasize the importance of observing, speaking clearly and listening</p> <p>Repeat, using a new dress up person and observers</p> <p>Brainstorm with the students things that make speaking more effective Ways should include</p> <ul style="list-style-type: none"> - facing the person who is listening - speaking clearly - watching people's reactions - thinking about what you have to say - checking to see if the person has understood <p>Brainstorm with the students ways to make listening more effective. Ways should include</p> <ul style="list-style-type: none"> - listening actively - facing the person who is speaking - listening for feelings - repeating what has been said to themselves - asking themselves if they understood - asking for clarification

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
<p>ii) demonstrate effective speaking and active listening skills</p>	<p>5. Participate in Student Activity 2, this time demonstrating effective speaking and active listening skills</p> <p>6. Participate in a Treasure Hunt.</p>	<p>Have students repeat Student Activity 2 This time the person who is speaking should do such things as checking to see if the listeners have understood ,</p> <p>Those listening may ask questions for clarification When the activity is finished discuss which was easier, the first time or the second time</p> <p>Prior to the lesson record all clues on a cassette tape or tapes Each clue should lead students to a particular location where they find a card and sign their name before going on to the next location (Class can be split into small groups) Clues should be fairly detailed, e.g., Go to the Home Ec room Look in the second cupboard on the left near the fridge Look on the top shelf</p> <p>At the last location, the teacher should leave something which all students can share, e g , buttons, juice, etc</p>

MENTAL AND EMOTIONAL WELL BEING**GRADE: 5****LESSON: 2****THEME: RELATIONSHIPS**

CONCEPT: EFFECTIVE COMMUNICATION IS IMPORTANT IN A RELATIONSHIP

PREPARATION: 1 Enlargements of the three characters (Activity Sheet ME48)
2 Prepare enough What Would They Say? worksheets for several groups (Activity Sheet ME48)

VOCABULARY: bully, sure, reaction, consequences, passive, aggressive, assertive

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
Students will be able to: i) describe different communication skills	Students: 1. Review effective speaking and listening skills 2. Observe different communication behaviours.	Background Information: Page ME44 From previous lesson List different communication behaviours - passive - aggressive - assertive Use appropriate tone, attitude and wording to demonstrate each of the above types of communication behaviours to students

OBJECTIVES

STUDENT ACTIVITIES

TEACHER NOTES

Identify each behaviour with a particular character Use an enlargement of the characters below



BILLY BULLY
(aggressive)



NORMAN NICE GUY
(passive)



SALLY SURE
(assertive)

Teachers may want to change names and phrases to make appropriate

OBJECTIVES**STUDENT ACTIVITIES****TEACHER NOTES**

3. Identify their reactions to the different communication behaviours

Ask students how the different types of communication behaviours make them feel

Record student reactions to the characters using an experience chart as illustrated:

Behaviour	Reaction of Listener to Person Asking	Reaction of the Person Asking
BILLY BULLY 	<ul style="list-style-type: none"> - angry - scared - I don't like it - worried 	<ul style="list-style-type: none"> - I don't think they like me - I want to be noticed
NORMAN NICE GUY 	<ul style="list-style-type: none"> - creep - OK - wimp 	<ul style="list-style-type: none"> - I want them to do it now, but I'm scared to ask
SALLY SURE 	<ul style="list-style-type: none"> - OK - happy - sometimes upset 	<ul style="list-style-type: none"> - good - they're doing it - that's what I wanted

OBJECTIVES

STUDENT ACTIVITIES

TEACHER NOTES

ii) describe the importance of effective communication in a relationship

4. Identify what each character would say in various situations

5. Discuss the consequences of the different communication behaviours on a relationship

Refer to Activity Sheet ME48

Have groups of students complete the speech balloons for the three characters in each situation Have each group share their results with the class using the sentence pattern

If I was BILLY BULLY, I would say

I would feel

My brother would feel

Ask students what they think would happen if one of their friends always acted like a bully, etc

Make an experience chart

Behaviour	Consequences
BILLY BULLY 	- loses friends - scares people - hurts people's feelings

OBJECTIVES

STUDENT ACTIVITIES

TEACHER NOTES

6. Make a bulletin board display of the three characters, the feelings associated with them and the consequences of the way they communicate

<p>NORMAN NICE GUY</p> 	<ul style="list-style-type: none">- gets upset because people won't do what he wants- doesn't tell people how he feels
<p>SALLY SURE</p> 	<ul style="list-style-type: none">- sometimes loses friends- lets her feelings be known- respects people

Use the faces for each character Write feelings or consequences on strips of paper Curl the strips around a pencil or scissors and stick them on the corresponding head, etc

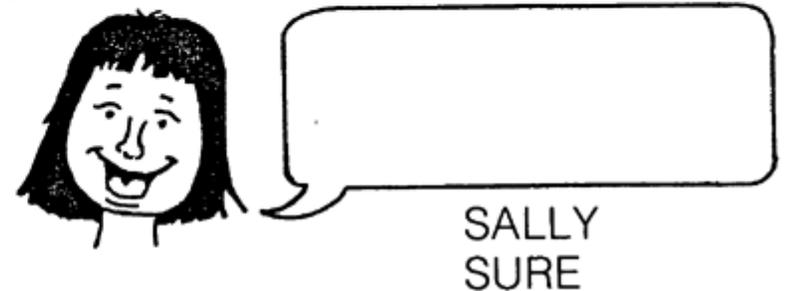
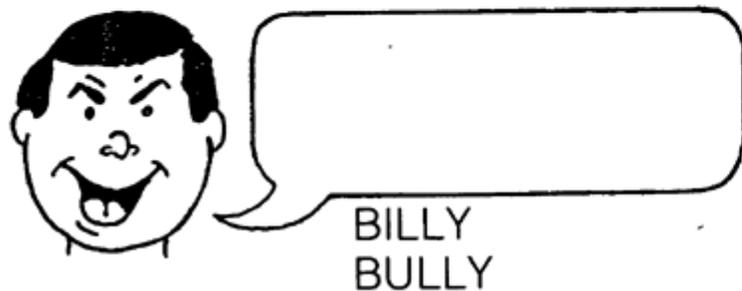
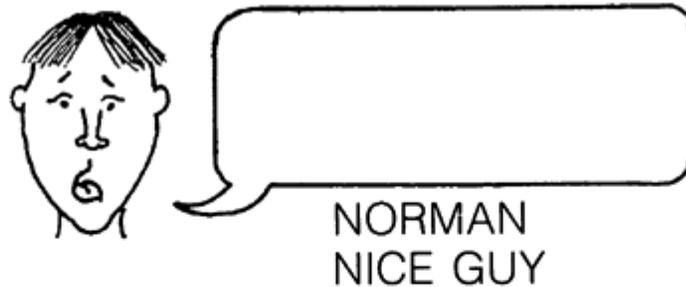


Students have to uncurl the strips to read them

WHAT WOULD THEY SAY? .

ME48

1. You want to watch your favourite T.V. show, but your brother wants you to play ball with him.
2. You think the cashier at the store has charged you too much money for your pop.
3. You want your friend to go to a movie. .
4. You are talking to your brother when someone interrupts you.
5. Your mother tells you to wear your parka, but you don't want to.
6. You are standing in the line up, when someone pushes in front of you.



MENTAL AND EMOTIONAL WELL BEING**GRADE: 5****LESSON: 3****THEME: RELATIONSHIPS**

CONCEPT: EFFECTIVE COMMUNICATION IS IMPORTANT IN A RELATIONSHIP

PREPARATION: 1 Speech bubbles from Lesson 2
2 Prepare enough sets for one between two students of Sally Sure Says-situation cards (Activity Sheet ME49)

VOCABULARY: advantages, disadvantages

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
Students will be able to: i) identify assertive communication skills	Students: 1. Review the different communication behaviours 2. From the speech bubbles, select the assertive examples 3. Identify advantages and disadvantages of assertiveness	Background Information: Page ME44 From previous lesson Have the students examine Sally Sure's message bubbles from Grade 5, Lesson 2. Ask students what the advantages/disadvantages are of being assertive List student responses on an experience chart as illustrated:

OBJECTIVES

STUDENT ACTIVITIES

TEACHER NOTES

<p>ii) demonstrate assertive communication skills</p>	<p>4. Identify ways of communicating assertively</p> <p>5. Practise ways of communicating assertively.</p>	<table border="1" data-bbox="1228 292 2005 552"><thead><tr><th data-bbox="1228 292 1621 332">Advantages</th><th data-bbox="1621 292 2005 332">Disadvantages</th></tr></thead><tbody><tr><td data-bbox="1228 332 1621 552">- let's a person say 'Yes' or 'No' without feeling upset or guilty - shows respect - lets a person feel positive about him/herself</td><td data-bbox="1621 332 2005 552">- sometimes people don't like it when someone is assertive</td></tr></tbody></table> <p>Make a list of things Sally Sure, might say</p> <p>Have students respond using the sentence patterns.</p> <p>I know that you want to _____, but _____ Excuse me, but _____ Thank you, but _____ Could you please _____</p> <p>Teachers can change the suggested phrases to make them appropriate. Emphasize that the tone of voice which people use is also important.</p> <p>Refer to Activity Sheet ME49</p> <p>Give pairs of students a number of situation cards. The students have to take turns responding assertively. Write the class responses in a speech bubble.</p>	Advantages	Disadvantages	- let's a person say 'Yes' or 'No' without feeling upset or guilty - shows respect - lets a person feel positive about him/herself	- sometimes people don't like it when someone is assertive
Advantages	Disadvantages					
- let's a person say 'Yes' or 'No' without feeling upset or guilty - shows respect - lets a person feel positive about him/herself	- sometimes people don't like it when someone is assertive					

SALLY SURE SAYS

ME49

<p>1. Your friend is playing with a gun. You are afraid the gun might go off. .</p>	<p>2. You have some muskrat skins/sealskins to sell. The store clerk says he will give you 50 cents a skin. You know they are worth more than that.</p>
<p>3. You put money in a game at the Arcade. The machine doesn't work.</p>	<p>4. You order a hamburger and french fries at the take out. When you get home, you find you have no french fries.</p>
<p>5. You rent a video from the store. When you get it home, it doesn't work properly.</p>	<p>6. You are playing on the climbing frame when someone in your class comes along and tells you to get off.</p>

MENTAL AND EMOTIONAL WELL BEING**GRADE: 5****LESSON: 4****THEME: RELATIONSHIPS**

CONCEPT: EFFECTIVE COMMUNICATION IS IMPORTANT IN A RELATIONSHIP

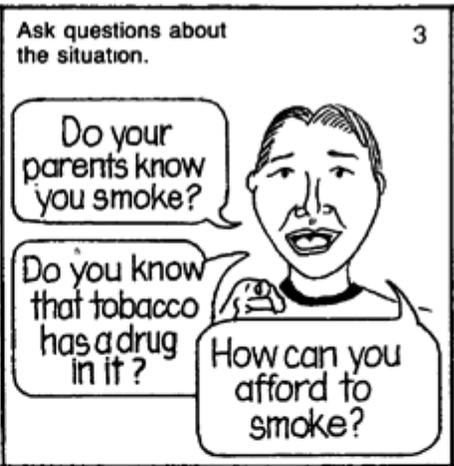
PREPARATION: 1. Overhead transparencies of Saying No and Follow the Steps (Activity Sheets ME50 and ME51)
2. Prepare a class set of Follow the Steps worksheet (Activity Sheet ME51),**VOCABULARY:** problem, opinion, consequences, alternative

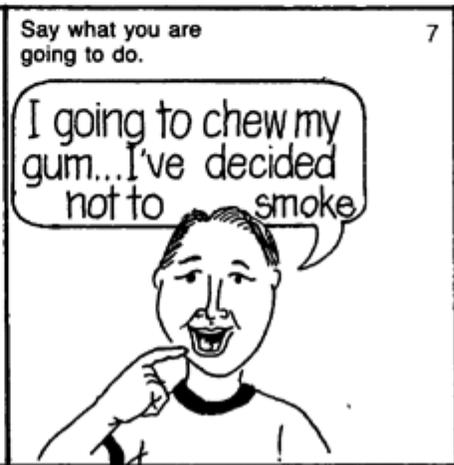
OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
Students will be able to: i) identify steps in a refusal process	Students: 1. Review assertive communication behaviours. 2. Roleplay saying no in a given situation. 3. Discuss,ways of making it easier to say no.	Background Information: Page ME44 From previous lesson. Have one student offer another a cigarette The second student has to refuse assertively. Ask students what else they could do to make it easier to say no Ways might include: - understanding the problem - not being afraid to state your opinion - practising saying no when alone

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
ii) practise the steps of the refusal process	4. Identify steps which help make it easier to say no.	<p>Refer to Activity Sheet ME50</p> <p>Using the overhead transparency, go through each step with the students. Have students respond using the sentence patterns:</p> <p>What is the problem?</p> <p>(1) Should I _____ , or should I _____</p> <p>(2) Thanks but _____</p> <p>(3) Do you know _____</p> <p>(4) I feel _____</p> <p>(5) I think _____</p> <p>(6) We could _____ , or we could _____</p> <p>(7) I've decided to _____</p> <p>Some of these patterns have been taught prior to this lesson.</p>
	5. Demonstrate the steps in the refusal process.	<p>Refer to Activity Sheet ME51.</p> <p>Using the blank overhead transparency, go through each step with the students, filling in the speech balloons. Have students suggest a problem. It could be:</p> <ul style="list-style-type: none"> - skipping school - stealing something - playing on a construction site - sniffing gas/glue - telling lies - using drugs
	6. Practise using the steps in the refusal process.	<p>Give each student Activity Sheet ME51</p> <p>Ask them to select a problem which they have to deal with and work through the steps in the refusal process. Volunteers can share theirs with the rest of the class by reading them aloud or by acting them out with a partner.</p>

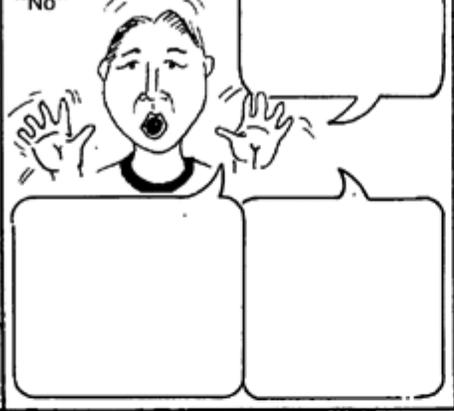
SAYING "NO"!

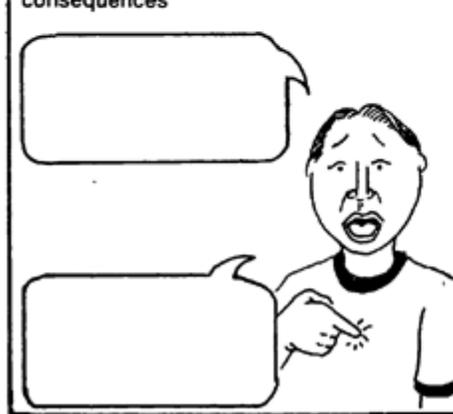
Problem: Your friend offers you a cigarette, but you don't want to smoke.

<p>1 Understand the problem.</p>  <p>Here. Have a cigarette.</p> <p>He wants me to smoke, but I don't want to.</p>	<p>2 Practise saying "No".</p>  <p>No thanks. I don't want to.</p> <p>I know that smoking is unhealthy. I'm staying fit for the hockey team.</p> <p>Thanks but no thanks. I've decided not to smoke.</p>	<p>3 Ask questions about the situation.</p>  <p>Do your parents know you smoke?</p> <p>Do you know that tobacco has a drug in it?</p> <p>How can you afford to smoke?</p>	<p>4 State your opinion or feelings.</p>  <p>I feel uncomfortable about smoking. I know my parents wouldn't like it.</p>
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<p>5 State the consequences.</p>  <p>My parents will be mad at me.</p> <p>Smoking causes diseases of the heart and lungs.</p>	<p>6 Suggest an alternative.</p>  <p>We could go for a ride on our bikes.</p> <p>Here. Have some gum instead.</p>	<p>7 Say what you are going to do.</p>  <p>I going to chew my gum...I've decided not to smoke</p>	<p>8 Leave the situation.</p>  <p>See you' around!</p>
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FOLLOW THE STEPS

<p>Understand the problem</p>  <p>Illustration of two people. The person on the left is speaking, and the person on the right is listening. There are two empty speech bubbles.</p>	<p>Practise saying "No"</p>  <p>Illustration of a person shouting "No" with their hands raised. There are two empty speech bubbles.</p>	<p>Ask questions about the situation</p>  <p>Illustration of a person asking questions with their hands raised. There are two empty speech bubbles.</p>	<p>State your opinion or feelings</p>  <p>Illustration of a person speaking with their mouth open. There is one empty speech bubble.</p>
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<p>State the consequences</p>  <p>Illustration of a person pointing to the side. There are two empty speech bubbles.</p>	<p>Suggest an alternative.</p>  <p>Illustration of a person speaking with one hand raised. There are two empty speech bubbles.</p>	<p>Say what you are going to do.</p>  <p>Illustration of a person speaking with one hand near their mouth. There is one empty speech bubble.</p>	<p>Leave the situation.</p>  <p>Illustration of a person waving their hand. There is one empty speech bubble.</p>
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OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
	<p>3. Give reasons for companies advertising their products.</p> <p>4. Identify techniques that advertisers use to persuade people to buy their product. Discuss.</p> <p>5. Use sample advertisements to identify techniques used by specific products.</p>	<p>Ask students why companies advertise. Reasons should include:</p> <ul style="list-style-type: none"> - to provide information - to persuade people to buy that product <p>Have students respond using the sentence pattern:</p> <p>Advertisements _____</p> <p>Collect examples of advertisements that use a variety of techniques. Have students identify and discuss the techniques used. Techniques should include:</p> <ul style="list-style-type: none"> - people having a good time (lifestyle) - making people feel guilty - romance - jingles - bright/fun/humour - mystery - speed/excitement - making people feel hungry/thirsty - famous people - making people believe everyone else uses it <p>Either tape a number of sample advertisements from the T.V. or collect (or have students collect) a number of sample advertisements from magazines.</p> <p>Students identify the techniques used in each advertisement.</p> <p>Emphasize that more than one technique may be used in one advertisement.</p>

OBJECTIVES**STUDENT ACTIVITIES****TEACHER NOTES**

6. Make an advertising collage Buy, Buy, Buy.

Have students cut out magazine/newspaper advertisements to make a collage. They can label the different techniques used and stick them around the collage, e.g.,



MENTAL AND EMOTIONAL WELL BEING

GRADE: 5**LESSON: 6****THEME: DECISION-MAKING**

CONCEPT: ADVERTISING IS DESIGNED TO INFLUENCE DECISIONS

PREPARATION: 1. Materials for designing an advertisement

VOCABULARY: technique, appealing, persuasive

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
Students will be able to: i) practise designing an advertisement using one or more persuasion techniques	Students: 1. Review advertising techniques. 2. Design a persuasive advertisement.	Background Information: Page ME44 to ME45 From the previous lesson. In small groups students select either a new product they want to sell or a community event to promote. Students either draw/paint an advertisement for a magazine or prepare an advertisement for a T.V. /radio spot. When they have finished they present it to the rest of the class.

OBJECTIVES**STUDENT ACTIVITIES****TEACHER NOTES**

3. Identify the techniques used in the advertisements and evaluate their appeal. Discuss.

Number all the advertisements which have been prepared. Have students identify the technique(s) used in each ad; evaluate its appeal and give reasons to support their opinion.

Have students record their responses using an experience chart as illustrated.

Advertisement #1	Technique Used	Is it appealing?	Why/ <u>Why</u> Not?

When the students have completed the activity, discuss with them the importance of making the product appealing. Discuss why the public has to be aware of advertising techniques.

GEORGIE'S BAD DAY!

Georgie woke up. He was lying on the floor. It was ten to nine. Oh no! He'd slept in! He knew it was going to be a miserable, rotten, awful day.

He was hungry. He thought he'd have some toast. Oh no! His brother had eaten all the bread!

What a miserable, rotten, awful day.

His father said if he got dressed quickly, he'd give him a ride to school. Oh no! He could only find one boot!

What a miserable, rotten, awful day. .

He borrowed his brother's boots and ran outside. Oh no! The skidoo wouldn't start!

What a miserable, rotten, awful day.

He got to school late. The other kids had already picked their library books. Oh no! The ones he wanted were already gone! .

What a miserable, rotten, awful day.

At recess, he thought he'd play tag with his friend. Oh no! She was already playing with someone else and didn't want to play with him.

What a miserable, rotten, awful day.

In the gym they played basketball. He kept dropping the ball. Oh no! Mary Martin called him "Dummy."

What a miserable, rotten, awful day. .

When he got home, his mother asked him to take the garbage outside. Oh no! The bag- burst and he had to pick up all that yukky stuff

What a miserable, rotten, awful day.

He thought he'd go to the store. He bought an apple and some juice. Oh no! It cost \$2.50 and he only had \$1.75.

What a miserable, rotten, awful day.

When he got home, he saw there was someone drinking tea with his mother. Oh no! It was his teacher with his report card.

What a miserable, rotten, awful day.

"Your teacher says that you have done very well in math; you work hard at language; you really enjoy science and art. She says you always offer to help others and she's happy to have you in her class!"

Wow! Can you believe that? What a wonderful, fantastic, super day!

MENTAL AND EMOTIONAL WELL BEING

GRADE: 5**LESSON: 8****THEME: COPING**

CONCEPT: SPECIFIC ACTIONS CAN BE TAKEN TO HELP DEAL WITH STRESS

PREPARATION: 1. Stress books from Grade 5, Lesson 7

VOCABULARY: stress

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES				
Students will be able to: i) identify specific ways of dealing with stress	Students: 1. Identify how they deal with stress.	Background Information: Page ME45 to ME47 Ask students to think about a time when they felt stress. Have them identify what they did to deal with the stress and feel better again. Brainstorm ways of dealing with stress. Student responses can be added as another column to the experience chart started in Grade 5 Lesson 8 as illustrated: <table border="1" data-bbox="1228 1128 1932 1307"><tr><td data-bbox="1228 1128 1596 1218">Body Reaction</td><td data-bbox="1596 1128 1932 1218">Ways of Dealing with stress</td></tr><tr><td data-bbox="1228 1218 1596 1307"></td><td data-bbox="1596 1218 1932 1307">- watch T V - listen to music</td></tr></table>	Body Reaction	Ways of Dealing with stress		- watch T V - listen to music
Body Reaction	Ways of Dealing with stress					
	- watch T V - listen to music					

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
	<p>2. Complete the Stress book.</p>	<p>Include:</p> <ul style="list-style-type: none"> - go for a walk/jog/bike ride/skating - read a book/comics - talk to someone - ask for help - paint - sing - do breathing exercises (refer to Teacher Notes, Activity 3) <p>Teachers may have to help students identify stress reducers with which they are not familiar, such as breathing exercises.</p> <p>Have students respond using sentence strips and a pocket chart as illustrated:</p> <p>What do you do when you feel _____</p> <p>When I feel _____ I _____</p> <p>From Grade 5, Lesson 7.</p> <p>On the back of each page, have students write down something they can do to help themselves when they have these feelings.</p> 

GRADE 5

TEACHER BACKGROUND INFORMATION

MENTAL AND EMOTIONAL WELL-BEING

MENTAL AND EMOTIONAL WELL BEING

Mental and emotional well-being refers to how a person feels, thinks and acts. If s/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. People derive those feelings about themselves, in large part, from the attitudes towards them of significant people in their lives.

Poor Mental and Emotional Well-Being

Low Self-Esteem



Significant People

- family
- friends
- peers
- teachers
- elders
- church leaders
- community members
- other people

Attitudes

- anger
- rejection
- distrust
- discouragement
- "put downs"

Behaviours

- failure
- fear
- guilt
- aggression
- withdrawal
- mistrust

Healthy Mental and Emotional Well-Being

High Self-Esteem



Significant People

- family
- friends
- peers
- community members
- teachers
- elders
- church leaders
- other people

Attitudes

- love
- care
- acceptance
- encouragement
- trust

Behaviours

- success
- enthusiasm
- responsibility
- creativity
- co-operation
- ability to cope

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 self-esteem.. Together with the acquisition of decision-making, communication and coping skills, they 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-esteem.

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 all 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 in 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 their 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.

As opportunities present themselves in class, school or community, teachers should encourage students to demonstrate the skills and to apply the concepts. In this way, students will continue to develop positive attitudes, and will also see the relevance of what they learn to their everyday lives.

The teacher can work with individual students to help them improve in areas where they are particularly weak. Each student can be helped to set a personal goal, such as “I will try to be friendlier to other students.” The teacher can help each student identify concrete ways to work towards the goal and can, together with the student, monitor progress.

E g , CLIMBING THE LADDER

NAME: _____

be friendlier to other people

help people who need some help

take turns

share my toys, crayons

COMMUNICATION

Communication means to give and receive messages. Communication involves more than just the words people say. The way a person looks, their tone, facial expressions and body posture all give messages. These messages are an exchange of information, ideas or feelings between people. Communication is always two-way - one person giving and the other receiving. The many different forms of communication fall into two categories verbal and non-verbal.

Verbal

- talking
- listening
- songs
- poems
- stories
- music

Non-verbal

- body language
- facial expressions
- posture
- appearance
- painting/crafts
- music
- writing and other symbols

Good communication skills enhance relationships with family and friends and make the individual an effective member of society. Communication is a learned skill.

COMMUNICATION BEHAVIOURS

Tone, attitude, wording and posture help determine whether behaviour is passive, aggressive or assertive. Assertive behaviour helps build harmonious relationships, helps maintain a positive self-concept and is most effective. Assertive behaviour is also very important in the refusal process.

REFUSAL PROCESS

Peer pressure awareness and decision-making skills are necessary to the refusal process. Individuals are often confronted with conflicting messages from the media, friends, schools, family and other groups. The ability to assess situations and issues and to behave assertively will enable informed decision-making by the individual regarding health and value issues.

Steps of the Refusal Process

1. Understand the problem
2. Practise saying 'No'
3. Ask questions about the situation
4. State your opinions or feelings
5. State the consequences
6. Suggest an alternative
7. Say what you are going to do
8. Leave the situation

DECISION-MAKING

There are many ways to make a decision including:

- letting others do it for you
- happenstance (tossing a coin, etc.)
- the formal method

The formal method can be used by individuals or groups (class, work, family, government, parish council, recreational, etc.). The following are the steps of the formal decision-making process which is used in this program.

1. Identify the problem
2. Identify the choices
3. Identify the consequences
4. Identify what is important to the decision maker(s)
5. Decide (groups can use a formal or informal voting procedure)
6. Evaluate

Step 4 is influenced by many factors including the views of family members, the school, religions and other societal groups. An individual's private reflections and the possible consequences of a decision will also affect the decision.

ADVERTISING

A study of advertising enhances the individual's ability to evaluate advertising information and make sound decisions. This awareness can be developed by studying advertising techniques and the sentiments they appeal to. Some of these are:

- appeals to basic needs such as fear, love, security etc .
- lifestyle (good times, country environments, adventures etc.)
- romance
- guilt
- bright/fun/humour/jingles
- mystery
- famous people
- normalcy (everyone has one)

Companies have large budgets for analyzing marketing techniques and their effects. The public must be able to counteract these messages with good judgement. Is the material objective or are they using a technique that is not related to the product? Are the research techniques valid? Are they supported by reputable non-affiliated professionals?

STRESS

Stress is "the body's response to any demands made on it by the environment and the people in it." (Hans Selye) Medically, stress is the rate of wear and tear on the body. Stress occurs in various forms - mental, emotional and physical. It can be positive or negative Stressors are those things that produce stress.

Positive stressors

- school dance
- birth in the family
- winning a prize
- special holidays
- first day of school

Negative stressors

- death in the family
- failing a grade
- fighting with friends
- divorce of parents
- change of schools
- confusion about future
- social isolation
- low self-esteem

Positive stress helps us do things well i.e. perform. Negative stress can harm someone who has not developed ways to cope with it. Awareness of stress, the acceptance of self and limits and the responsibility of developing coping mechanisms are important to the individual wanting to avoid the consequences of negative stress.

AWARENESS OF STRESS

The most common signals of negative stress include:

- abnormal eating practices
- pupils of the eyes dilate
- breathing speeds up
- heart beats faster
- blood pressure rises
- hearing increases
- muscles tense
- blood sugar increases (more energy)
- adrenalin is secreted
- palms become sweaty
- butterflies in stomach
- headache
- digestion slows down
- disturbed sleep pattern
- skin rashes may occur
- dizziness
- behavioural idiosyncracies (twirling hair, scratching, jiggling leg etc.)
- extreme changes in eating, smoking, drinking/drug habits
- nervous laughter
- trembling
- weight gain/loss
- headaches/migraines
- boredom, apathy
- loss of memory
- loss of rational/logical thinking
- lack of concentration
- preoccupation/obsession

- confusion
- blowing things out of proportion.
- hypersensitivity to criticism
- self-centeredness
- suspicion and mistrust
- insomnia
- hypochondria
- day dreams and fantasy
- poor emotional control (irritability, moodiness)
- helplessness and dependency
- absenteeism
- easily distracted and interrupted
- breakdown of communication
- procrastination
- job dissatisfaction
- decrease in creativity, spontaneity
- withdrawal (fear of the situation causes the individual to use excessive escape continuous television, excessive drinking, etc.)

Not even young children are immune from pressure. Teachers should be aware and take steps to help relieve factors at school that may cause too much stress on a particular student.

If the individual does not learn to deal with stress, serious physical and/or mental problem conditions could result. The following is a table listing mental disorders. They may be completely physical (physiological) in cause: they may be due entirely to stress and an individual's inability to cope with it (psychosomatic); or a combination of both.

Some problem conditions related to stress

Problem	Brief Description
<i>addiction</i>	- dependence on mood-altering substances eg. alcohol, codeine, coffee etc.
<i>anxiety</i>	- a feeling of extreme apprehension - symptoms may include: heart pounding, sweating palms, loss of appetite, insomnia
<i>anorexia nervosa</i>	- extreme anxiety may lead to loss of appetite or to seeing oneself as too fat - malnutrition results - mainly seen in teenage girls
<i>bulimia</i>	- extreme binge eating, followed by self- induced vomiting
<i>depression</i>	- a feeling of chronic tiredness, hopeless ness, apathy - often with physical symptoms - may lead to suicidal tendencies
<i>hypertension</i>	- <i>associated</i> with high blood pressure - a factor in both coronary heart disease and stroke
<i>mental illness</i>	- escape from reality as in neuroses and psychosis
<i>psychosomatic illness</i>	- emotional factors that contribute to illnesses such as ulcers, asthma, colitis

INAPPROPRIATE METHODS OF STRESS MANAGEMENT

- denial, suppression
- displacement (kick the dog)
- humour (gallows type, self-deprecating)
- projection
- fantasy
- selective memory

APPROPRIATE METHODS OF STRESS MANAGEMENT

There are physical, psychological, spiritual and organizational methods of stress management including:

- talking problems over with family members or friends
- organizing one's time
- prioritizing work
- accepting things one cannot change
- being realistic (realistic goals)
- getting enough rest and sleep
- eating balanced meals
- exercising (mild, strenuous, muscle tension reducing)
- developing an emotional support system (family and friends)
- diet
- reordering of values
- medical examination
- meditation
- resolution of interpersonal conflicts
- prayer
- time management
- arranging for enjoyable (relaxing) activities-at least daily
- developing and using assertiveness skills
- making use of humour
- being an encouraging person
- arranging for variety in your life
- job preparedness
- control of finances (budget plan)

GRADE 5

GROWTH AND DEVELOPMENT

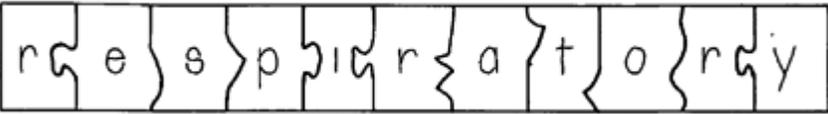
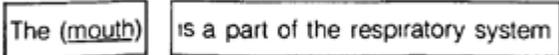
GROWTH AND DEVELOPMENT**GRADE: 5****LESSON: 1****THEME: BODY SYSTEMS**

CONCEPT: THE RESPIRATORY SYSTEM IS ESSENTIAL FOR GETTING OXYGEN INTO AND CARBON DIOXIDE OUT OF THE BODY

- PREPARATION:**
- 1 A child-size body outline and detachable parts (Activity Sheets GD36A, B, C, D)
 - 2 Materials for mobile
 - 3 Arrange with a hunter for students to examine the respiratory parts of animals
 - 4 An old x-ray of the lungs from the nursing station
 - 5 Prepare a class set of My Respiratory System worksheet (Activity Sheet GD37A)
 - 6 Make the word 'respiratory' into a puzzle
-

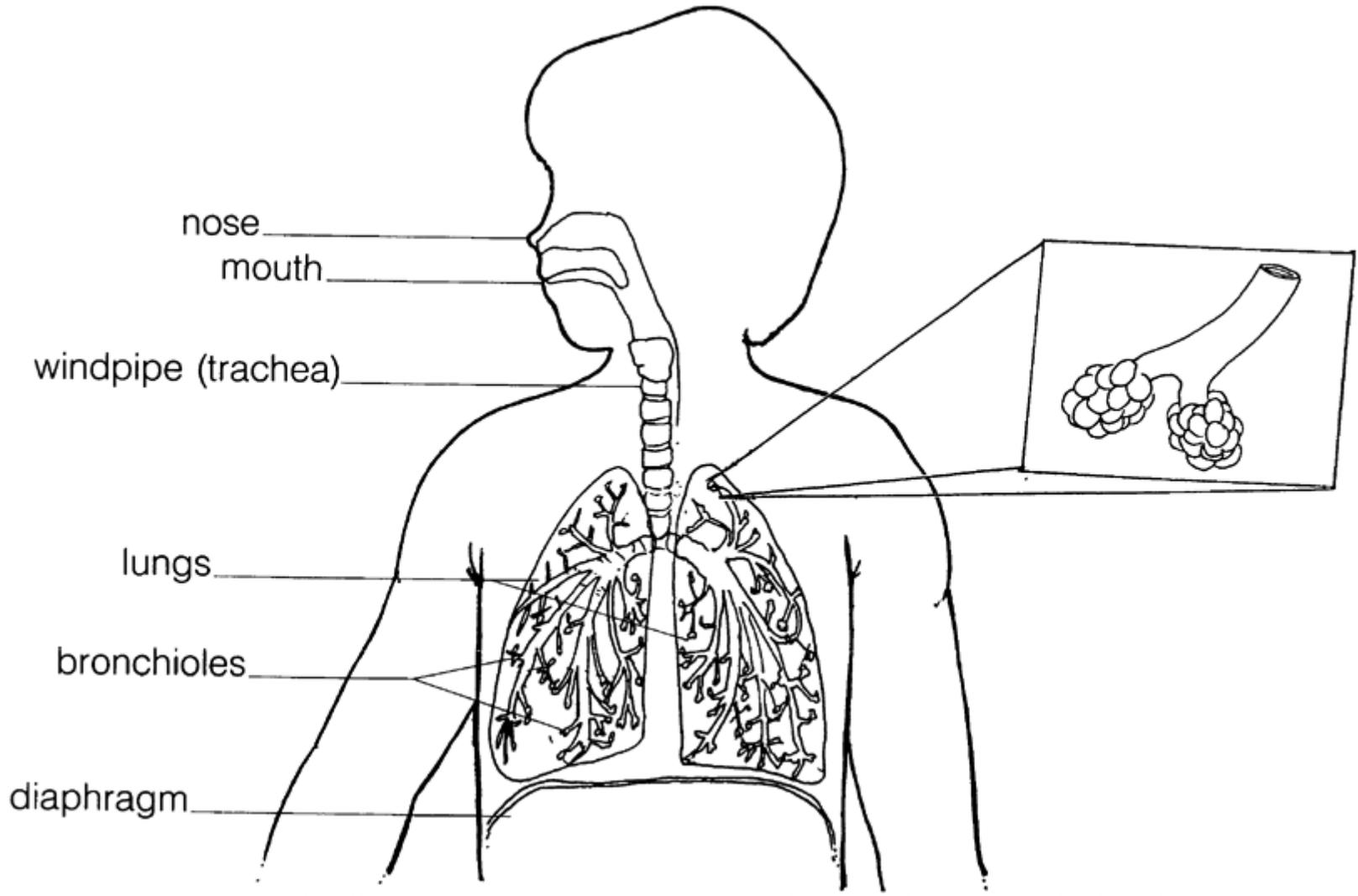
VOCABULARY: respiratory, oxygen, windpipe, bronchioles, air sac, diaphragm

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
Students will be able to: i) name and locate the main parts of the respiratory system	Students: 1. Define the term respiratory.	Background Information Page GD61 to GD62 This lesson relates to Science, Air and Air Pressure Units. Use a dictionary and discussion to define the term. Students should understand that the respiratory system is the system of organs that help exchange oxygen and carbon dioxide between the body and the environment. Use the dictionary to find other words with the same stem as respiratory, e.g., respiration, respire, respirator.

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
	<p>2. Make the word respiratory from individual letters. Say the word when it is completed.</p> <p>3. Locate their own respiratory systems.</p> <p>4. Use the child-size body outline and detachable respiratory parts to name and locate the main parts of the respiratory system.</p>	<p>Print the word respiratory in large letters. Cut the letters up individually to make a puzzle. Hide the letters. The students have to find the letters and put them back together again, e.g.,</p>  <p>Have students breathe in and out drawing attention to what is happening in their bodies. Can they identify some parts of their respiratory system?</p> <p>Most of the space inside the chest cavity is occupied by the lungs - one on each side. When you breathe in, the diaphragm drops down, leaving more space for more air. When you breathe out, the diaphragm moves up leaving less space.</p> <p>Refer to Activity Sheets GD36A, 36B, 36C and 36D</p> <p>Ask students if they know the names of any parts of the respiratory system. Put the child-size body outline on the board. Have students name and place the following parts on the outline:</p> <ul style="list-style-type: none"> - mouth - nose (nasal cavities) - windpipe (trachea) - bronchioles - lungs - air sacs - diaphragm <p>Have students respond using sentence strips and a pocket chart as illustrated:</p> 

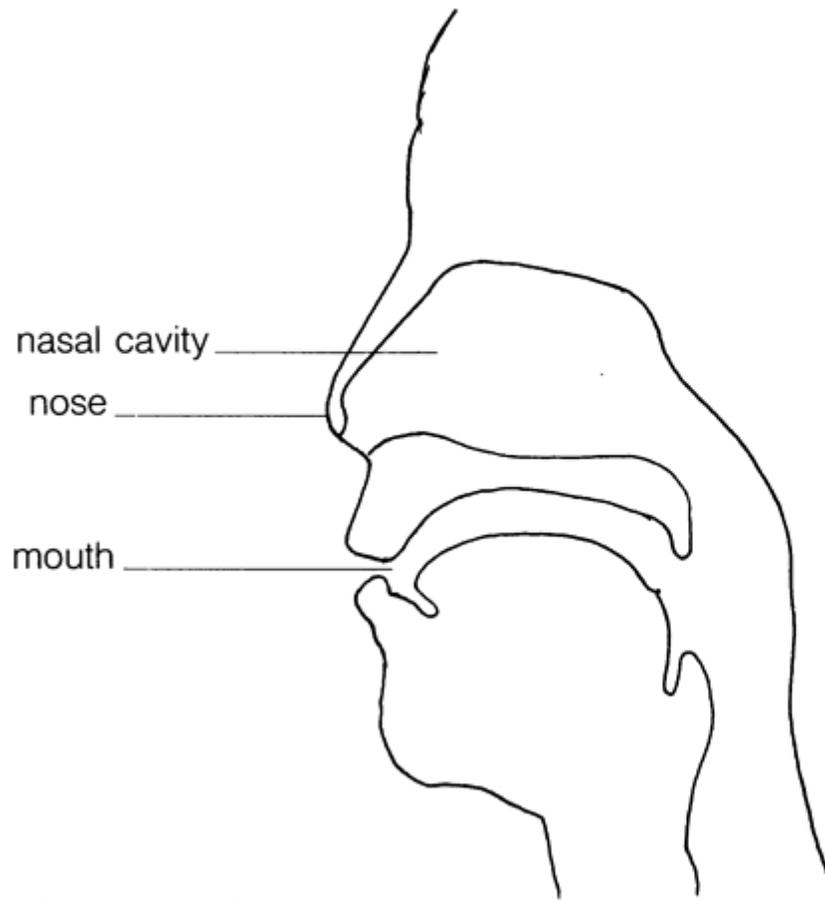
OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
	<p>5. Make a mobile of the respiratory system parts. Say the name of each part.</p> <p>6. Examine a chest x-ray and identify the different parts of the respiratory system.</p> <p>7. Examine the respiratory parts and their location in animals.</p> <p>8. Complete the My Respiratory System worksheet.</p>	<div data-bbox="1024 256 1850 529" data-label="Diagram"> <pre> graph TD A[respiratory system] --- B[mouth] A --- C[nose] A --- D[lungs] A --- E[etc.] </pre> </div> <p>Ask the nursing station for an old x-ray of the lungs. Have students identify the lungs and bronchioles.</p> <p>Ask a hunter (or a butcher) to provide the class with the respiratory parts of an animal. Or take the class to observe a hunter butchering an animal. Have the students identify the parts of the respiratory system.</p> <p>Refer to Activity Sheet GD37A and the Answer Guide on Activity Sheet GD37B.</p>

THE RESPIRATORY SYSTEM



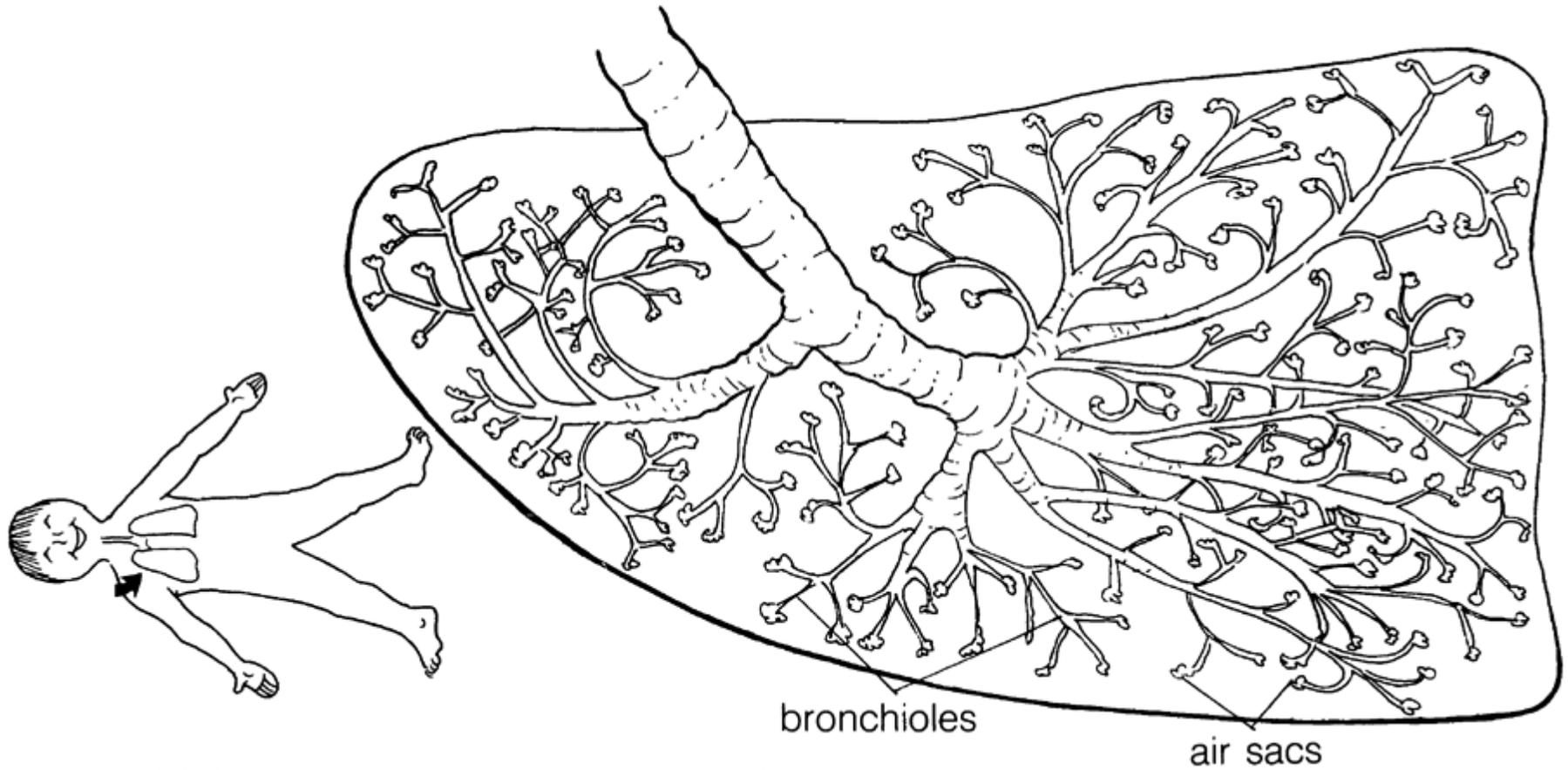
NOSE AND THROAT

Colour the inside of the nose and mouth pink.
Cut out and position on the profile of the head.



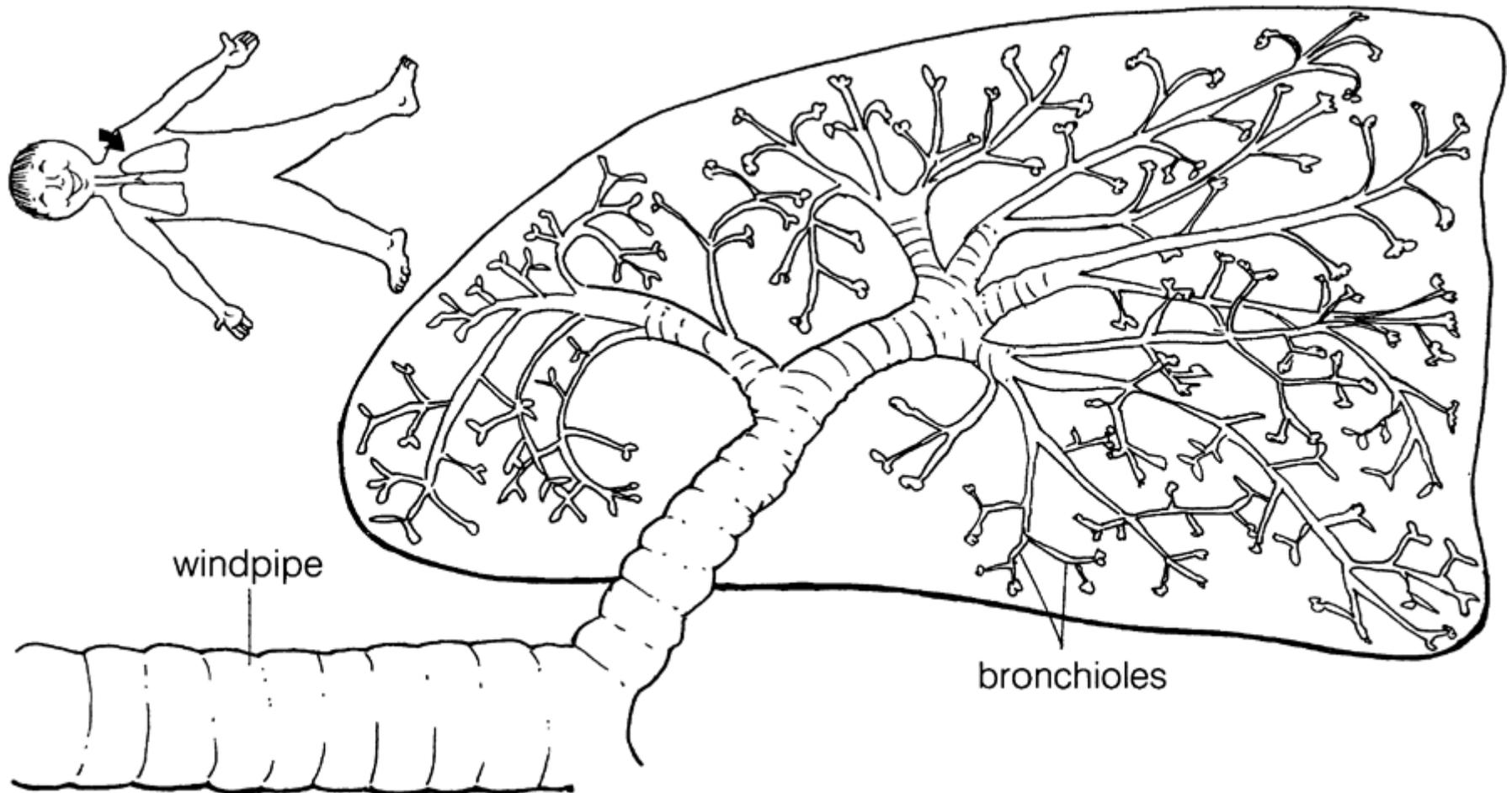
RIGHT LUNG AND BRONCHIOLES

Colour the lung pink. Colour the windpipe and bronchioles light blue. Cut out and position so that this windpipe joins the windpipe on Activity Sheet GD36D.



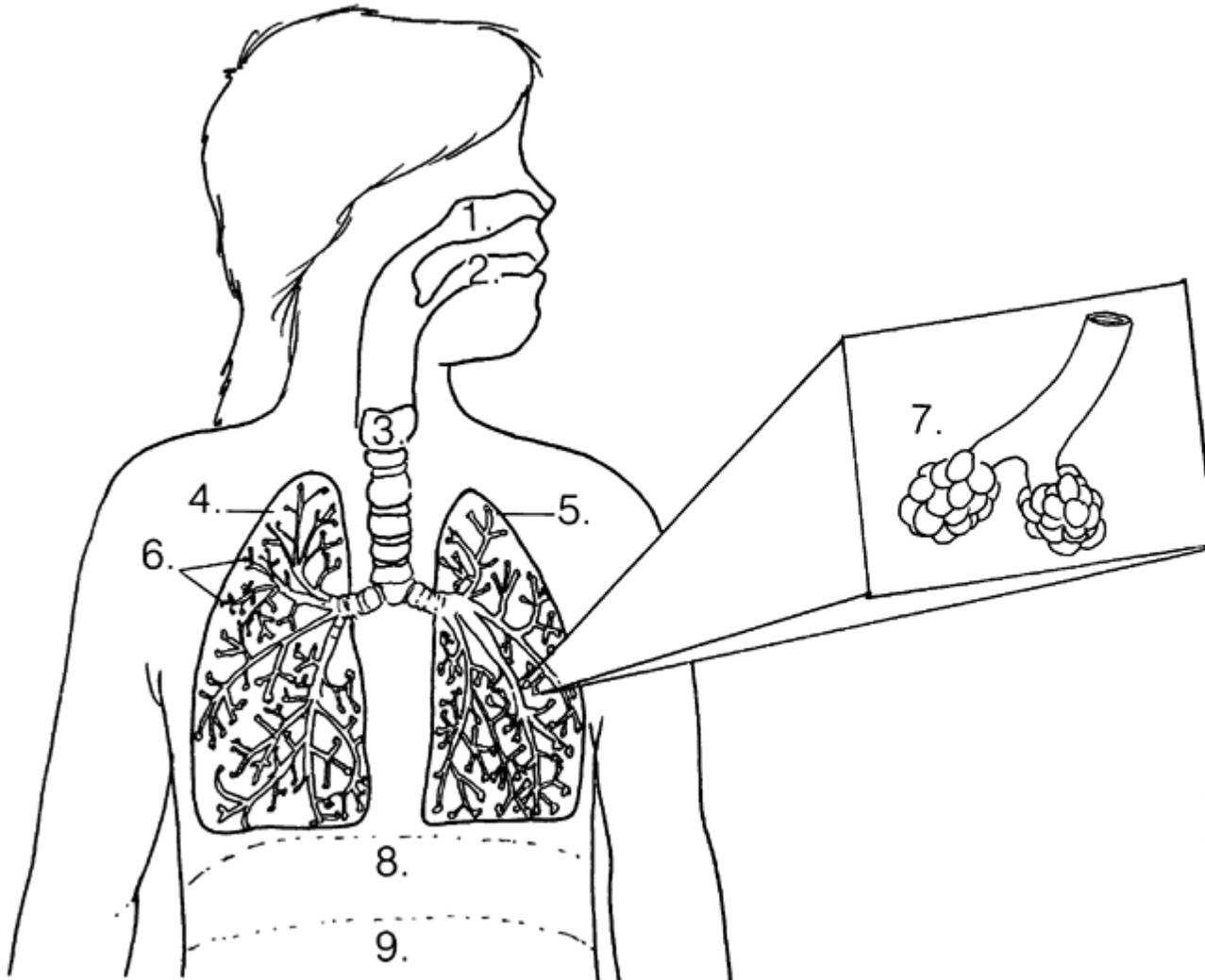
LEFT LUNG, WINDPIPE (TRACHEA) AND BRONCHIOLES

Colour the lung pink. Colour the windpipe and bronchioles light blue.
Cut out and position to join with lung on Activity Sheet GD36C.



MY RESPIRATORY SYSTEM

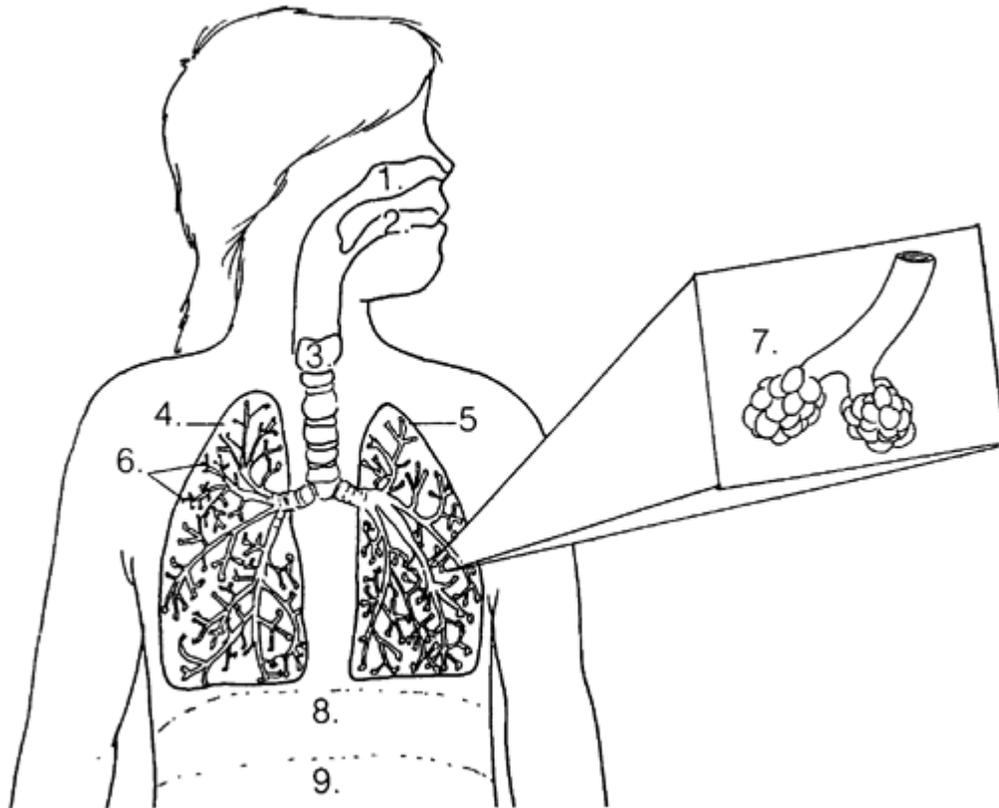
Name the parts of the respiratory system.



- 1. _____
- 2. _____
- 3. _____
- 4. _____
- 5. _____
- 6. _____
- 7. _____
- 8. _____
- 9. _____

MY RESPIRATORY SYSTEM

(Answer Guide)



1. nose (nasal cavity)
2. mouth
3. windpipe (trachea)
4. right lung
5. left lung
6. bronchioles
7. air sac
8. diaphragm (breathing in)
9. diaphragm (breathing out)

GROWTH AND DEVELOPMENT**GRADE: 5****LESSON: 2****THEME: BODY SYSTEMS**

CONCEPT: THE RESPIRATORY SYSTEM IS ESSENTIAL FOR GETTING OXYGEN INTO AND CARBON DIOXIDE OUT OF THE BODY

- PREPARATION:**
1. Clear plastic bottle, plastic straw, 2 balloons, rubber bands
 2. Pocket chart and sentence strips of Respiratory Function Cards (Activity Sheet GD38)
 3. Prepare enough for one between two students of the Respiratory Function Cards (Activity Sheet GD38)
 4. Overhead transparency of Activity Sheet GD39
 5. A candle, dish, far and matches
 6. Invite a fireman to demonstrate breathing apparatus
 7. Prepare a class set of Where's My Mask? (Activity Sheet GD40)
-

VOCABULARY: air, oxygen, carbon dioxide, muscle

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
Students will be able to: i) describe the functions of the respiratory system	Students: 1. Observe the inside of a partner's nose.	Background Information: Page GD61 to GD62 Throughout this lesson, teachers should continue reinforcing the term respiratory. The inside of the nose is moist and has hairs. The hairs clean the air and the moisture warms it.

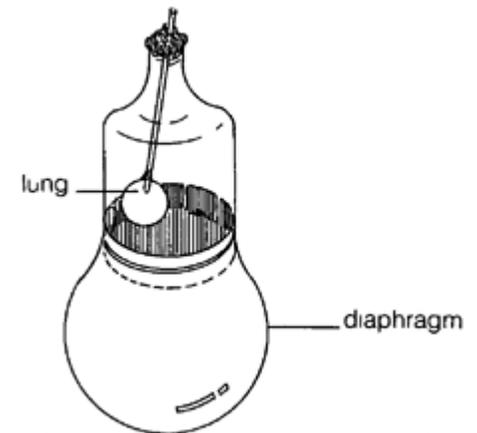
OBJECTIVES**STUDENT ACTIVITIES****TEACHER NOTES**

2. Observe a simulation of the lungs and diaphragm.

Make a simple model of a lung (see illustration):

- use a clear plastic bottle
- make a hole in the lid large enough for a plastic straw
- put the straw in the hole
- use plasticene to make it airtight
- attach a balloon to the straw with a rubber band
- cut away the bottom of the bottle
- stretch another balloon across the bottom of the bottle with a rubber band

To make the lungs work, press the diaphragm up. The air will come out the straw and the balloon will get smaller. When you let the diaphragm move out, the opposite happens.



OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES														
	<p>3. Describe the functions of the different parts of the respiratory system.</p> <p>4. Match function cards to the appropriate respiratory parts on the child-size body outline.</p> <p>5. Match the name of the respiratory part to its function.</p> <p>6. Trace the journey of the air from outside the body to the lungs.</p>	<p>Use sentence strips and a pocket chart as illustrated:</p> <table border="1" data-bbox="1178 321 1982 727"> <tbody> <tr> <td>The nose</td> <td>cleans and warms the air</td> </tr> <tr> <td>The mouth</td> <td>takes in air and lets it out</td> </tr> <tr> <td>The windpipe</td> <td>moves air in and out of the lungs</td> </tr> <tr> <td>The bronchioles</td> <td>move air in and out of the air sacs</td> </tr> <tr> <td>The air sacs</td> <td>move oxygen into the blood</td> </tr> <tr> <td>The air sacs</td> <td>take carbon dioxide out of the blood</td> </tr> <tr> <td>The diaphragm</td> <td>is a muscle that helps in breathing</td> </tr> </tbody> </table> <p>Refer to Activity Sheet GD38.</p> <p>Prepare cards with the name of each respiratory part on one side and its function on the reverse side. Use tape to attach cards to the child-size body outline.</p> <p>Refer to Activity Sheet GD38.</p> <p>Have enough copies prepared for one between two students. Cut the cards in half. Hide the function side around the classroom.</p> <p>Give each pair of students a set of the names. They must find and match the function side of their cards.</p> <p>Refer to Activity Sheet GD39.</p> <p>Use the overhead transparency to trace the movement of the air.</p>	The nose	cleans and warms the air	The mouth	takes in air and lets it out	The windpipe	moves air in and out of the lungs	The bronchioles	move air in and out of the air sacs	The air sacs	move oxygen into the blood	The air sacs	take carbon dioxide out of the blood	The diaphragm	is a muscle that helps in breathing
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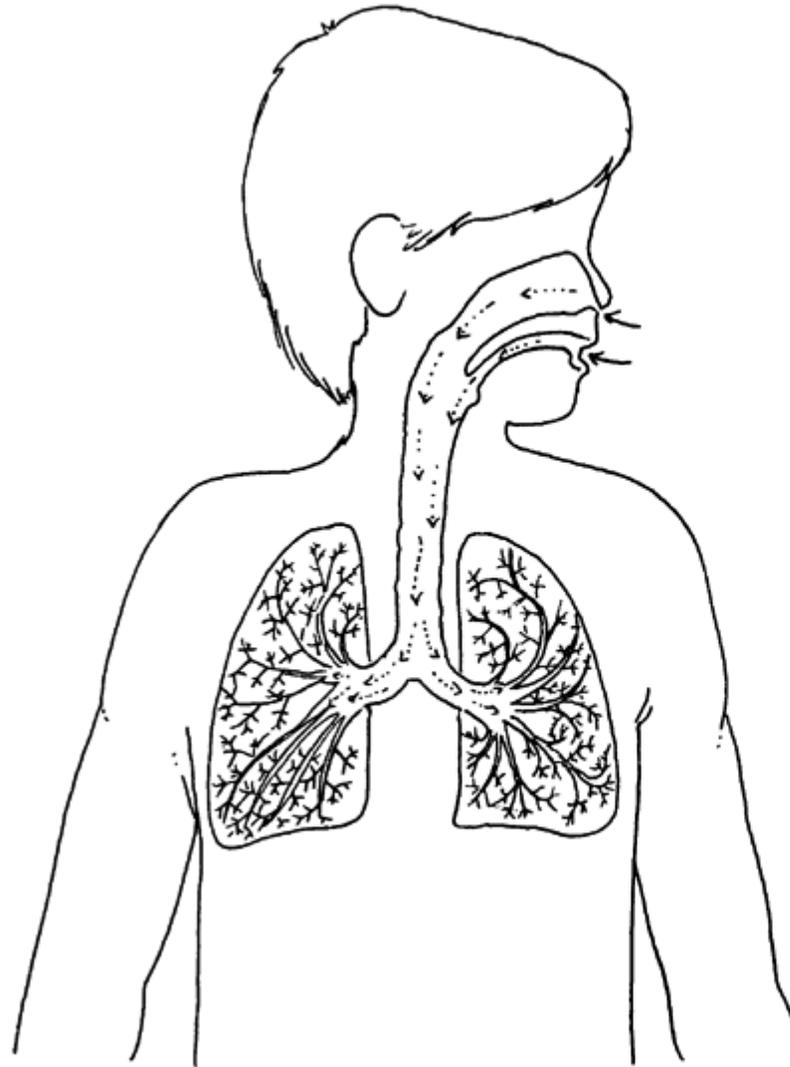
OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES									
<p>ii) state the importance of the respiratory system</p>	<p>7. Measure and record breathing rate, while resting.</p> <p>8. Conduct an experiment to show that oxygen is necessary for burning to occur.</p> <p>9. Review briefly how the oxygen gets into our body.</p> <p>10. Discuss the importance of the respiratory system.</p>	<p>Have students place hand on upper chest and feel one breath (in and out). Count the number of breaths over a 30 second period of time. Multiply by two to determine the number of breaths per minute.</p> <p>Repeat after running around the gym.</p> <p>Compare the breathing rate of various age groups.</p> <table border="0" data-bbox="1165 646 1963 889"> <tr> <td style="text-align: center;">Adult</td> <td style="text-align: center;">Grade 4</td> <td style="text-align: center;">Kindergarten</td> </tr> <tr> <td style="text-align: center;"></td> <td style="text-align: center;"></td> <td style="text-align: center;"></td> </tr> <tr> <td style="text-align: center;">16-21 per minute</td> <td style="text-align: center;">28 per minute</td> <td style="text-align: center;">35 per minute</td> </tr> </table> <p>Put a candle in a dish. Light it and put a jar over it. The candle goes out when all the oxygen is used up. The candle uses the oxygen to burn. In the same way, the body uses oxygen to burn its food.</p> <p>Lead students to use the term respiratory system.</p> <p>Discuss the candle experiment. Ask students what happens if they don't breathe. Be sure that students understand that respiration is essential for life because people need to breathe in oxygen and release carbon dioxide to stay alive.</p>	Adult	Grade 4	Kindergarten				16-21 per minute	28 per minute	35 per minute
Adult	Grade 4	Kindergarten									
											
16-21 per minute	28 per minute	35 per minute									

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
	<p>11. Tell why people sometimes need help to breathe.</p> <p>12. Complete Where's My Mask? Worksheet.</p>	<p>Invite a fireman to bring his breathing apparatus to school . Discuss why he needs to wear a mask (respirator). Brainstorm other people who sometimes need breathing apparatus. Include:</p> <ul style="list-style-type: none">- fireman- diver- someone who is sick- passengers on a jet plane- astronaut <p>Refer to Activity Sheet GD40.</p> <p>Have students match each mask to the correct person. Have students write a paragraph explaining why one of these people has to wear a mask and how the mask assists that person to breathe while doing his/her job.</p>

RESPIRATORY FUNCTION CARDS

nose	cleans and warms air
mouth	takes in air and lets it out
windpipe (trachea)	moves air in and out of the lungs
bronchioles	move air in and out of the air sacs
air sacs	move oxygen into the blood
air sacs	take carbon dioxide out of the blood
diaphragm	is a muscle that helps in breathing

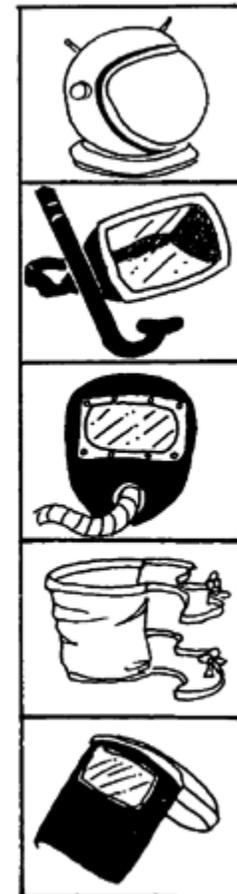
THE JOURNEY OF THE AIR



The arrows represent air entering the lungs. Air is exhaled in the opposite direction.

WHERE'S MY MASK?

Draw a line to match the person with his/her correct mask. Choose one of the people.
Write a paragraph explaining why each person has to wear a mask.



GROWTH AND DEVELOPMENT**GRADE: 5****LESSON: 3****THEME: BODY SYSTEMS**

CONCEPT: THE RESPIRATORY SYSTEM IS ESSENTIAL FOR GETTING OXYGEN INTO AND CARBON DIOXIDE OUT OF THE BODY

PREPARATION: 1 Collect a number of products used for respiratory system problems
2 Set of foam lungs from Canadian Lung Association and a cigarette and matches
3 Materials for a graffiti wall

VOCABULARY: problem

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
Students will be able to: i) name common problem conditions related to the respiratory system	Students: 1. Name common problem conditions related to the respiratory system. Briefly discuss.	Background Information Page GD61 to GD62 Throughout this lesson, teachers should be reinforcing the term respiratory. Collect a number of products related to problems of the respiratory system, e.g. , Contac-C, a nasal spray, etc. Discuss. Ask students why people sometimes use these. Ask them to think of a time when they had a problem with a part of the respiratory system, e.g., a cold. Brainstorm common problems related to the respiratory system.

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES				
ii) describe ways to care for the respiratory system	<ol style="list-style-type: none"> 2. Conduct an experiment to demonstrate the effect of smoking on the lungs. 3. Identify what they should do if they have a problem with any part of the respiratory system. 4. List ways to care for the respiratory system. Discuss. 	<p>Record student responses. They may include:</p> <ul style="list-style-type: none"> - colds - pneumonia - bronchitis - T B (tuberculosis) - allergies (asthma, hay fever, etc.) - lung cancer - collapsed lung <p>Use a pair of small foam lungs from Canadian Lung Association. Teacher squeezes the model lungs manually to smoke a cigarette. Observe the results and discuss.</p> <p>Emphasize that if students have a problem, they should tell an adult they trust.</p> <p>Have students respond using the sentence pattern:</p> <p>I take care of my respiratory system by (not) _____</p> <table border="1" data-bbox="1066 1057 1866 1443"> <thead> <tr> <th data-bbox="1066 1057 1457 1118">✓</th> <th data-bbox="1457 1057 1866 1118">X</th> </tr> </thead> <tbody> <tr> <td data-bbox="1066 1118 1457 1443"> <ul style="list-style-type: none"> - playing in clean air every day - exercising actively every day (running, biking, swimming) - getting plenty of rest and sleep - being careful near poisons, medicines, etc - drinking lots of liquid - having regular medical check-ups </td> <td data-bbox="1457 1118 1866 1443"> <ul style="list-style-type: none"> - smoking - using harmful substances, e g , inhalants - covering nose with a plastic bag </td> </tr> </tbody> </table>	✓	X	<ul style="list-style-type: none"> - playing in clean air every day - exercising actively every day (running, biking, swimming) - getting plenty of rest and sleep - being careful near poisons, medicines, etc - drinking lots of liquid - having regular medical check-ups 	<ul style="list-style-type: none"> - smoking - using harmful substances, e g , inhalants - covering nose with a plastic bag
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OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
	<p>5. Write to the Lung Association for more information on ways to care for the respiratory system.</p> <p>6. Make a graffiti wall with slogans.</p>	<p>Have students write a letter requesting more information.</p> <p>Canadian Lung Association Suite 908 75 Albert Street Ottawa, Ontario K1 P 9Z9</p> <p>When the information is received, have students share it with the rest of the class, or use it for their own research.</p> <p>Have students write slogans about ways of caring for the respiratory system. Stick them onto a wall to look like graffiti.</p>

GROWTH AND DEVELOPMENT**GRADE: 5****LESSON: 4****THEME: BODY SYSTEMS**

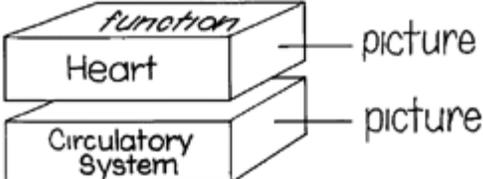
CONCEPT: THE CIRCULATORY SYSTEM IS ESSENTIAL FOR THE CIRCULATION OF BLOOD THROUGHOUT THE BODY

PREPARATION: 1 Overhead transparency of Activity Sheet GD41, 42
2 Materials for mobile
3 A plastic bottle and piece of rubber tubing
4 The heart of a dead animal
5 Pocket chart and sentence strips

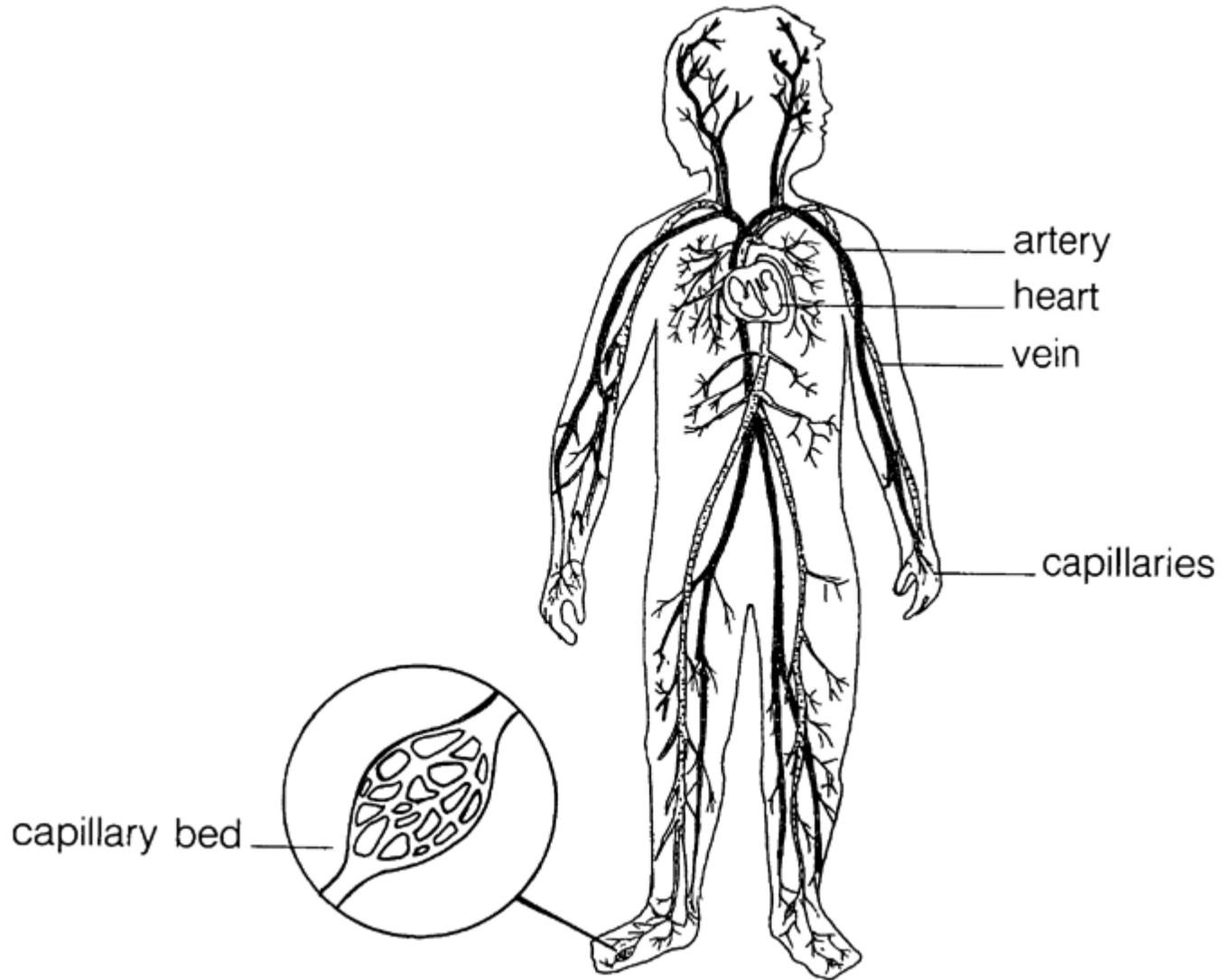
VOCABULARY: heart, blood, circulatory, arteries, veins, capillaries, atrium, ventricle

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
Students will be able to: i) name and locate the main parts of the circulatory system	Students: 1. Review briefly the body systems already studied. 2. Describe briefly what happens when a person is cut. 3. Define the term circulatory.	Background Information Page GD63 to GD67 The body systems studied to date are: - the digestive system (Grade 4) - the respiratory system (Grade 5) Ask students what happens when they cut themselves. Explain that the blood spurts out because a body part is forcing the blood to move around inside their body. Use a dictionary and general discussion to define the term. Students should understand that the circulatory system is the body system that makes the blood move around the body in a circle.

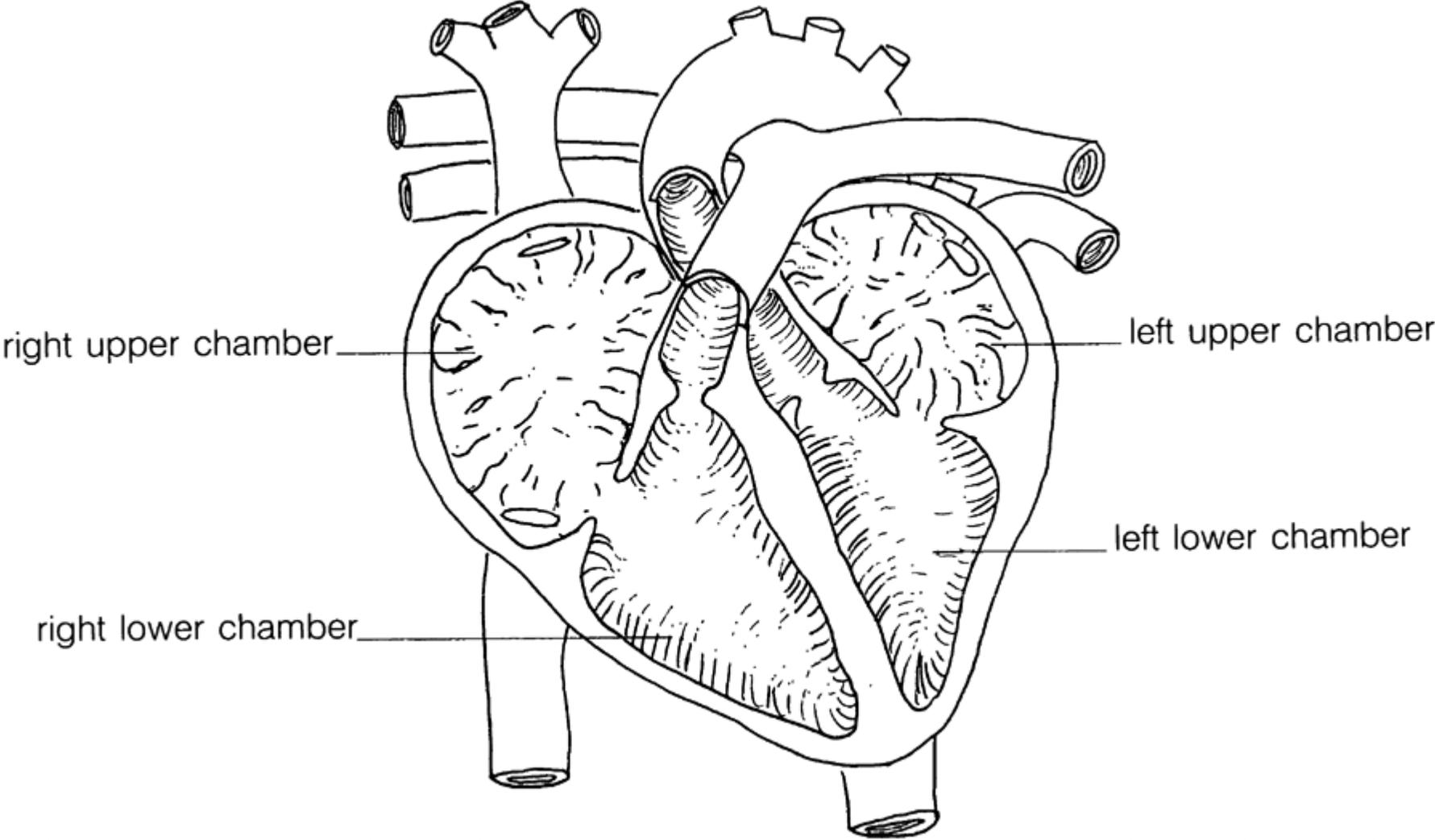
OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
	<p>4. List words related to the term circulatory and make up puzzles with the words.</p> <p>5. Name the main parts of the circulatory system.</p> <p>6. Name the four chambers of the heart.</p>	<div data-bbox="1060 256 1900 438" data-label="Diagram"> </div> <p>Students could work in pairs to make up word puzzles with the vocabulary: word finds, crossword puzzles, etc.</p> <p>Refer to Activity Sheet GD41.</p> <p>Using the overhead transparency, name the main parts of the circulatory system. They are:</p> <ul style="list-style-type: none"> - heart - arteries - veins - capillaries - blood <p>Use sentence strips and a pocket chart as illustrated:</p> <div data-bbox="1045 1079 1852 1136" data-label="Diagram"> </div> <p>Refer to Activity Sheet GD42.</p> <p>Using the overhead transparency name and locate the four chambers of the heart:</p> <ul style="list-style-type: none"> - the left upper chamber (left atrium) - the right upper chamber (right atrium) - the left lower chamber (left ventricle) - the right lower chamber (right ventricle)

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
	<p>7. Locate the heart using a home-made stethoscope.</p> <p>8. Locate veins, arteries and capillaries.</p> <p>9. Examine the heart of an animal.</p> <p>10. Make project cubes about the circulatory system.</p>	<p>Make a stethoscope. Cut the top off a plastic bottle. Attach a piece of rubber tubing making sure it fits tightly. Hold it against the heart slightly left of midchest and listen to the heart.</p>  <p>Have students examine the underside of a partner's tongue. Identify the:</p> <ul style="list-style-type: none"> - thick blue lines as veins - thick pink lines as arteries - very thin lines as capillaries <p>Ask a hunter or a butcher for the heart of an animal. Dissect the heart and look at the inside.</p> <p>Have students work in small groups to make project cubes to display information they have learned about the circulatory system.</p> 

THE CIRCULATORY SYSTEM



THE HEART



GROWTH AND DEVELOPMENT**GRADE: 5****LESSON: 5****THEME: BODY SYSTEMS**

CONCEPT: THE CIRCULATORY SYSTEM IS ESSENTIAL FOR THE CIRCULATION OF BLOOD THROUGHOUT THE BODY

PREPARATION: 1 Prepare the Follow The Blood Cells game (Activity Sheets GD43A, 43B)
2 A paper clip, straw and tape for each student
3 Prepare enough for one between two students of Broken Hearts Worksheet (Activity Sheet GD44)

VOCABULARY:

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
Students will be able to: i) describe the functions of the circulatory system	Students: 1. Play Follow The Blood Cells to simulate the journey of the blood. 2. Simulate the pumping of the heart using his/her fists.	Background Information: Page GD63 to GD67 Throughout this lesson, teachers should be reinforcing the term circulatory. Refer to Activity Sheets GD43A and 43B. Explain that this is the route taken by the blood cells around the circulatory system. Have students make a fist with one hand. Fold the other hand over the fist and squeeze hard. Do this approximately 70 times. That is the number of times the heart squeezes in one minute.

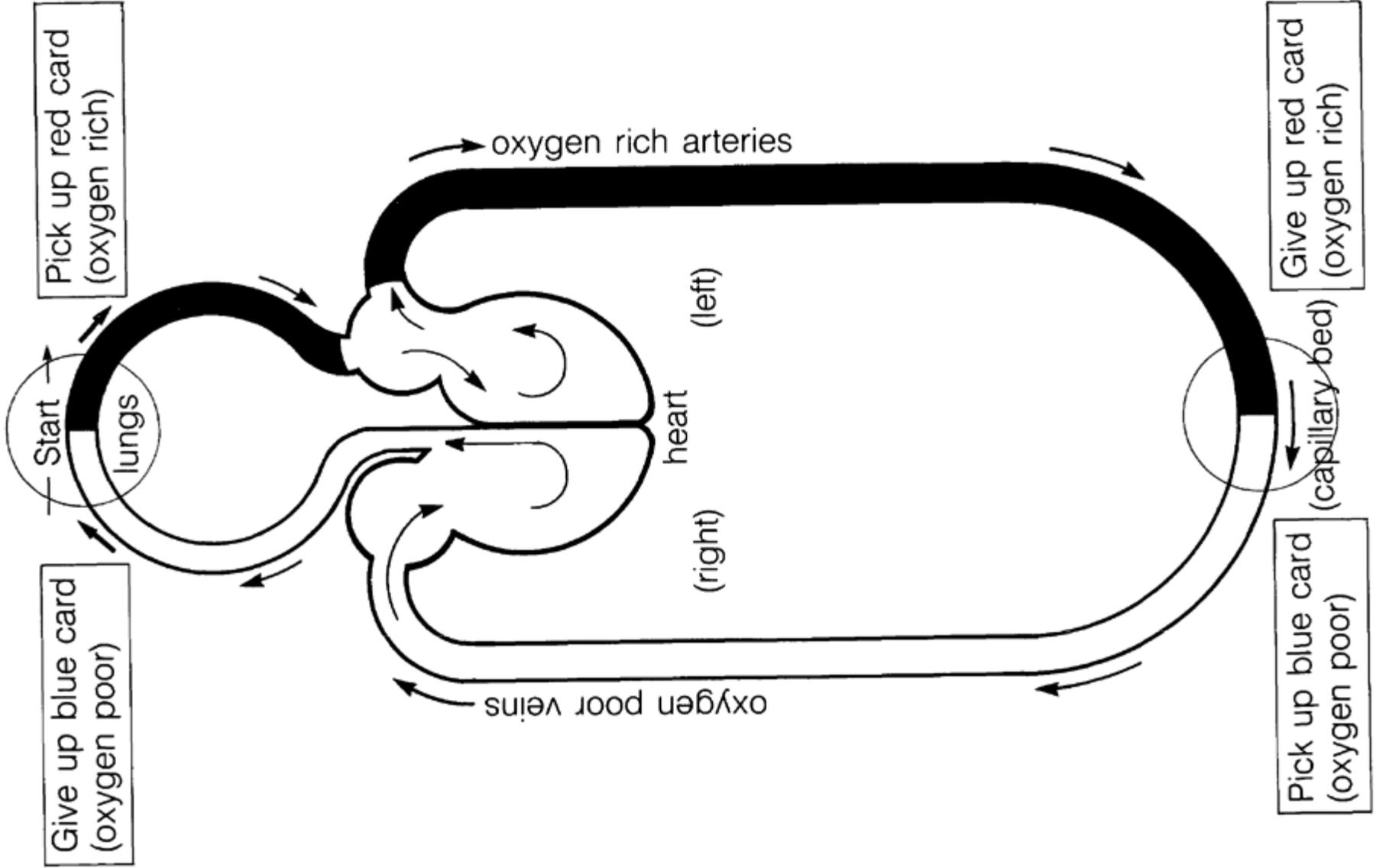
OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES												
<p>ii) state the importance of the circulatory system</p>	<p>5. Describe the functions of the parts of the circulatory system.</p> <p>6. Play Broken Hearts.</p> <p>7. Discuss the importance of the circulatory system.</p>	<p>Record the information using sentence strips and a pocket chart as illustrated:</p> <table border="1" data-bbox="1031 337 1927 769"> <tbody> <tr> <td>The heart</td> <td>pumps blood to body and lungs</td> </tr> <tr> <td>The arteries</td> <td>move blood <u>a</u>way from the heart (<u>a</u>rteries <u>a</u>way)</td> </tr> <tr> <td>The veins</td> <td>move blood back to the heart</td> </tr> <tr> <td>The capillaries</td> <td>move nutrients and oxygen from the blood into the body's cells</td> </tr> <tr> <td>The capillaries</td> <td>move wastes from the body cells into the blood</td> </tr> <tr> <td>The blood</td> <td>carries oxygen, nutrients and wastes throughout the body</td> </tr> </tbody> </table> <p>Refer to Activity Sheet GD44.</p> <p>Prepare enough hearts so that there is one for every two students. Cut the hearts in two. Give half the students the name and the other half the functions. Each person has to find the matching half of the heart, i.e., they have to match the name and the function. When matched, have the students read their heart to the class.</p> <p>Ask students what would happen if their heart stopped pumping. Ask students if they have ever had pins and needles in their foot or their hand. This occurs because the flow of blood has been temporarily interrupted. Students should understand that circulation is the process of carrying nutrients and oxygen to body cells for energy and removing wastes to the kidneys and lungs.</p>	The heart	pumps blood to body and lungs	The arteries	move blood <u>a</u> way from the heart (<u>a</u> rteries <u>a</u> way)	The veins	move blood back to the heart	The capillaries	move nutrients and oxygen from the blood into the body's cells	The capillaries	move wastes from the body cells into the blood	The blood	carries oxygen, nutrients and wastes throughout the body
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DIRECTIONS: FOLLOW THE BLOOD CELLS

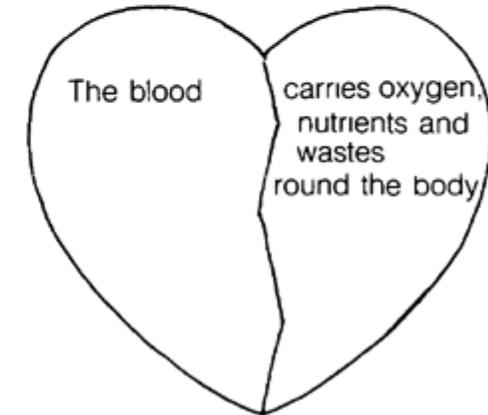
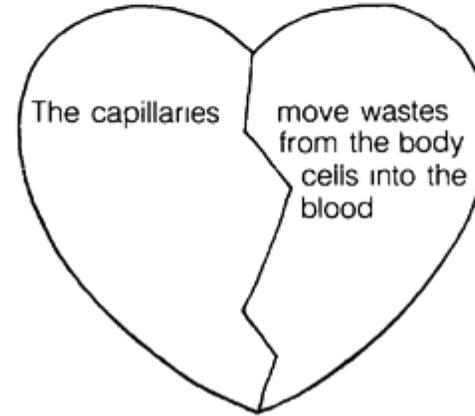
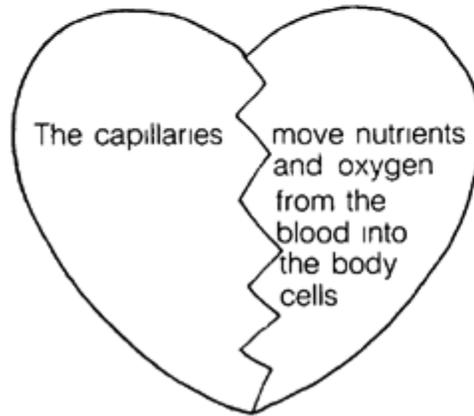
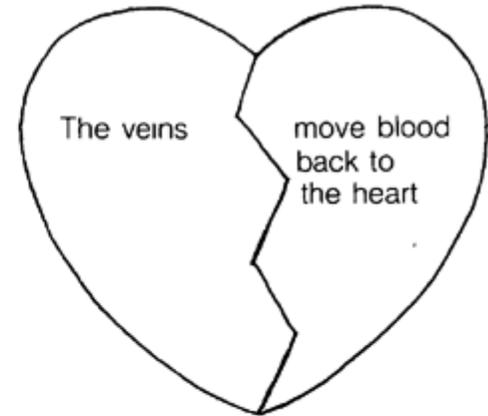
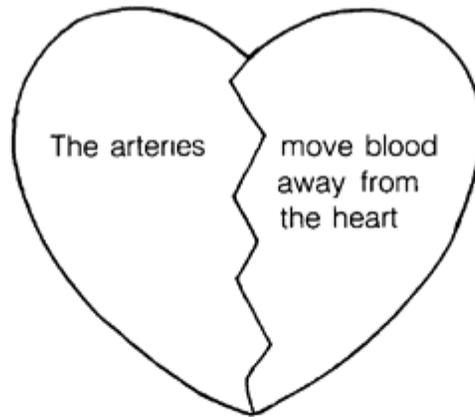
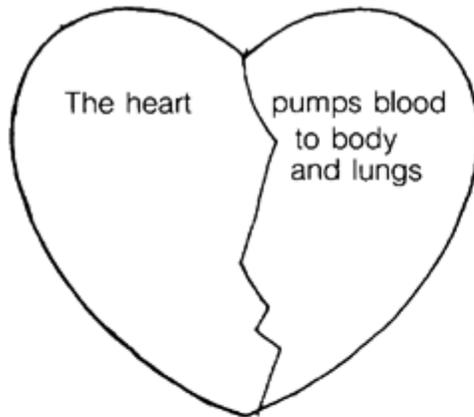
Materials: masking tape, red and blue tag board, 2 hoops

1. Cut out a class set of round red and blue cards (to represent oxygen-rich (red) blood cells and oxygen-poor (blue) blood cells).
2. Lay the masking tape down on the floor as in the diagram. Colour the masking tape red or blue to represent oxygen rich or oxygen poor blood. Hoops could be used to represent the lungs and capillary bed.
3. The "blood cells" have to walk around the system naming each part of the system they enter. Exchange red and blue cards correctly.
4. Students follow in a line around the system as described below.
 - A. Start in the lungs. Pick up a red card.
 - B. Pass through the blood vessel to the left atrium.
 - C. Pass to the left lower chamber (left ventricle).
 - D. Go into the large artery and around the body.
 - E. Enter the capillary bed. Exchange a red card for a blue card.
 - F. Enter the vein.
 - G. Go to the right upper chamber (right atrium).
 - H. Go to the right lower chamber (right ventricle).
 - I. Go through the large blood vessel to lungs. Exchange a blue card for a red card.

FOLLOW THE BLOOD CELLS



BROKEN HEARTS



GROWTH AND DEVELOPMENT**GRADE: 5****LESSON: 6****THEME: BODY SYSTEMS**

CONCEPT: THE CIRCULATORY SYSTEM IS ESSENTIAL FOR THE CIRCULATION OF BLOOD THROUGHOUT THE BODY

PREPARATION: 1. Magazines and other materials for mobiles**VOCABULARY:** heart attack, stroke, artificial, transplants

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
Students will be able to: i) name common problem conditions related to the circulatory system	Students: 1 Name common problem conditions related to the circulatory system. Briefly discuss. 2 Tell why some people get artificial hearts or heart transplants.	Background Information Page GD63 to GD67 Ask students if they know any problem conditions related to the circulatory system. Discuss Problem conditions include: - heart attack - stroke - rheumatic fever If time permits, have students do research on artificial hearts or heart transplants.

GROWTH AND DEVELOPMENT**GRADE: 5****LESSON: 7****THEME: BODY SYSTEMS**

CONCEPT: LIFESTYLE IS IMPORTANT TO THE PREVENTION OF CARDIOVASCULAR DISEASE

PREPARATION: 1. Prepare a class set of How Am I Doing? (Activity Sheet GD45)
2. Prepare a class set of Keeping My Heart and Lungs Healthy (Activity Sheet GD46)

VOCABULARY: lifestyle, behaviours, improve

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
Students will be able to: i) identify life-style behaviours that maintain a healthy cardiovascular system	Students: 1. Review ways to care for the heart and lungs. 2. Assess personal lifestyle behaviours related to the heart and lungs. 3. Select one lifestyle behaviour which they would like to improve. 4. Complete the Activity Sheet Keeping My Heart and Lungs Healthy.	Background Information Page GD61 to GD67 Grade 5, Lessons 3 and 6. Have students complete Activity Sheet GD45. From column 2 or column 3 of Activity Sheet GD45, have students choose one thing to improve. The teacher should be first: Refer to Activity Sheet GD46. At the end of each week, have students review their programs.

HOW AM I DOING?

Decide if the following statements are true for you - most of the time, some of the time or never. Put a cross X in the appropriate box.

	Column 1	Column 2	Column 3
	Most of the time	Some of the time	Never
1 I exercise actively every day (biking, running, playing baseball) _____			
2 I eat foods from the four food groups every day _____			
3 I avoid smoking or chewing tobacco _____			
4 I play outside every day _____			
5 I get plenty of sleep and rest _____			
6 I avoid sniffing harmful substances _____			
7 I drink lots of liquids _____			
8 I eat snacks low in sugar and salt _____			
9 I avoid worrying about things _____			
10 I avoid becoming overweight or underweight _____			

KEEPING MY HEART AND LUNGS HEALTHY

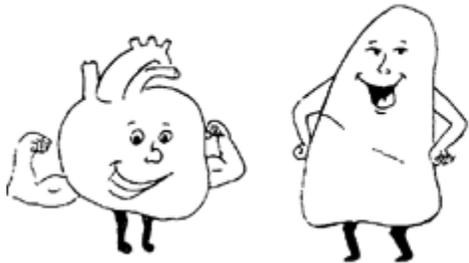
Name: _____

I plan to _____

My progress: (As you finish 1 week, you may want to add another week to the bottom of the chart)

Week 1

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday



GRADE 5

TEACHER BACKGROUND INFORMATION

GROWTH AND DEVELOPMENT

THE RESPIRATORY SYSTEM

Respiration can be defined as the process of supplying oxygen to the body cells and removing carbon dioxide.

Inhaled air passes through the nose and mouth. In the nasal cavities, the air is cleaned, warmed and moistened by the lining of sticky mucus and tiny hair-like cilia.

Air travels from the nose and mouth to the pharynx or the throat. The pharynx has two openings the windpipe, leading to the lungs, and the esophagus, leading to the stomach. A protective flap of skin, called the epiglottis, seals the windpipe when food is swallowed preventing food from entering the wrong tube. The larynx, or voice box, is located below the pharynx and at the entrance to the windpipe. The vocal cords are made up of two folds of tissue which produce sound as air is expelled from the lungs. Laryngitis is an infection of the lining of the larynx which often affects the ability to speak.

The windpipe, or trachea, is the air passage to the lungs. It is held open by strong bands of cartilage. The trachea divides into two branches called the bronchi. Each branch goes to a lung and subdivides into many smaller branches. The smallest twigs of the tree-like structure are called the bronchioles. At the end of each bronchiole is a tiny air sac called an alveolus. It is in the alveoli that oxygen and carbon dioxide are exchanged.

The alveoli are lined with tiny blood vessels which absorb oxygen and release carbon dioxide to be eliminated from the lungs.

The respiratory tract is lined with a thin film of mucus which traps inhaled germs, dust and foreign particles. The mucus is moved upwards toward the throat by tiny hair-like cilia.

Respiration or breathing usually occurs at a rate of 12-14 times per minute and may be both a voluntary and involuntary action. Breathing occurs without conscious control and is described as an involuntary action. However, we are able to control our rate of breathing or exert voluntary control when we hold our breath.

The lungs are enclosed in the protective structure of the rib cage. The act of breathing occurs through the contraction and expansion of the rib cage. As the rib cage expands, so do the lungs. The diaphragm is a large thick muscle beneath the lungs which also facilitates inhalation and exhalation. The breathing centre in the brain regulates the contraction of the diaphragm which causes the lung cavity to lengthen. At the same time, the muscles between the ribs, called the intercostals, contract making the rib cage expand. The lungs expand and air is inhaled. Air is forced out of the lungs or exhaled as the diaphragm and intercostals relax and the rib cage and lung cavity decrease in size.

Adapted from: Harvey, D. and White, D. (ed.)
Body Systems and Physical Fitness.
Health Education Methods Project for Elementary
School Teachers. Ottawa, Ont: Health Promotion
Directorate. Health and Welfare Canada, 1983.

COMMON PROBLEM CONDITIONS OF THE RESPIRATORY SYSTEM

Problem	Cause	Brief Description
pneumonia	- bacteria, viruses - communicable	- an infection of the lung tissue often accompanied by fluid; - signals: breathing difficulty, fever and coughing
bronchitis	- bacteria, viruses or irritants - some forms are communicable	- an inflammation of the mucous membrane of the bronchi with fluid and thick mucus accumulation; - signals cold, hoarseness, coughing
common cold	- viruses - communicable	- upper respiratory infection, especially of nose and throat; - signals headache, runny/stuffed nose, watery eyes, fever, cough
tuberculosis	- bacteria - communicable	- mainly a disease of the lungs with development of lesions; - signals fever, weight loss, cough, sputum, blood, pain, difficult to breathe
asthma (allergy)	over-sensitivity to common triggers (pet hair, dust, feathers, pollen) or stress	- lower respiratory reaction with mucus build-up in bronchioles; - signals: shortness of breath, wheezing, coughing, gasping
hay fever (allergy)	over-sensitivity to common triggers (pet hair, dust, feathers, pollen)	- upper respiratory reaction; - signals: redness in eyes, nose and throat, mucus production, sneezing

WAYS TO CARE FOR THE RESPIRATORY SYSTEM

Positive health habits related to the respiratory system include:

- playing in clean air daily
- exercising daily (running, biking, swimming, skipping)
- participating in smoke-free program
- getting plenty of rest, sleep and relaxation
- avoiding harmful substances (inhalants, hazardous household products, smoke-filled rooms)
- being careful around poisons, alcohol, medicines and drugs
- selecting nutritious foods from all of the four food groups
- drinking plenty of fluids (milk, juice, water)
- having regular medical check-ups

THE CIRCULATORY SYSTEM

The circulatory system is the body's transport and delivery system. The heart is the pump, the blood is the medium; and the blood vessels form the pathways.

The circulatory system has five main functions:

1. It transports oxygen to the muscles so they can work.
2. It carries nutrients such as glucose, fats, proteins, carbohydrates, vitamins and minerals to body cells.
3. It removes metabolic wastes such as carbon dioxide, lactic acid, urea and heat.
4. It functions as a temperature regulator.
5. Finally, it serves as a communication system by transporting hormones and antibodies to their receptor sites.

THE HEART

The heart is an important organ located inside the chest and between the lungs. The heart is the size of a man's fist. It is a powerful muscle that works night and day. The heart works like two pumps sending blood to all parts of the body.

There are four chambers inside the heart. The upper atrium on the right side receives dark coloured blood from all over the body. This blood has waste carbon dioxide in it. One heart-pump squeezes blood into the right ventricle and out through a tube to the lungs.

The blood is cleaned up in the lungs. When you breathe in, oxygen is brought into the lungs. Carbon dioxide from the blood is traded for oxygen. Carbon dioxide is breathed out of the lungs. Oxygen moves into the blood and turns the blood a bright red colour in the lungs.

Bright red blood is sent to the left atrium of the heart. The second heart-pump squeezes blood into the left ventricle and out through a tube to all parts of the body. Blood with lots of oxygen helps provide the body with energy.

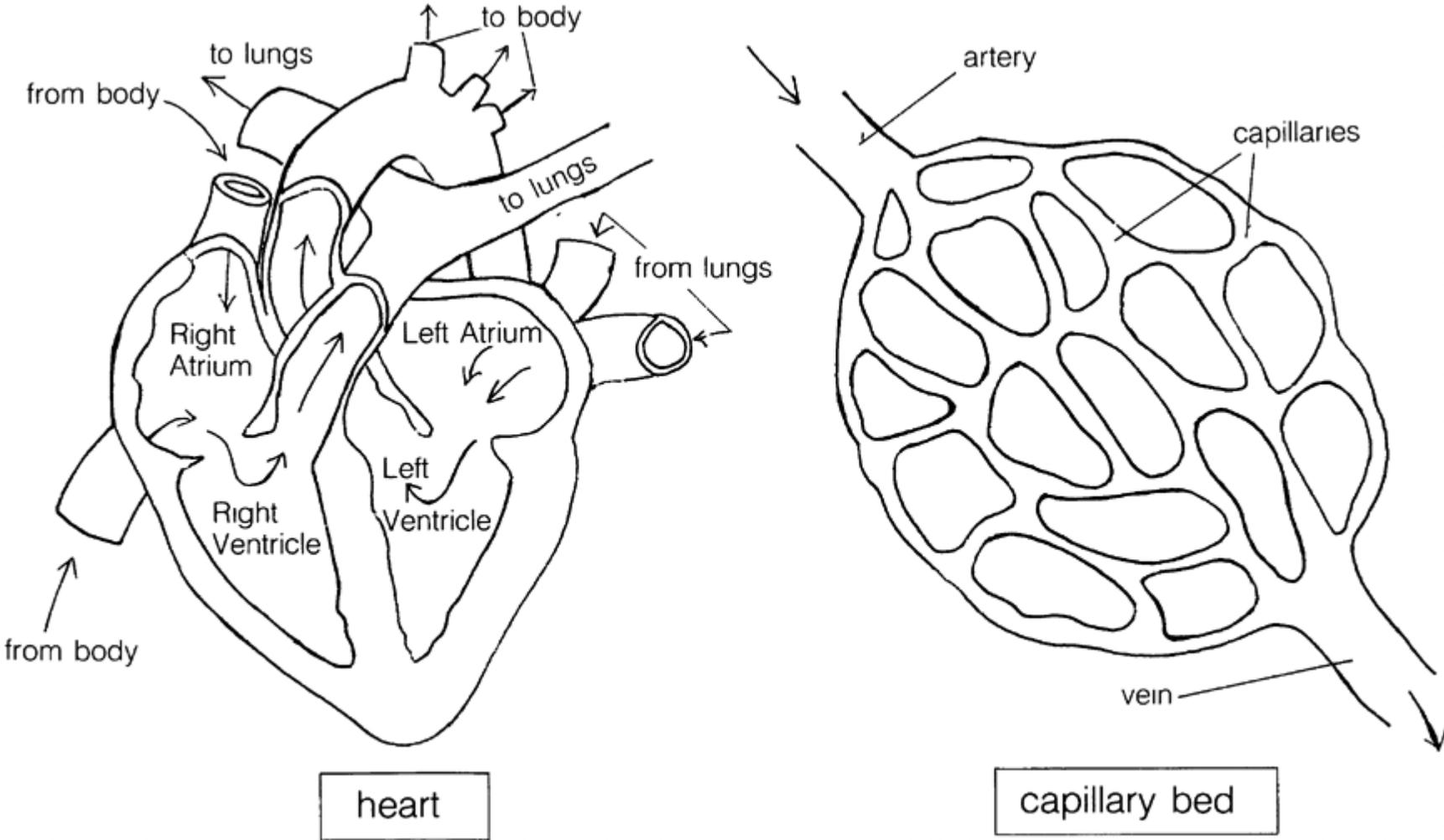
Capillaries have two functions. They move nutrients and oxygen from the blood into the body cells and move wastes from the body cells into the blood. The capillary beds are where oxygen and energy are exchanged for carbon dioxide and wastes in the blood.

It should be noted that arteries always carry oxygenated blood except from the heart to the lungs. Veins always carry oxygen poor blood except from the lungs back to the heart.

The heart beats about 90 times every minute of the day. The heart is a very hard-working muscle and must be kept in good working order. When the heart is strong, it delivers blood through the body more easily and keeps it healthy and strong.

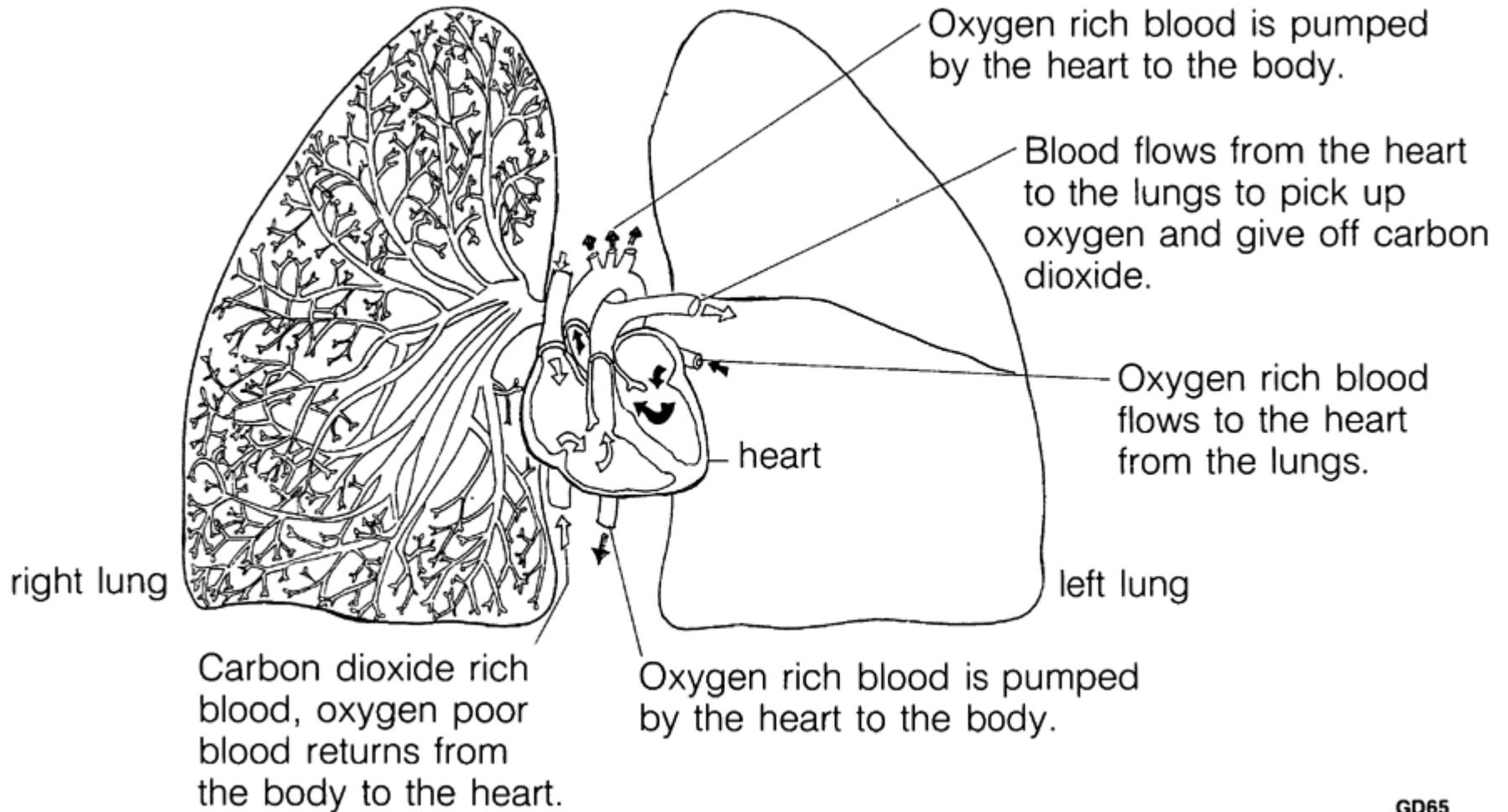
Adapted from. Harvey, D. and White, D. (ed.)
Body Systems and Physical Fitness.
Health Education Methods Project for Elementary
School Teachers, Ottawa, Ont. Health Promotion
Directorate, Health and Welfare Canada, 1983.

BLOOD CIRCULATION



HEART-LUNG CIRCULATION

Black arrows represent oxygen rich blood. White arrows represent oxygen poor blood.



CARDIOVASCULAR DISEASES

Disease	Cause	Brief Description
hypertension	<ul style="list-style-type: none">- overweight- too much salt in diet- smoking- family history- lifestyle	<ul style="list-style-type: none">- blood vessels narrow causing the heart to beat harder and pump blood faster- over time the extra pressure can cause heart and blood vessel damage
arteriosclerosis	<ul style="list-style-type: none">- diet very high in saturated fats, e.g., dairy products, fatty meats	<ul style="list-style-type: none">- calcium build-up inside arteries causes hardening and thickening of walls of the arteries; decreased blood-flow due to narrowing of the passageways- poor circulation to legs and brain
atherosclerosis	<ul style="list-style-type: none">- overweight- smoking- diet- lifestyle	<ul style="list-style-type: none">- a form of arteriosclerosis caused by a build-up of fatty material called cholesterol- blood flow is reduced due to narrowing of arteries- deposits may occur in childhood
heart attack	<ul style="list-style-type: none">- vessel blockage	<ul style="list-style-type: none">- a sudden life-threatening condition caused by a blockage of one or more arteries supplying blood and oxygen to the heart causing death to the blocked heart muscle- the site of the blockage determines the seriousness, i.e., if a major artery becomes blocked death may occur
angina pectoris	<ul style="list-style-type: none">- stress, some blockage in vessels	<ul style="list-style-type: none">- a temporary decrease in oxygen supply to heart- chest pains and a feeling of suffocation may occur due to heavy physical or emotional stress

Disease	Cause	Brief Description
heart failure	<ul style="list-style-type: none"> - cardiovascular problems - salt 	<ul style="list-style-type: none"> - the heart is weakened from years of hypertension and other cardiovascular problems - it is unable to pump a normal amount of blood - blood backs up in the veins - swelling may occur in legs
stroke	<ul style="list-style-type: none"> - hypertension - atherosclerosis 	<ul style="list-style-type: none"> - drop in blood supply and oxygen to an area of the brain due to blockage of a vessel by a blood clot or rupture of a vessel - the part of the brain affected dies and death or damage may occur, i.e., speech problems, paralysis, loss of memory
rheumatic fever	<ul style="list-style-type: none"> - linked to acute streptococcus (i.e. a strep throat) 	<ul style="list-style-type: none"> - inflammation of heart valves and muscle tissue - this swelling can damage and scar heart valves - this damage may disturb blood flow through heart (i.e., rheumatic heart disease) in later years

WAYS TO CARE FOR THE CIRCULATORY SYSTEM

Positive health habits related to the circulatory system include:

- exercising each day (running, skipping, swimming, riding a bike)
- eating nutritious foods from all four food groups
- choosing snacks low in sugar, salt and fat
- participating in smoke-free programs
- playing in clean air
- drinking plenty of fluids (milk, juice, water)
- having regular medical check-ups
- reducing stress appropriately
- avoiding tobacco products and caffeine
- maintaining normal weight

OTHER DISEASES WITH WHICH STUDENTS MAY BE FAMILIAR

Problem	Communicable	Cause	Brief Description
AIDS	Yes	- virus - spread from person to person usually by sexual contact	- break down of the body's immune system which makes the person susceptible to many different diseases
arthritis	No	- Unknown	- swelling and inflammation of a joint or joints causing pain and stiffness
bronchitis	No/Yes	- irritants - spread from person to person by direct contact	- an inflammation of the mucous membrane of the bronchi with fluid and thick mucus accumulation; - signals: cold, hoarseness, coughing
cancer	No	- environmental, hereditary, biological factors	- normal body cells become malignant
chicken pox	Yes	- spread from person to person by direct contact, virus	- slight fever, headache, backache, loss of appetite, small red spots on the back or chest, spots enlarge and a vesicle of clear fluid appears, itchy
common cold	Yes	- spread from person to person by direct contact, virus	- upper respiratory infection, especially of nose and throat, - signals: headache, runny/stuffed nose, watery eyes, fever, cough
diabetes mellitus	No	- 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
ear infection	Yes	- environmental predisposition; virus, bacteria, spread from person to person by direct contact	- severe pain, fever, draining of the ear
emphysema	No	- smoking, pollution	- lung disorder in which the bronchioles become plugged with mucus, onset - 40-80 years old
German Measles (Rubella)	Yes	- spread from person to person by direct contact, bacteria	- slight cold, some fever, sore throat, lymph nodes swell, rash on face and scalp, then to body and arms, spots do not run together - rash fades in 2-3 days

OTHER DISEASES WITH WHICH STUDENTS MAY BE FAMILIAR (CONTINUED)

Problem	Communi- cable	Cause	Brief Description
impetigo	Yes	- spread from person to person by direct contact, bacteria	- thin walled vesicle which ruptures and is covered by a honey-yellow crust, spreads in circles on exposed parts of the body
influenza (flu)	Yes	- spread from person to person by direct contact, virus	- fever, chills, headache, sore throat, cough, intestinal disorders, muscular pain
lice (pediculosis) (head lice)	Yes	- spread from person to person by direct contact	- visible white specks in the hairs of the back of the head, glands behind ears and back of the neck are enlarged, itching
meningitis	Yes	- spread from person to person by direct contact	- headache, vomiting, nausea, stiff neck, chills, fever, irritability, confusion and later convulsions
mumps	Yes	- spread from person to person by direct contact	- swelling of glands in the neck, pain, tenderness, fever, loss of appetite, back pains, headache
red measles	Yes	- spread from person to person by direct contact	- tired and uncomfortable, running nose, fever, pains in back and head, small white dots on the gums, rash at the hairline spreading down the body, spots may run together to form blotches
pneumonia	Yes	- virus, bacteria	- an infection of the lung tissue often accompanied by fluid, - signals breathing difficulty, fever and coughing
scabies	Yes	- spread from person to person by direct contact	- intense itching, more often at night, usually one month after initial infection
strep throat	Yes	- spread from person to person by direct contact, bacteria	- sore throat, headache, red pharynx, enlarged tonsils, flushed face
tuberculosis (TB)	Yes	- spread from person to person by direct contact	- mainly a disease of the lungs with development of lesions, - signals fever, weight loss, cough, sputum, blood, pain, difficult to breathe
tonsillitis	Yes	- spread from person to person by direct contact	- tonsils act as a defence against respiratory infections, signals include sore throat, enlarged tonsils, difficulty in swallowing

GRADE 5

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 may 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: 5****LESSON: 1****THEME: FAMILIES**

CONCEPT: MALE AND FEMALE ROLES IN THE FAMILY ARE DETERMINED BY CAPABILITIES, POTENTIALS AND CULTURAL TRADITION

PREPARATION: 1 Drawing/picture of a man and woman in non-traditional roles (Activity Sheet FL39)
2 Prepare a class set of What Can I Do? worksheets (Activity Sheet FL40)

VOCABULARY: role, traditional, society

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
Students will be able to: i) identify traditional male and female roles within the family	Students: 1 Describe the role of females in traditional society.	Background Information: Page - Refer to Activity Sheet FL39. Show students a drawing/picture of a woman in a non-traditional role, e.g., driving a bull-dozer. Ask students if they would have seen a woman doing this job in their community many years ago. Ask them what jobs women would have been doing.

OBJECTIVES**STUDENT ACTIVITIES****TEACHER NOTES**

2. Describe the role of males in traditional society.

3. Discuss reasons for traditional roles.

Record student responses in the first column of an experience chart as illustrated.

Female	Male
<ul style="list-style-type: none"> - cooking - sewing - cleaning - child bearing - child care 	<ul style="list-style-type: none"> - hunting - trapping - carving - home building

Have students discuss the chart using the sentence pattern:

In traditional society, a woman _____

Refer to Activity Sheet FL39.

Show students a drawing/picture of a man in a non-traditional role, e.g., washing dishes. Discuss what jobs men did do. Add student responses to the experience chart started in Student Activity 1.

Have students discuss the chart using the sentence pattern:

In traditional society, a man _____

Ask students why men and women had particular tasks in the past. Help students to understand that the reasons are mainly related to the needs of the family and how these tasks were shared.

OBJECTIVES**STUDENT ACTIVITIES****TEACHER NOTES**

ii) identify how capabilities and potentials affect male and female roles

4. Identify whether males and females can do tasks other than traditional tasks.

Ask students if men and women can do other tasks. Record student responses using an experience chart as illustrated:

Task	Male	Female	Both
clean house			
earn money			
have a baby			
cook			
fix a skidoo			
look after a baby			
hunt			
shop			
teach			
fish			

Have students discuss the chart using the sentence patterns:

Can a male _____?

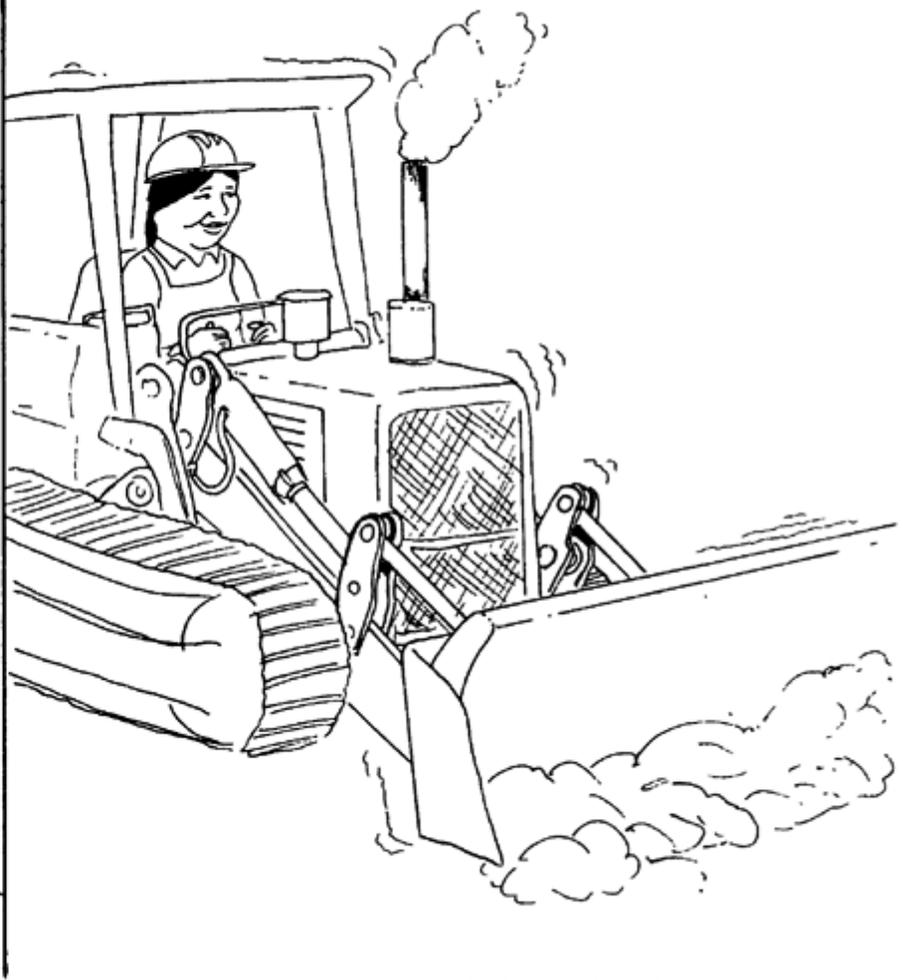
Can a female _____?

A male (can) (cannot) _____

A female (can) (cannot) _____

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
<p>iii) describe how male and female roles are changing and have changed</p>	<p>5. Complete the What Can I Do? Worksheet.</p> <p>6. Describe how roles are changing/ have changed and why. Discuss..</p>	<p>Refer to Activity Sheet FL40</p> <p>Have students complete the worksheet by deciding:</p> <ul style="list-style-type: none"> i) if they can do that task ii) if they like doing that task iii) if they are good at doing that task <p>They may put a check mark in more than one column.</p> <p>Discuss with the rest of the class when everyone has completed the worksheet.</p> <p>Have students compare the charts made in Student Activities 1 and 4. Have them discuss how the roles have changed. Students might like to interview community elders about the roles they played and make the interviews into a book.</p>

NON-TRADITIONAL ROLES



FAMILY LIFE**GRADE: 5****LESSON: 2****THEME: FAMILIES**

CONCEPT: FAMILY ACTIVITIES CAN ENHANCE FAMILY LIVING

PREPARATION: 1. Prepare a class set of the poem "Families" (Activity Sheet FL41)
2. Picture of a family
3. Materials for circle book

VOCABULARY: together

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
Students will be able to: i) identify activities which a family can do together	Students: 1 Review the various needs which families provide for their members. 2 Learn the poem "Families". 3 Brainstorm activities that families do together. 4 Play the circle game Families.	Background Information: Page - This is a review of Grade 4, Lesson 1. Refer to Activity Sheet FL41. Show students a picture of a family. Discuss some of the things which the families in the poem did together. Make a list of things families might do together. Use the sentence pattern: Families _____ together. Have students sit in a circle. The first person tells something that families can do together, e.g. , "Families clean the house together." The second person repeats that statement and adds another.

FAMILIES

Families - playing together,
Helping, sharing,
Having fun.

Families - working together
Supporting, loving,
Having fun.

Families - just being together
Learning, caring,
Having fun.

Families - living together,
Protecting, trusting,
Having fun.

Helen Balanoff



FAMILY LIFE**GRADE: 5****LESSON: 3****THEME: HUMAN DEVELOPMENT
AND REPRODUCTION**

CONCEPT: PUBERTY IS ONE STAGE OF DEVELOPMENT IN EVERYONE'S LIFE

PREPARATION: 1 Overhead transparency of Activity Sheets FL41, 42
2 Prepare a class set of The Way We Are (Activity Sheet FL43)

VOCABULARY: puberty, adolescence, genitals, erection, ejaculation, pubic

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
Students will be able to: i) identify the physical changes in males and females at puberty	Students: 1 Review the physical changes which begin at puberty	Background Information Page FL62 to FL63 Refer to Activity Sheets FL41, 42. Use the overhead transparencies to discuss the changes. This is a review of Grade 4, Lesson 3.

OBJECTIVES**STUDENT ACTIVITIES****TEACHER NOTES**

2. Define the term puberty.
3. Describe the physical changes related to reproduction at puberty.
4. Define the term adolescence.

Have students respond using the sentence pattern:

At puberty, _____

- the skin becomes oilier
- a young person may get pimples on his/her face
- a boy's voice breaks
- hair grows on different parts of the body
- a boy's muscles develop
- etc.,

Use a dictionary and discussion to define the term. Students should understand that puberty refers to the stage at which physical changes in a male or female allow them to reproduce.

Ask students to list the physical changes related to reproduction. Record student responses using an experience chart as illustrated:

Males	Females
- penis, scrotum, testicles get bigger	- vulva, vagina, uterus get bigger
- erections may occur	- ovulation occurs
- sperm are produced	- menstruation begins
- ejaculation may occur	- cervix produces mucus

Have students discuss the chart using the sentence pattern:

At puberty, _____.

Use a dictionary and discussion to define the term. Be sure students understand that adolescence is the period of growth leading to adulthood. It occurs between puberty and adulthood.

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES				
<p>ii) describe personal hygiene practices related to puberty</p>	<p>5. Brainstorm other words students are familiar with related to adolescence.</p> <p>6. Identify where adolescence occurs in the life cycle.</p> <p>7. Describe ways of maintaining personal hygiene during puberty.</p>	<p>Words might include:</p> <ul style="list-style-type: none"> - adult - adulthood <p>Use a pocket chart. Have a number of cards with a different stage in a person's life on each. Have students sort them into the correct order, e.g.,</p> <div style="text-align: center;"> <div style="border: 1px solid black; padding: 2px; display: inline-block; margin-bottom: 5px;">adult</div> <div style="border: 1px solid black; padding: 2px; display: inline-block; margin-bottom: 5px;">child</div> <div style="border: 1px solid black; padding: 2px; display: inline-block; margin-bottom: 5px;">adolescent</div> <div style="border: 1px solid black; padding: 2px; display: inline-block; margin-bottom: 5px;">baby</div> <div style="border: 1px solid black; padding: 2px; display: inline-block; margin-bottom: 5px;">toddler</div> <div style="border: 1px solid black; padding: 2px; display: inline-block; margin-bottom: 5px;">teenager</div> </div> <p>Ask students how they should take care of themselves during puberty. Record student responses on an experience chart as illustrated:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;">Changes</th> <th style="width: 50%;">Personal Hygiene Practices</th> </tr> </thead> <tbody> <tr> <td style="vertical-align: top;"> <ul style="list-style-type: none"> - oily skin - increased sweating - growth of hair - menstruation </td> <td style="vertical-align: top;"> <ul style="list-style-type: none"> - regular washing with soap and water - regular showering/use of deodorant - regular showering - regular showering </td> </tr> </tbody> </table>	Changes	Personal Hygiene Practices	<ul style="list-style-type: none"> - oily skin - increased sweating - growth of hair - menstruation 	<ul style="list-style-type: none"> - regular washing with soap and water - regular showering/use of deodorant - regular showering - regular showering
Changes	Personal Hygiene Practices					
<ul style="list-style-type: none"> - oily skin - increased sweating - growth of hair - menstruation 	<ul style="list-style-type: none"> - regular washing with soap and water - regular showering/use of deodorant - regular showering - regular showering 					

OBJECTIVES

STUDENT ACTIVITIES

TEACHER NOTES

9. Categorize the changes into physical, mental, emotional and social.

List on the board all the other changes which students mention. Be sure students think of changes in each of the following categories:

- physical changes
- mental changes
- emotional changes
- social changes

Ask students to group the changes from the list. Rewrite the list using an experience chart as illustrated.

Physical	Mental	Emotional	Social
- skin becomes oilier	-able to make plans	- less self-centred	- spends more time with friends
- pimples, spots	-able to solve problems	- aware of other people's feelings	- wants to be one of the crowd
- voice breaks	-thinking skills	- mood swings	- more interest in opposite sex
- breasts develop	develop	- sexual feelings change	
- penis, scrotum get bigger	-communica tion skills develop		

10. Complete The Way We Are worksheet

Have students discuss the chart using the sentence pattern:

During adolescence, (young people become less self centered)

Refer to Activity Sheet FL43.

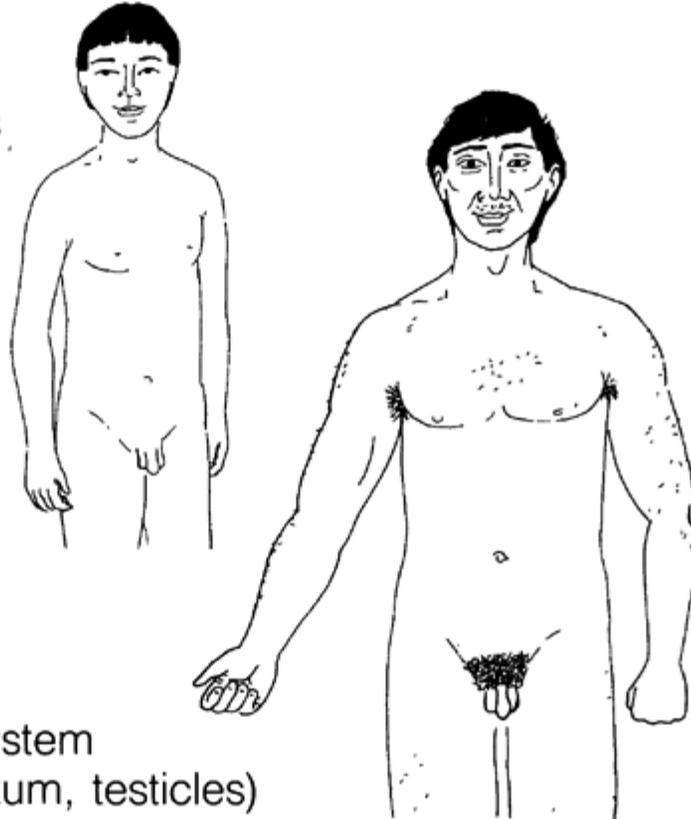
Have students categorize the changes into mental, emotional, social and physical changes.

Teachers should emphasize that these changes take place at different ages for different people.

PHYSICAL CHANGES FROM A BOY TO A MAN

Skin:

- becomes oilier
- may develop spots and pimples
- sweats more



Voice:

- breaks
- becomes deeper

Body Shape and Development:

- muscles develop
- shoulders broaden
- becomes taller and heavier
- development of reproductive system
- genitals get bigger (penis, scrotum, testicles)
- erections may occur
- ejaculation may occur

Hair develops:

- on face
- under arms
- on chest and back
- on arms and legs
- in pubic areas

PHYSICAL CHANGES FROM A GIRL TO A WOMAN

Skin:

- becomes oilier
- may develop spots and pimples
- sweats more

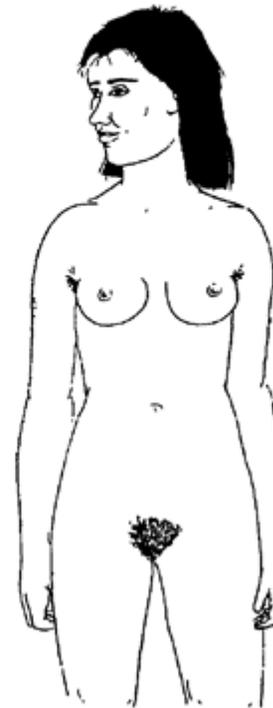


Voice:

- gets slightly deeper

Body Shape and Development:

- face becomes fuller
- breasts develop
- nipples stand out
- buttocks, hips and thighs become rounder
- development of reproductive system
- genitals get bigger (vulva, vagina, uterus)
- grows taller and heavier



Hair develops:

- under arms
- on arms and legs
- in pubic area

THE WAY WE ARE

FL43

Physical 	Mental 	Emotional 	Social 

Put the following changes into the correct columns (some changes may fit in more than one column).

- growing taller
- wanting to be like everyone else
- lonely feelings
- arguing with parents
- menstruation

- changing body shape
- better at following directions
- making responsible decisions
- peer influence
- making plans

- concern for other people
- thinking more about the opposite sex
- hair growing on different body parts

FAMILY LIFE**GRADE: 5****LESSON: 4****THEME: HUMAN DEVELOPMENT
AND REPRODUCTION**

CONCEPT: THE REPRODUCTIVE SYSTEM ENABLES HUMAN LIFE TO BEGIN

- PREPARATION:**
- 1 Overhead transparency of Activity Sheets FL44A, 44B
-
- 2 Prepare a class set of Reproductive Function Cards (Activity Sheet FL45)
-
- 3 Materials for flip chart book
-

VOCABULARY: semen, fluid

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES				
Students will be able to: i) describe the functions of the male reproductive organs	Students: 1. Review the names and location of the male reproductive organs. 2. Describe the functions of the male reproductive organs.	Background Information Page FL64 to FL67 Refer to Activity Sheets FL44A. Use the overhead transparency to review. This is a review of Grade 4. Lesson 5. Refer to Activity Sheets FL44A, 44B. Record information using a pocket chart and sentence strips as illustrated: <table border="1" data-bbox="1163 1305 1782 1414"><tr><td>The testicles</td><td>produce sperm</td></tr><tr><td>The scrotum</td><td>is the bag which holds the testicles</td></tr></table>	The testicles	produce sperm	The scrotum	is the bag which holds the testicles
The testicles	produce sperm					
The scrotum	is the bag which holds the testicles					

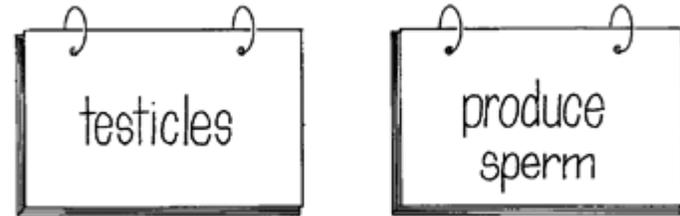
OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES														
	<p>3. Listen to a series of statements and decide if they are True/False.</p>	<table border="0"> <tr> <td data-bbox="1157 277 1304 321">The tubes</td> <td data-bbox="1373 277 1730 321">carry the sperm to the urethra</td> </tr> <tr> <td data-bbox="1157 337 1304 381">The glands</td> <td data-bbox="1373 337 1822 381">add fluid to the sperm to make semen</td> </tr> <tr> <td data-bbox="1157 397 1304 441">The urethra</td> <td data-bbox="1373 397 1713 441">carries urine out of the body</td> </tr> <tr> <td data-bbox="1157 457 1304 501">The urethra</td> <td data-bbox="1373 457 1730 501">carries semen out of the body</td> </tr> <tr> <td data-bbox="1157 518 1297 589">The penis</td> <td data-bbox="1373 518 1906 589">holds the urethra which carries the sperm and urine out of the body at different times</td> </tr> <tr> <td data-bbox="1157 605 1297 649">The sperm</td> <td data-bbox="1373 605 1705 649">is the male reproductive cell</td> </tr> <tr> <td data-bbox="1157 665 1297 709">The sperm</td> <td data-bbox="1373 665 1650 709">lives for 24 to 72 hours</td> </tr> </table> <p>Note: Although the sperm is not a reproductive organ, it is important for students to know what it is and its function.</p> <p>Give each student a piece of paper. They number it from 1 to 10. Read a series of statements about the functions of the male reproductive organs. Students write down whether they think each statement is T or F. Afterwards have students talk about their answers in pairs before the class discusses the correct answers. (Do not mark how many are correct/incorrect. This is not a test.)</p>	The tubes	carry the sperm to the urethra	The glands	add fluid to the sperm to make semen	The urethra	carries urine out of the body	The urethra	carries semen out of the body	The penis	holds the urethra which carries the sperm and urine out of the body at different times	The sperm	is the male reproductive cell	The sperm	lives for 24 to 72 hours
The tubes	carry the sperm to the urethra															
The glands	add fluid to the sperm to make semen															
The urethra	carries urine out of the body															
The urethra	carries semen out of the body															
The penis	holds the urethra which carries the sperm and urine out of the body at different times															
The sperm	is the male reproductive cell															
The sperm	lives for 24 to 72 hours															

OBJECTIVES**STUDENT ACTIVITIES****TEACHER NOTES**

4. Match male reproductive organs to the function.

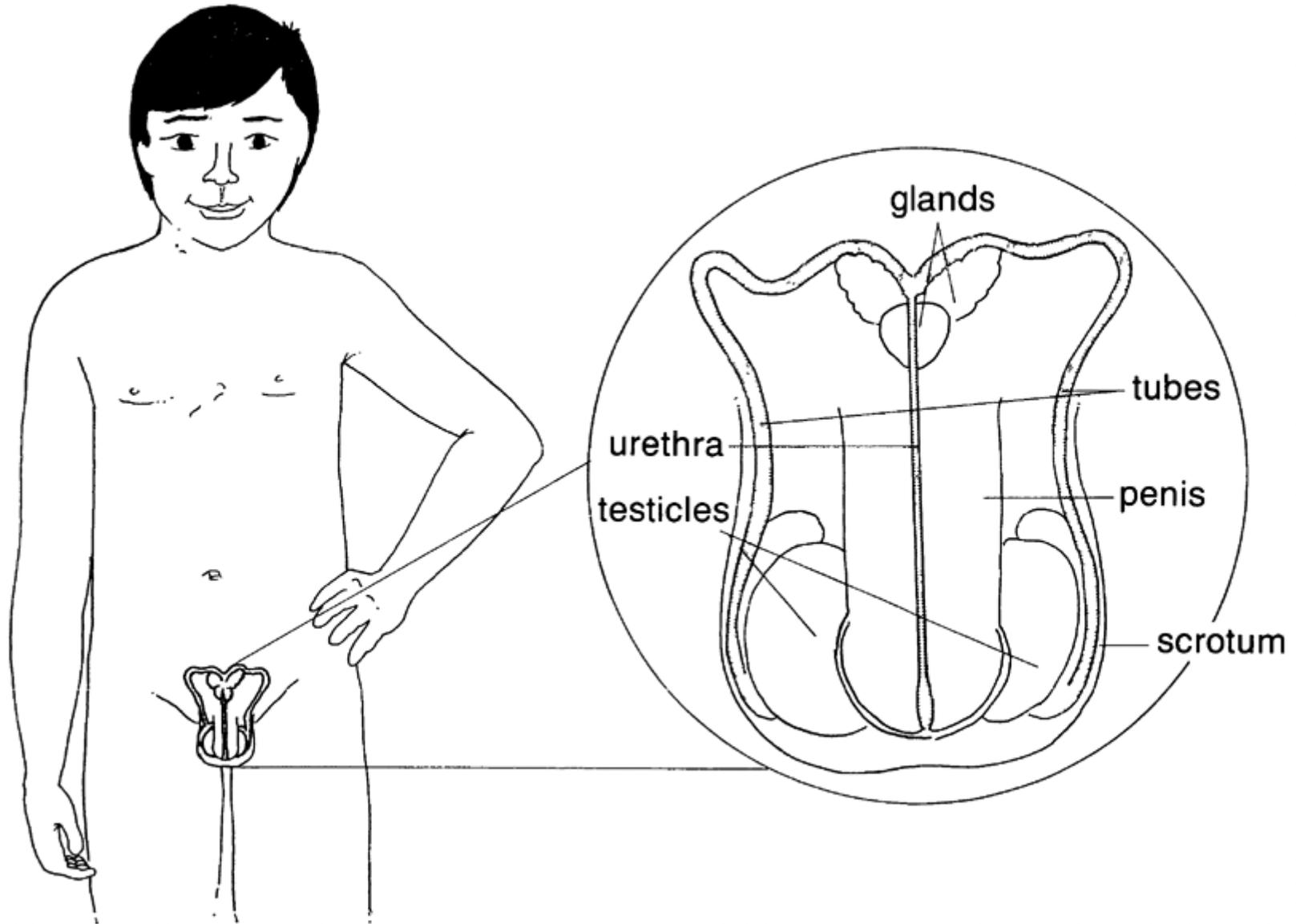
Refer to Activity Sheet FL45.

Have students cut each card in two. (These can be laminated for extra strength.) Mix them up. Make them into a flip book and practise matching name and function.



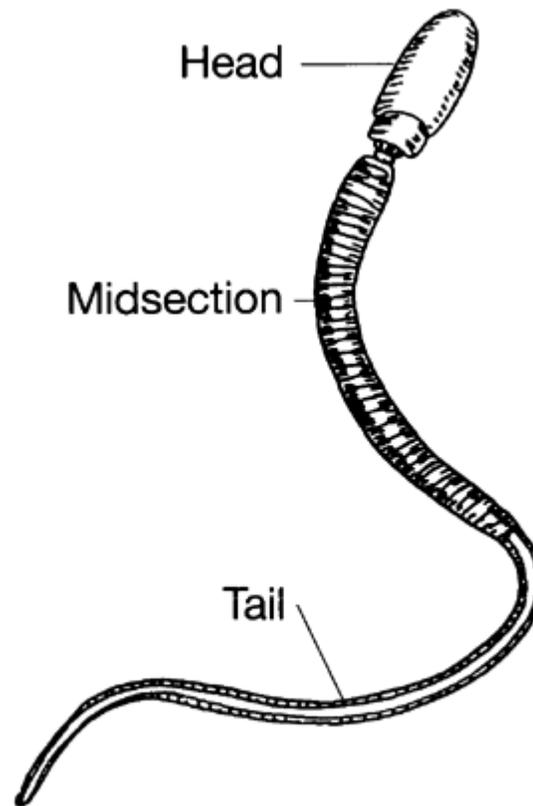
Save this flip book for the next lesson.

MALE REPRODUCTIVE SYSTEM



HUMAN SPERM

This is a greatly enlarged illustration of a sperm. The naked eye cannot see a sperm.



MALE REPRODUCTIVE FUNCTION CARDS

Parts	Functions
testicles	produce sperm
scrotum	is the bag which holds the testicles
tubes	carry the sperm from the testicles to the urethra
glands	add fluid to the sperm to make semen
urethra	carries the sperm out of the body
urethra	carries the urine out of the body
penis	holds the urethra which carries the sperm and urine out of the body
sperm	is the male reproductive cell

FAMILY LIFE**GRADE: 5****LESSON: 5****THEME: HUMAN DEVELOPMENT
AND REPRODUCTION**

CONCEPT: THE REPRODUCTIVE SYSTEM ENABLES HUMAN LIFE TO BEGIN

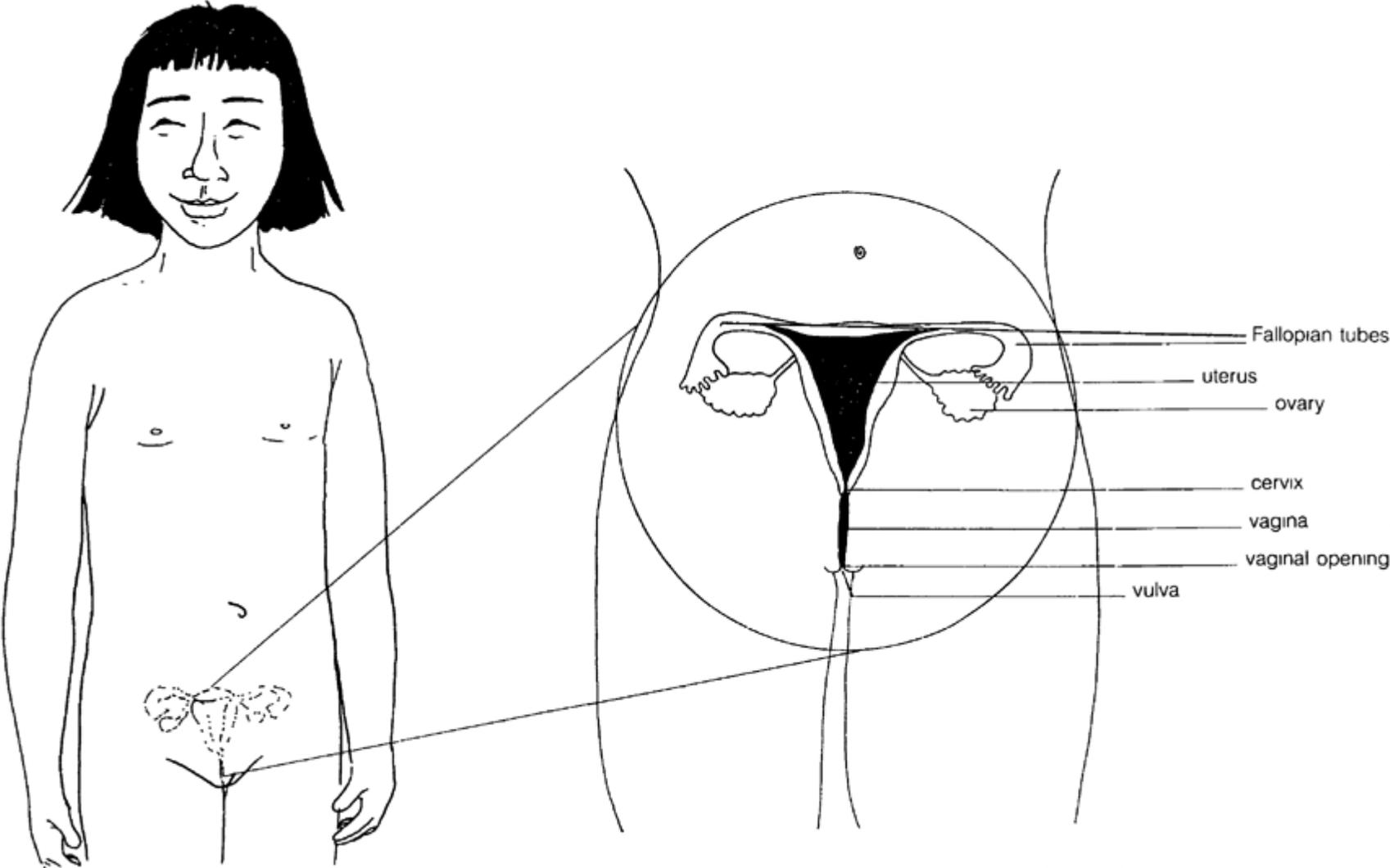
- PREPARATION:**
1. Overhead transparency of Activity Sheet FL46
 2. Prepare a class set of Female Reproductive System Cards (Activity Sheet FL47); cut the cards in half, hide enough function cards for each student around the room
 3. materials for flip book
-

VOCABULARY:

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES				
Students will be able to: i) describe the functions of the female reproductive organs	Students: 1. Review the names and location of the female reproductive organs. 2. Describe the functions of the female reproductive organs.	Background Information Page FL64 to FL67. Refer to Activity Sheet FL46. Use the overhead transparency to review. This is a review of Grade 4, Lesson 6. Record the information using a pocket chart and sentence strips as illustrated.: <table border="1" data-bbox="1165 1295 1843 1425"><tr><td data-bbox="1165 1295 1339 1344">The ovaries</td><td data-bbox="1367 1295 1843 1344">are where eggs develop and are stored</td></tr><tr><td data-bbox="1165 1352 1339 1425">The Fallopian tubes</td><td data-bbox="1367 1352 1696 1425">carry the egg to the uterus</td></tr></table>	The ovaries	are where eggs develop and are stored	The Fallopian tubes	carry the egg to the uterus
The ovaries	are where eggs develop and are stored					
The Fallopian tubes	carry the egg to the uterus					

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES										
	<p>3. Play Find the Function.</p> <p>4. Match female reproductive organs to function.</p>	<table border="1" data-bbox="1161 280 1850 565"> <tr> <td>The uterus</td> <td>is where the egg grows into a baby</td> </tr> <tr> <td>The cervix</td> <td>is the opening to the uterus</td> </tr> <tr> <td>The vagina</td> <td>is the opening which receives the sperm</td> </tr> <tr> <td>The ovum/egg</td> <td>is the female reproductive cell</td> </tr> <tr> <td>The ovum</td> <td>lives for 48 to 72 hours</td> </tr> </table> <p>Note: Although the ovum is not a reproductive organ, it is important for students to know what it is and does.</p> <p>Use Activity Sheet FL47.</p> <p>Prior to the class, hide papers with the functions (enough for six for each student) around the classroom. Students have to find six function papers. Give each student a set of Reproductive Part cards. Students then trade with other students until they have one function card to fit each body part.</p> <p>Use Activity Sheet FL47.</p> <p>Add to the flip book from previous lesson. Practise matching name and function of female reproductive parts.</p>	The uterus	is where the egg grows into a baby	The cervix	is the opening to the uterus	The vagina	is the opening which receives the sperm	The ovum/egg	is the female reproductive cell	The ovum	lives for 48 to 72 hours
The uterus	is where the egg grows into a baby											
The cervix	is the opening to the uterus											
The vagina	is the opening which receives the sperm											
The ovum/egg	is the female reproductive cell											
The ovum	lives for 48 to 72 hours											

FEMALE REPRODUCTIVE SYSTEM



FEMALE REPRODUCTIVE SYSTEM

Teacher Instructions: Make a class set of these cards. Hide all Function cards around the room before the class. (See Student Activity 3)

Reproductive Part	Function
The uterus	is where the egg grows into a baby.
The vagina	is the opening which receives the sperm.
The Fallopian tubes	carry the egg to the uterus.
The cervix	is the opening to the uterus.
The ovaries	are where eggs develop and are stored.
The ovum	is the female reproductive cell.

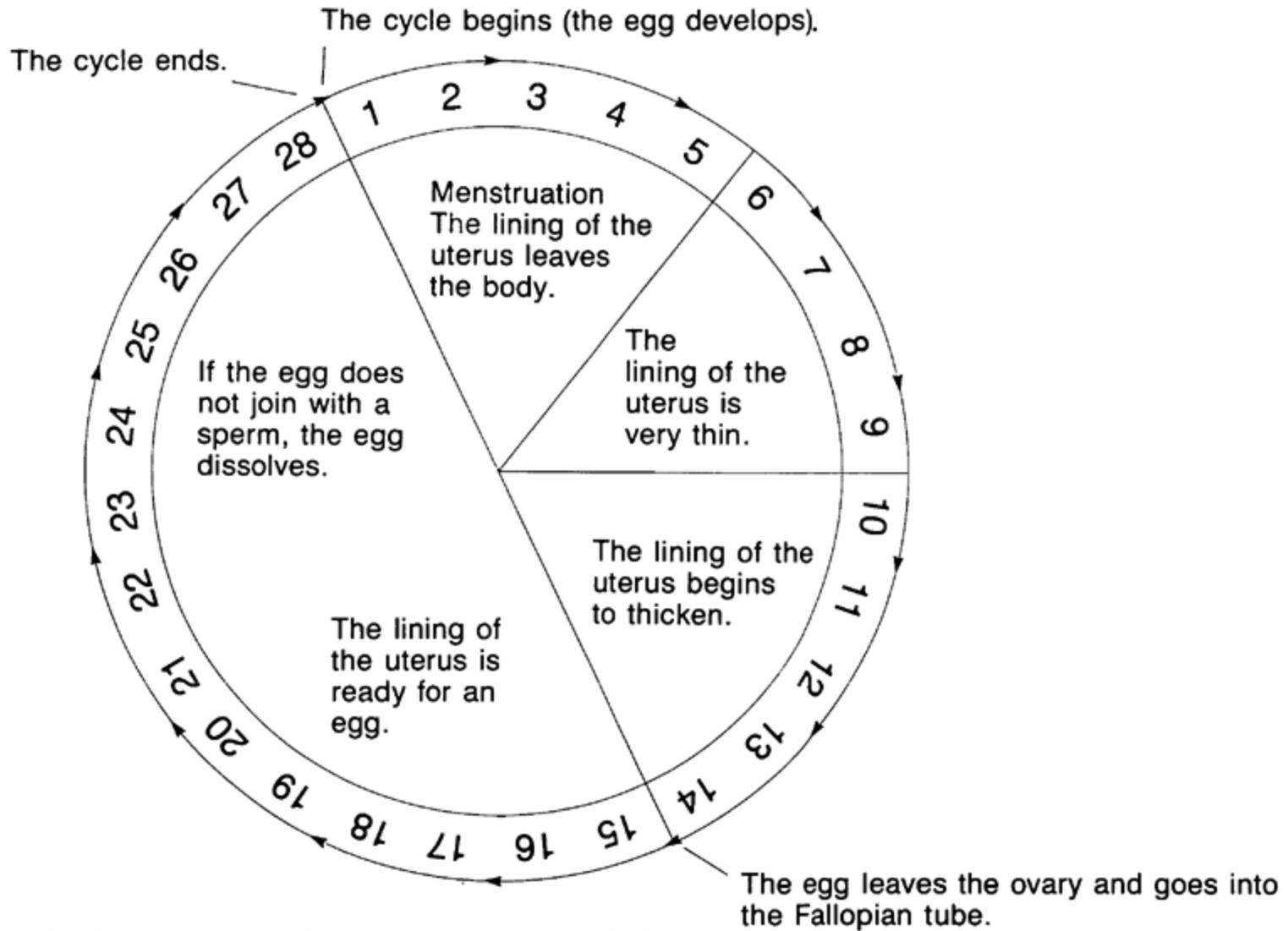
CONCEPT: MENSTRUATION IS A NATURAL OCCURRENCE IN FEMALES

- PREPARATION:**
- 1 Several sets of the word menstruation written on large cards, cut into pieces
 - 2 Overhead transparency of the Menstrual Cycle (Activity Sheet FL48)
 - 3 Prepare a class set of Menstrual Cycle worksheets (Activity Sheet FL49)
 - 4 A number of different types of sanitary pads
 - 5 Prepare a class set of Word Find worksheets (Activity Sheet FL50A)

VOCABULARY: menstruation, cycle, pads, tampons

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
<p>Students will be able to:</p> <p>i) identify the main events of the menstrual cycle</p>	<p>Students:</p> <ol style="list-style-type: none"> 1. Review the female reproductive organs. 2. Describe the process of egg production. 	<p>Background Information: Page 68 to FL71</p> <p>Much of this lesson is a repeat of the optional lessons for Girls in Grade 4, Lesson 7.</p> <p>Refer to Activity Sheet FL46 from previous lesson.</p> <p>Use the overhead transparency to review.</p> <p>Ask students how the egg is produced. Have the students respond using the sentence pattern:</p> <p>Every month, _____</p> <ul style="list-style-type: none"> - the uterus makes a thick lining for an egg - an egg leaves the ovaries - the egg dissolves if it does not join with a sperm - the body gets rid of the lining of the uterus - this happens in women

THE MENSTRUAL CYCLE



THE MENSTRUAL CYCLE

Directions

1. Mark the start and end of the cycle.
2. Mark when the egg leaves the ovary.
3. Put the following sentences in the correct order on the blank cycle:

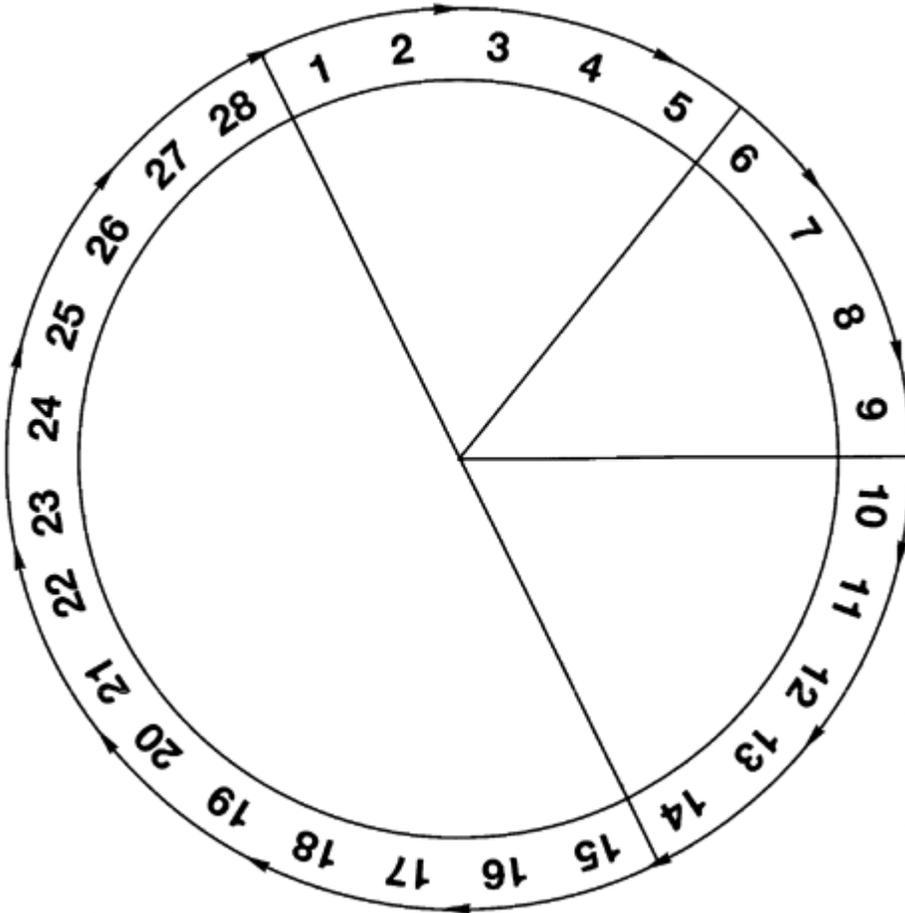
The lining of the uterus is ready for an egg.

The lining of the uterus is very thin.

The lining of the uterus leaves the body (menstruation).

The lining of the uterus begins to thicken.

If the egg does not join with a sperm, the egg dissolves.



MENSTRUATION WORD FIND

Find these words and circle them.

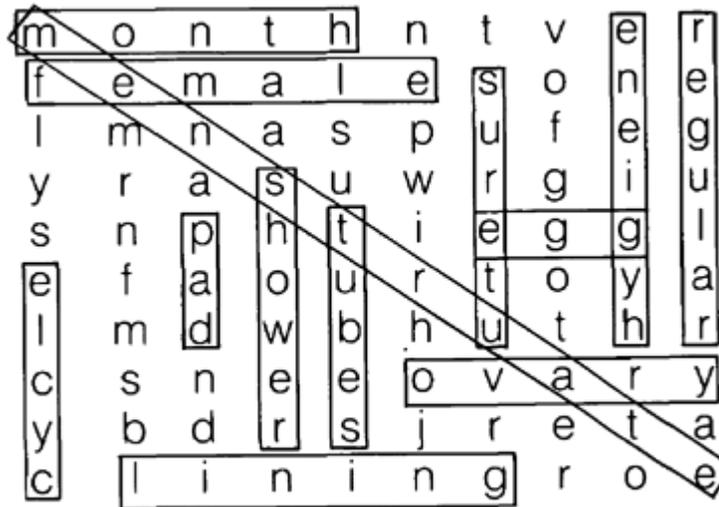
- menstruate
- month
- egg
- uterus
- shower
- pad
- ovary
- females
- tubes
- hygiene
- cycle
- regular
- lining

m	o	n	t	h	n	t	v	e	r
f	e	m	a	l	e	s	o	n	e
l	m	n	a	s	p	u	f	e	g
y	r	a	s	u	w	r	g	i	u
s	n	p	h	t	i	e	g	g	l
e	f	a	o	u	r	t	o	y	a
l	m	d	w	b	h	u	t	h	r
c	s	n	e	e	o	v	a	r	y
y	b	d	r	s	j	r	e	t	a
c	l	i	n	i	n	g	r	o	e

They may be found up ↑ , down ↓ , across → , or diagonally ↗ ↘

MENSTRUATION WORD FIND

(Answer Guide)



FAMILY LIFE**GRADE: 5****LESSON: 7****THEME: HUMAN DEVELOPMENT
AND REPRODUCTION**

CONCEPT: HUMAN LIFE IS FORMED BY THE UNION OF AN EGG AND A SPERM

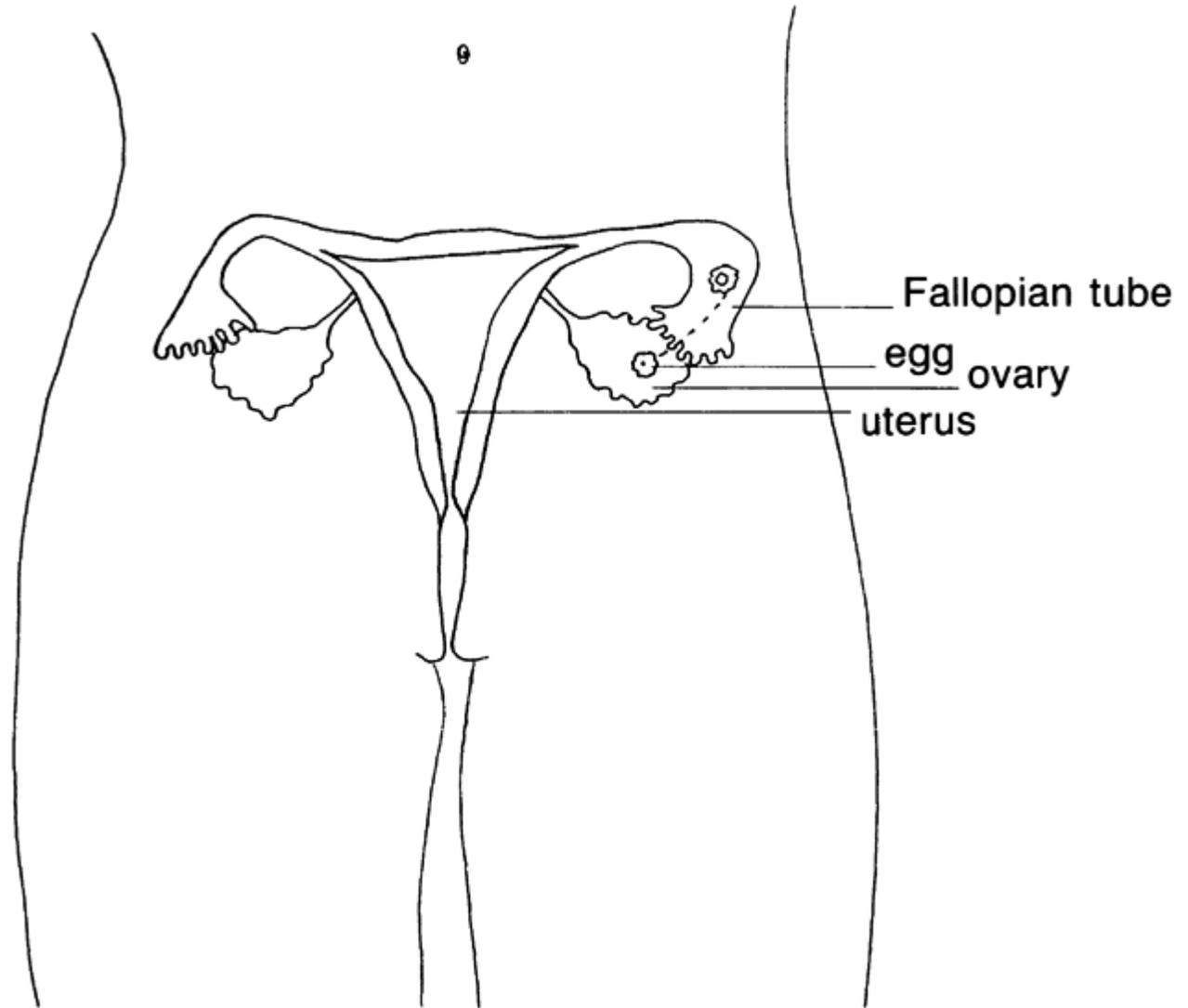
PREPARATION: 1. Overhead transparencies of Activity Sheet FL51, 52
2 .Materials for egg shaped book

VOCABULARY: fertilization, conception, intercourse

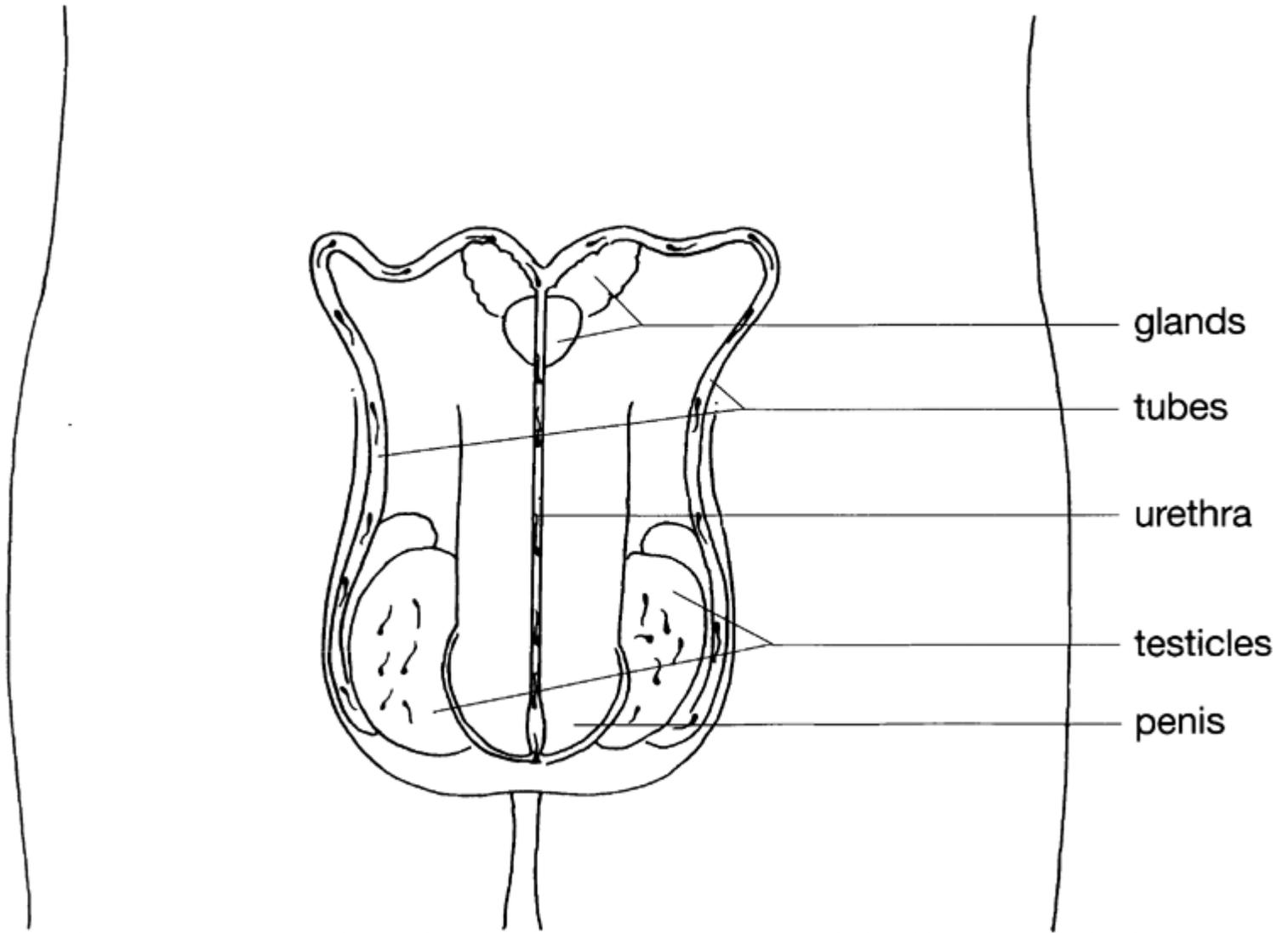
OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
Students will be able to: i) describe the journey of an egg	Students: 1. Review that human babies are created from an egg and a sperm. 2. Review the female reproductive organs. 3. Describe the journey of the egg.	Background Information: Page FL64 to FL67 This is a review of Grade 3, Lessons 4 and 5. Refer to Activity Sheet FL46 from Grade 5, Lesson 5. Use the overhead transparency to review. Refer to Activity Sheet FL51. Use the overhead transparency.

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
ii) describe the journey of the sperm	<p>4. Review the male reproductive organs.</p> <p>5. Describe the journey of the sperm.</p>	<p>Ask students to describe the journey the egg takes. Have students respond using the sentence pattern:</p> <p>The egg travels _____.</p> <ul style="list-style-type: none"> - out of the ovary - along the Fallopian tubes - into the uterus <p>Refer to Activity Sheets FL44A, 44B from Grade 5, Lesson 4.</p> <p>Use the overhead transparencies to review.</p> <p>Refer to Activity Sheet FL52.</p> <p>Use the overhead transparency.</p> <p>Ask students to describe the journey the sperm takes. Have students respond using the sentence pattern.</p> <p>The sperm travels _____.</p> <ul style="list-style-type: none"> - out of the testicles - along the tubes - beside the glands - along the urethra - out of the body through the tip of the penis
iii) describe the process of human fertilization	<p>6. Define the terms fertilization and conception.</p> <p>7. Make a list of words related to fertilization.</p>	<p>Use a dictionary and discussion to define the terms. Students should understand that fertilization is the union of a sperm cell with an egg. Conception is the product of fertilization, the new life that begins to form.</p> <p>fertile, fertilize, fertilization, fertilizer</p>

THE JOURNEY OF THE EGG



THE JOURNEY OF THE SPERM



GRADE 5

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 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.

PUBERTY

Puberty is the stage of life when the body changes from that of a child into that of an adult. It is the time when the male/female body develops the capacity to reproduce. Puberty begins at different times for different people and progresses at different rates among individuals. Girls can begin puberty between eight and ten years of age. Boys generally enter puberty two years later at ten to twelve years. The production of hormones stops the growth of girls at approximately sixteen years of age, boys at eighteen years.

Puberty signals the beginning of adolescence, the period of development which leads to adulthood. During this period, young people experience a number of physical, emotional, social and mental changes.

	Males	Females
Changes related to reproduction	<ul style="list-style-type: none"> - penis, scrotum and testicles get bigger and mature - endocrine glands secrete hormones which produce sperm - erections may occur - ejaculation may occur 	<ul style="list-style-type: none"> - vulva, vagina and uterus get bigger - endocrine glands secrete hormones which trigger the beginning of ovulation and menstruation - eggs (ova) develop in the ovaries - cervix produces mucus
General Changes	<ul style="list-style-type: none"> - height and weight increase - shoulders get broader - muscles develop - growth of body hair <ul style="list-style-type: none"> - on upper lip. Face - chest - under arms - in pubic areas - skin changes <ul style="list-style-type: none"> - becomes oilier and coarser - increased chance of pimples and acne - increased body perspiration and odour - voice breaks and deepens 	<ul style="list-style-type: none"> - height and weight increase - body fat and supporting tissue increase, especially around hips - breasts develop - growth of body hair <ul style="list-style-type: none"> - under arms - on arms and legs - in pubic areas - skin changes <ul style="list-style-type: none"> - becomes oilier and coarser - increased chance of pimples and acne - increased body perspiration and odour - voice deepens, but not as much as in males - face becomes fuller - nipples stand out

Males

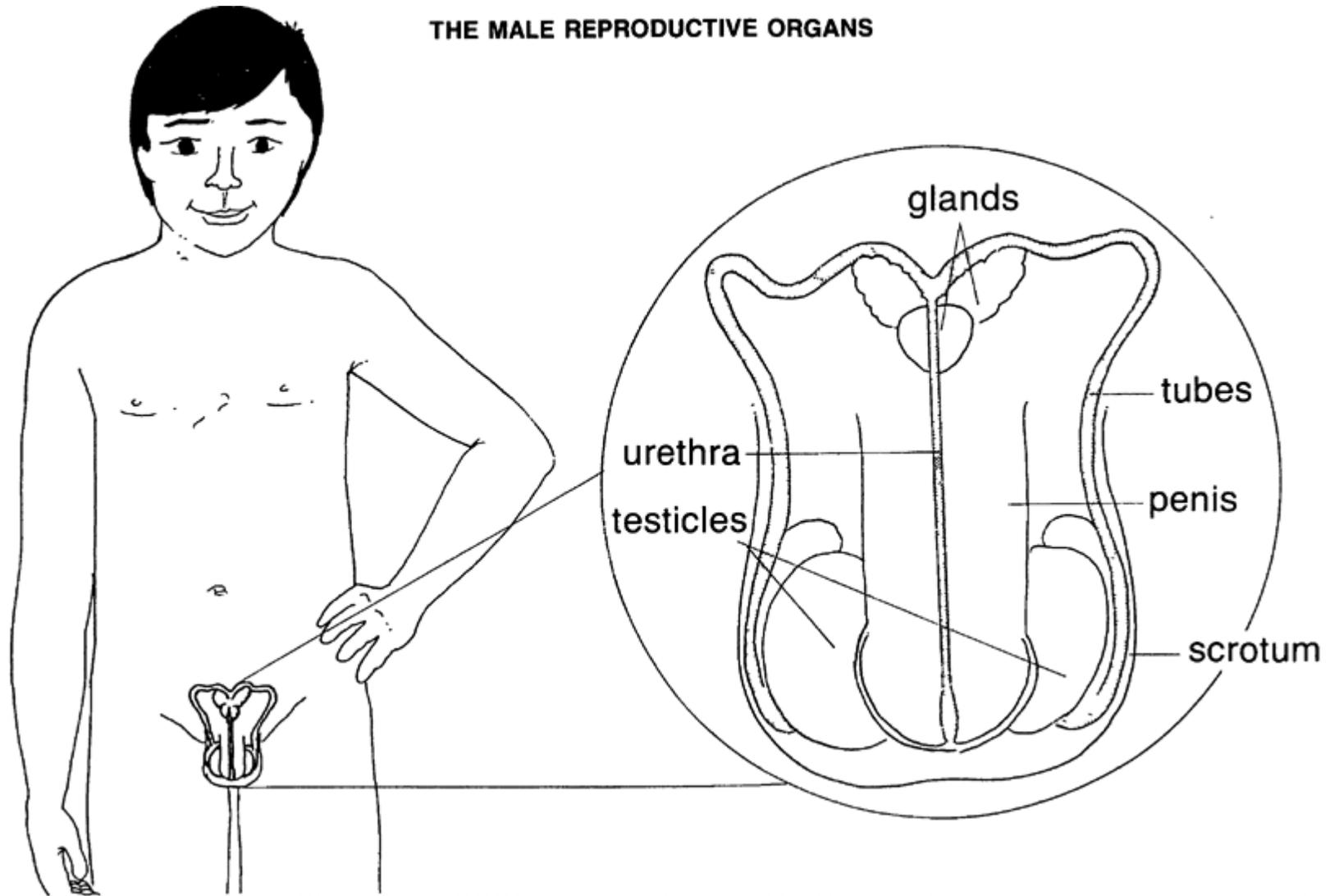
Females

Mental/Emotional/Social Changes

- skills develop over time →
- planning →
- decision-making →
- thinking →
- communication →
- attitude towards opposite sex changes →
- acceptance by the group is important →
- spend more time with friends →
- more aware of other people s feelings →
- mood swings →
- sexual feelings develop →

THE REPRODUCTIVE SYSTEM

The reproductive system is the system which begins to develop during puberty. It is the system which, when fully matured, allows new life to begin.



TERMS RELATED TO THE MALE REPRODUCTIVE SYSTEM

sperm the male reproductive cell, it generally lives for 24 to 72 hours, 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

glands: the sperm passes many glands, these glands produce fluids which protect and lubricate the sperm, the mixture of sperm and fluids is called semen

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

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

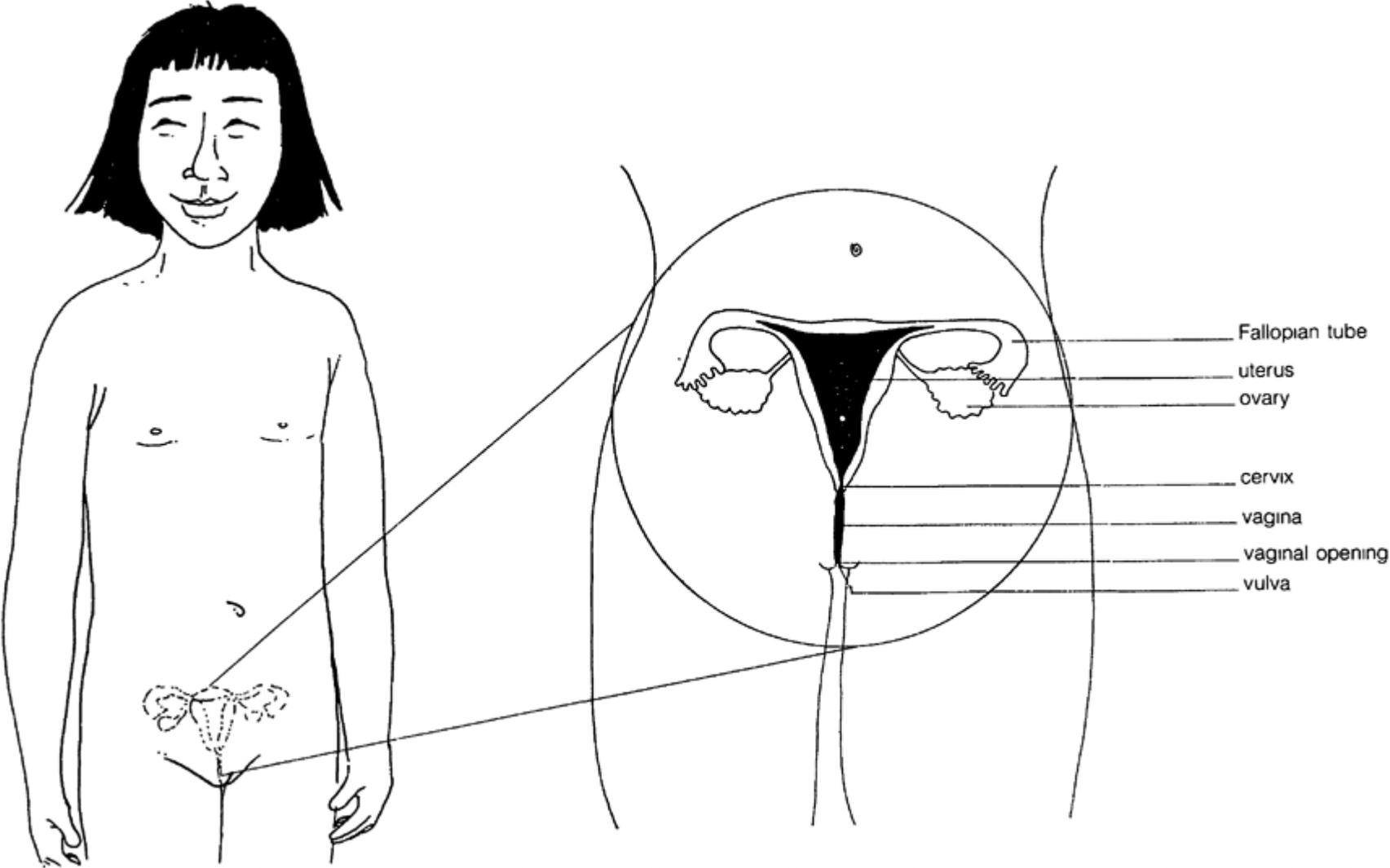
ejaculation: the discharging of semen from the body through the penis

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.

THE FEMALE REPRODUCTIVE ORGANS



TERMS RELATED TO THE FEMALE REPRODUCTIVE SYSTEMS

- egg:** the female reproductive cell; it generally lives for 48 to 72 hours; 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 leaves the body at menstruation; the opening through which the male penis enters during sexual intercourse; the opening through which a baby is born
- cervix:** the neck of the uterus
- 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 develop and are stored; once a month; an egg is released from 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 in the Fallopian tubes

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 in the testicles, and is released during sexual stimulation.
- The pathway of the sperm:** The sperm travels from the testicles along the tube (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:** 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.

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 varies 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 from then until menopause, usually around 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 twelve to sixteen days before the menstrual flow occurs 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.

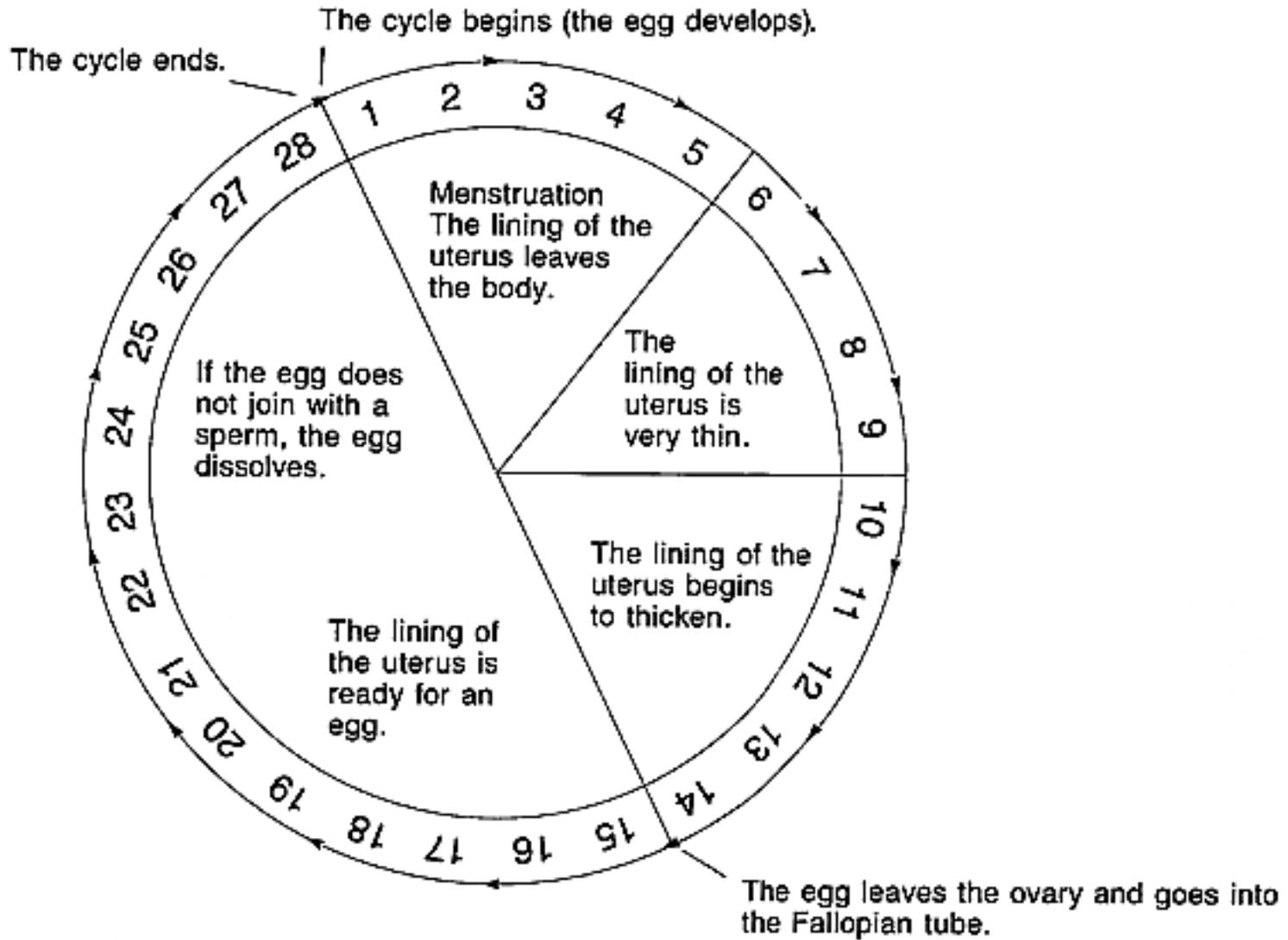
If the egg is not fertilized, it dissolves. The lining of the uterus is not needed to nourish and protect a baby, and so it is shed and leaves the body through the vagina. The flow of blood and tissue is called menstruation, a menstrual period, or a monthly period.

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.

THE MENSTRUAL CYCLE



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.

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 in 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

Still in some primitive tribes, menstruating women 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.

GRADE 5

DENTAL HEALTH

DENTAL HEALTH**GRADE: 5****LESSON: 1****THEME: ORAL HYGIENE**

CONCEPT: REGULAR PRACTICE OF EFFECTIVE ORAL HYGIENE PROMOTES DENTAL HEALTH

PREPARATION: 1 A class set of toothbrushes, disclosing tablets, floss, toothpaste, oral hand mirrors
2 Prepare a class set of Rating My Brushing and Flossing (Activity Sheet D38)
3. Prepare an overhead transparency of Tooth Decay Process (Activity Sheet D39)

VOCABULARY: debris, plaque, disclosing tablet

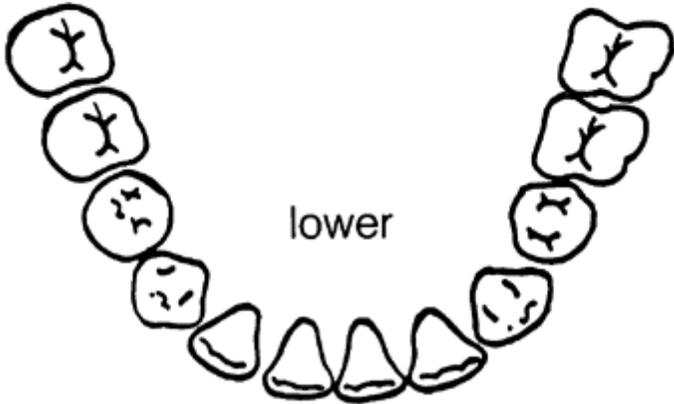
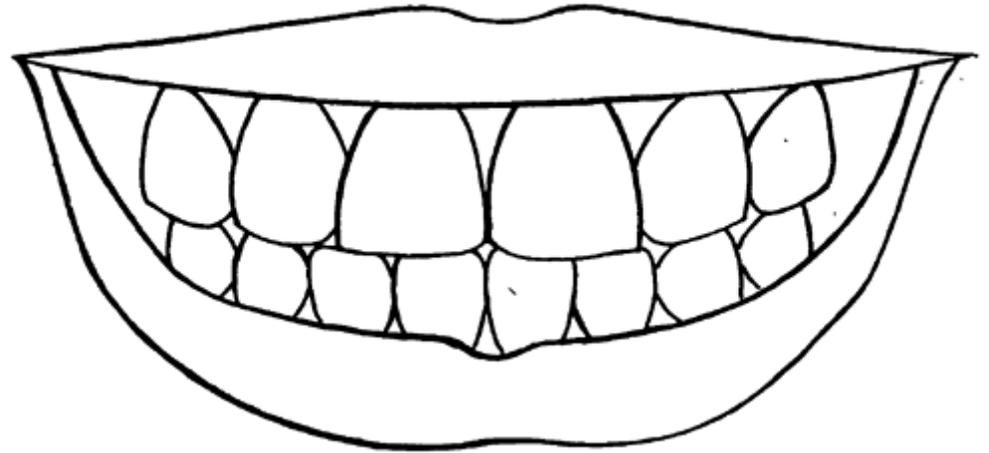
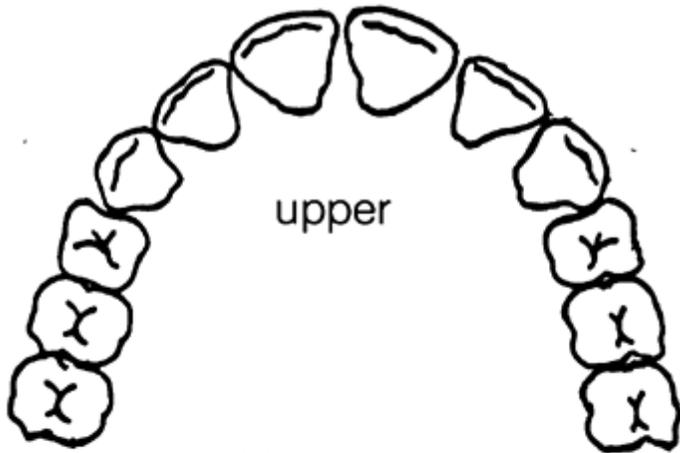
OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
Students will be able to: i) appraise toothbrushing and flossing skills	Students: 1. Floss and brush teeth thoroughly 2. Complete Rating My Flossing and Brushing worksheet. 3. Floss and brush teeth thoroughly to remove any remaining plaque	Background Information Page - D26 to D29 <i>Without</i> reviewing proper flossing and brushing techniques have students floss and brush their teeth - don't tell them which to do first. Refer to Activity Sheet D38 Have students chew disclosing tablets and use hand mirrors to locate plaque (areas stained red). Have students record plaque areas on Activity Sheet D38 Review proper flossing and brushing techniques. Have students floss and brush their teeth again to remove remaining plaque from teeth.

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
	<p>4. Discuss why thorough daily brushing and flossing of teeth is important.</p>	<p>Refer to Activity Sheet D39.</p> <p>Flossing and brushing are important because they remove food debris and plaque from the teeth.</p> <p>Plaque is the leading cause of tooth decay. Review this concept using an overhead transparency of Activity Sheet D39 (This is a review of grade 4.)</p> <p>Daily flossing and brushing help teeth last a lifetime. Teachers are encouraged to provide a brushing program at school to support the home in promoting positive dental health behaviours.</p>

RATING MY BRUSHING AND FLOSSING

D38

Directions: Shade in areas where plaque is still on your teeth.



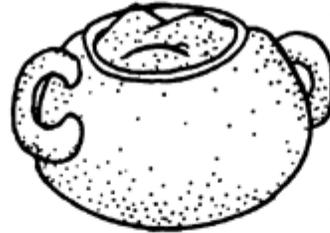
Areas to improve my flossing and brushing are:

TOOTH DECAY PROCESS



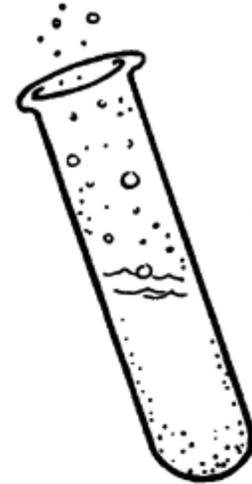
plaque

+

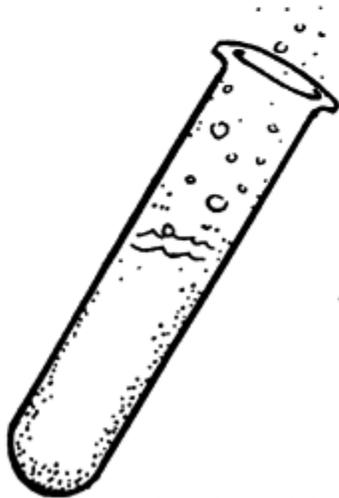


sugar

=

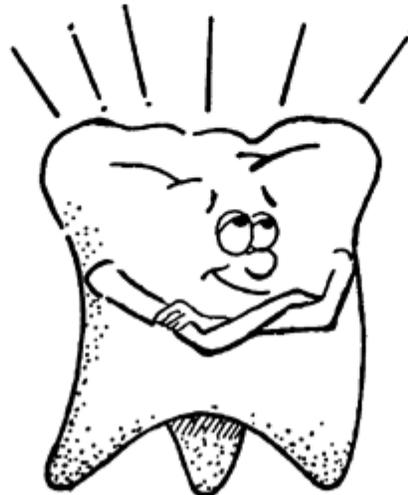


acid



acid

+



tooth

=



tooth decay

DENTAL HEALTH**GRADE: 5****LESSON: 2****THEME: FACTORS AFFECTING DENTAL HEALTH**

CONCEPT: USE OF TOBACCO PRODUCTS AFFECTS ORAL HEALTH

PREPARATION: 1. Transparent, squeezable, plastic container with lid, such as a window cleaner container, ball point pen barrel, cotton ball, cigarette, matches, ashtray
2. Cigarettes, matches, glass jar with holes in lid
3. Prior to class invite a health professional to talk about the effects of tobacco on oral health

VOCABULARY: tobacco products (cigarettes, snuff, chewing tobacco), residue, tar, nicotine, haiku

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
Students will be able to: i) identify the effects of tobacco products on oral health	Students: 1 Observe a demonstration of the residue left on the teeth after using tobacco.	Background Information: Page - D34 Choose one of the following experiments. Experiment #1: The following experiment is a bit tricky to set up, but is very effective if you persevere. Purpose: To show the accumulation of tar in cotton balls.

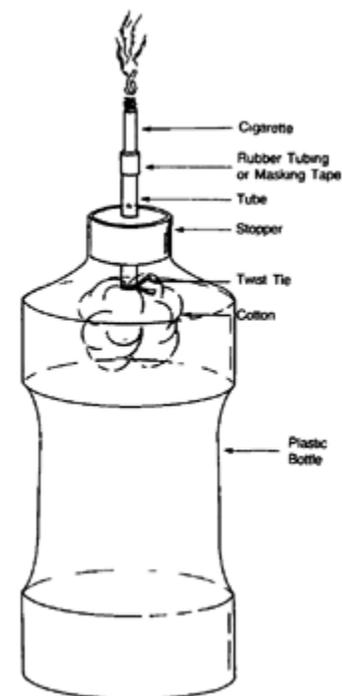
OBJECTIVES**STUDENT ACTIVITIES****TEACHER NOTES****Equipment:**

- 1 Plastic window cleaner container, or other empty plastic container, transparent if possible and squeezable
- 2 Ball point pen barrel or other tubing approximately the size of a cigarette
- 3 Cotton ball, or cotton from a medicine bottle
- 4 Cigarettes and matches
- 5 Ashtray or other item to catch ashes

Procedure:

You may wish to conduct experiments outside or with the windows open to avoid side stream smoke.

1. Rinse the container thoroughly.
2. Drill an opening in the cap of the container to fit the tubing into the cap.
3. Place the tubing in the opening and seal tight with cement or clay if needed.
4. Insert loosely packed cotton ball into tubing (Cotton may protrude into container).
5. Insert cigarette into open end of tubing
6. Press firmly on the plastic container to force air out, light the cigarette, and then proceed with slow and regular pumping action, until cigarette is smoked.
7. Withdraw cotton from tubing to show accumulation of tar.
8. Pass container around for individuals to smell and to observe that smoke continues to be expelled for a period of time.



OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
		<p>Variation:</p> <ol style="list-style-type: none"> 1. Divide into groups and conduct several experiments keeping close supervision for safety. 2. Compare filter and non-filter cigarettes, as well as different brands of cigarettes. <p>Key Points for Discussion:</p> <ol style="list-style-type: none"> 1. What happens to your teeth when you smoke 2. Why do some brands leave a darker stain on the cotton? (Stronger brands have more tar and nicotine.) 3. Consider this effect multiplied by 20 or 30 times per day for 5, 10, or 20 years <p>Source: American School Health Association</p> <p>Experiment # 2:</p> <p>Purpose: To show the accumulation of tar and nicotine on glass.</p> <p>Equipment:</p> <ol style="list-style-type: none"> 1. Small glass jar with holes in lid 2. Strong cigarette, matches <p>Procedure:</p> <ol style="list-style-type: none"> 1. Place cigarette inside the small clear glass jar. 2. Ignite the cigarette and place lid on jar. 3. Allow the cigarette to burn. 4. Observations can be made about the smell and residue left on the inner glass. 5. Have students feel and smell the nicotine-tar residue. <p>Key Points for Discussion:</p> <ol style="list-style-type: none"> 1. What happens to your teeth when you smoke ?

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES						
	<p>2. Discuss observations and draw conclusions about the effects of tobacco on teeth.</p> <p>3. Discuss effects of tobacco products on oral health.</p>	<p>2. Why do some brands leave a darker stain on the cotton? (Stronger brands have more tar and nicotine.)</p> <p>3. Consider this effect multiplied by 20 or 30 times per day for 5, 10, or 20 years.</p> <p>Lead students to conclude that residue from smoking is deposited on the teeth (and lungs) of a smoker.</p> <p>Ask the question, "What does smoking do to your teeth and mouth" Students respond:</p> <p>Smoking _____.</p> <p>e. g.,</p> <table border="0"> <tr> <td>- makes teeth yellow</td> <td>- leaves tar on teeth</td> </tr> <tr> <td>- causes bad breath</td> <td>- makes teeth dirty</td> </tr> <tr> <td>- leaves nicotine on teeth</td> <td>- etc</td> </tr> </table> <p>Explain that this happens with both smoked and smokeless tobacco.</p> <p>Brainstorm with students effects of tobacco products on oral health These should include:</p> <ul style="list-style-type: none"> - stained teeth - cancer of mouth, tongue, throat - gum disease - bad breath - poor tastebuds - residue left on tongue <p>Invite a health professional to discuss the effects of tobacco products on oral health.</p>	- makes teeth yellow	- leaves tar on teeth	- causes bad breath	- makes teeth dirty	- leaves nicotine on teeth	- etc
- makes teeth yellow	- leaves tar on teeth							
- causes bad breath	- makes teeth dirty							
- leaves nicotine on teeth	- etc							

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
		<p>Make up a poem or haiku about the effects of tobacco products on teeth .This may be done as a class or individually.</p> <p>Haiku has 3 unrhymed lines of 5, 7 and 5 syllables respectively.</p> <p>e.g .</p> <p>smelly, stinky tar yellow, brown, horrible teeth don't smoke, don't smoke, No</p>

DENTAL HEALTH**GRADE: 5****LESSON: 3****THEME: DENTAL SERVICES AND PRODUCTS**

CONCEPT: APPROVED DENTAL PRODUCTS PROMOTE DENTAL HEALTH

- PREPARATION:**
1. Prior to class arrange a field trip to a local store that sells dental products
 2. Check with local health authorities about fluorides in local water supply
 3. Materials for homemade toothpaste. small containers, measuring spoons, salt, baking soda, peppermint oil, spoons
 4. Class set of toothbrushes
-

VOCABULARY: bristles, rinses, advantages, disadvantages, abrasive, CDA approved, texture

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
<p>Students will be able to:</p> <p>i) state the benefits and any disadvantages of dental health products</p>	<p>Students:</p> <p>1. Visit the local store and make a list of all dental health products available. Identify products approved by the Canadian Dental Association.</p>	<p>Background Information: Page - D34</p> <p>Have students visit the local store(s) and make a list of all dental products available. These should include: brands of toothpaste, mouth washes, brushes, floss, tape, water piks, fluoride products.</p> <p>CDA approved products bear the CDA seal and contain fluoride. They include toothpaste and fluoride products (tablets, drops, vitamins, rinses and gels).</p> 

OBJECTIVES**STUDENT ACTIVITIES****TEACHER NOTES**

2. Explain benefits and disadvantages of dental health products.

Record student responses using an experience chart as illustrated.

Product	Advantages	Disadvantages
toothbrush	<ul style="list-style-type: none"> - soft round bristles clean teeth without damaging enamel or gums - removes food debris 	<ul style="list-style-type: none"> - old toothbrushes do not clean properly - may damage enamel and gums
f loss	<ul style="list-style-type: none"> - removes plaque at gum line - cleans between teeth 	<ul style="list-style-type: none"> - may cause gum damage if used improperly
water pik	<ul style="list-style-type: none"> - cleans gum line and braces 	<ul style="list-style-type: none"> - may cause gum damage if used improperly - expensive
rinses	<ul style="list-style-type: none"> - fluoride rinses, mouth washes 	<ul style="list-style-type: none"> - fluoridated dental products not necessary if local water supplies contain fluorides*

* Check with local nursing station or dental clinic

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
<p>ii) prepare a home-made toothpaste</p>	<p>3. Learn the poem "Brushes Are Good ."</p> <p>4. Prepare a home-made toothpaste Discuss the taste and texture and how well it works</p>	<p>Have students learn the following poem, or make up their own.</p> <p style="text-align: center;">Brushes Are Good...</p> <p>Brushes are good if the bristles are soft, But if they are hard your enamel is lost Be gentle with floss when you get rid of plaque You don't want your gums to think they're attacked. A water pik's neat if you've got the dough, And mouth wash is good when fluoride is low.</p> <p style="text-align: right;">- Barbara Hall</p> <p>Equipment:</p> <ol style="list-style-type: none"> 1. small container 2. 30 ml baking soda 3. 5 ml salt 4. several drops of peppermint or wintergreen oil <p>Procedure:</p> <ol style="list-style-type: none"> 1. In small groups measure and place the ingredients into the small container . 2. Mix thoroughly. Have students brush with the toothpaste. <p>Brainstorm with students how the toothpaste tastes, smells, feels and works.</p> <p>Have students respond using the sentence pattern:</p> <p style="padding-left: 40px;">Homemade toothpaste _____.</p> <p>Note: This toothpaste is extremely abrasive to tooth enamel if used on a daily basis, but can be used periodically.</p>

DENTAL HEALTH**GRADE: 5****LESSON: 4****THEME: DENTAL SERVICES AND PRODUCTS**

CONCEPT: DENTAL HEALTH WORKERS PLAY AN IMPORTANT ROLE IN DENTAL HEALTH CARE

PREPARATION: 1. Flashlight

VOCABULARY: cavities

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
Students will be able to: i) identify the roles of dental health professionals	Students: 1. List the tasks performed by dental health workers.	Background Information : Page - D35 to D36 Ask students to recall visits to the dental health worker or dentist and to list the things they do. Record responses on an overhead transparency using the sentence pattern. My dentist (or dental health worker) ... - looks for cavities - puts in a filling if I have a cavity - takes x-rays of my teeth - removes plaque from my teeth - checks to see if my gums are healthy - checks to see if my teeth are straight and properly spaced - teaches me how to brush and floss properly - teaches me what foods to eat to keep my teeth healthy

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
		<ul style="list-style-type: none"> - polishes my teeth - tells me to come back in six months <p>Using the ideas developed above, play Win, Lose or Draw.</p> <p>Following the model of the TV program of the same name.</p> <ol style="list-style-type: none"> 1. Divide students into two teams, Team A and Team B. 2. Show one of the tasks on the overhead transparency to the first student on Team A. 3. Using a flip chart and felt pen the student draws the task while his/her team-mates attempt to guess the dental health task being drawn. 4. If Team A guesses correctly, the team gets 1 point. 5. If, after 30 seconds, team A has not correctly guessed the task, Team B may guess <i>once</i>. If correct, Team B gets 1 point. 6. Repeat for Team B. 7. Continue alternating Team A and Team B until all dental health tasks have been drawn. <p>For a large class, divide the class into 4 teams and run two separate games with the help of a classroom assistant or volunteer.</p>

OBJECTIVES	STUDENT ACTIVITIES	TEACHER NOTES
	<p>2. Make a bubble puzzle describing tasks performed by dental health workers.</p>	<p>Divide students into small groups. Using the ideas developed in Student Activity 1 have each group make a bubble puzzle such as the following:</p> <p style="text-align: center;">My Dentist</p> <p style="text-align: center;"><i>Teaches me about goo (D) food</i></p> <p style="text-align: center;"><i>R (E) moves plaque</i></p> <p style="text-align: center;"><i>Remi (N) ds me to come back in six months</i></p> <p style="text-align: center;"><i>Fills cavi (T) ies</i></p> <p style="text-align: center;"><i>Checks if my teeth are stra (I) ght</i></p> <p style="text-align: center;"><i>Poli (S) hes my teeth</i></p> <p style="text-align: center;"><i>(T) akes x-rays</i></p> <p>Have them copy the puzzles into a large format and display in the school, nursing station or dental clinic.</p>

GRADE 5

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.

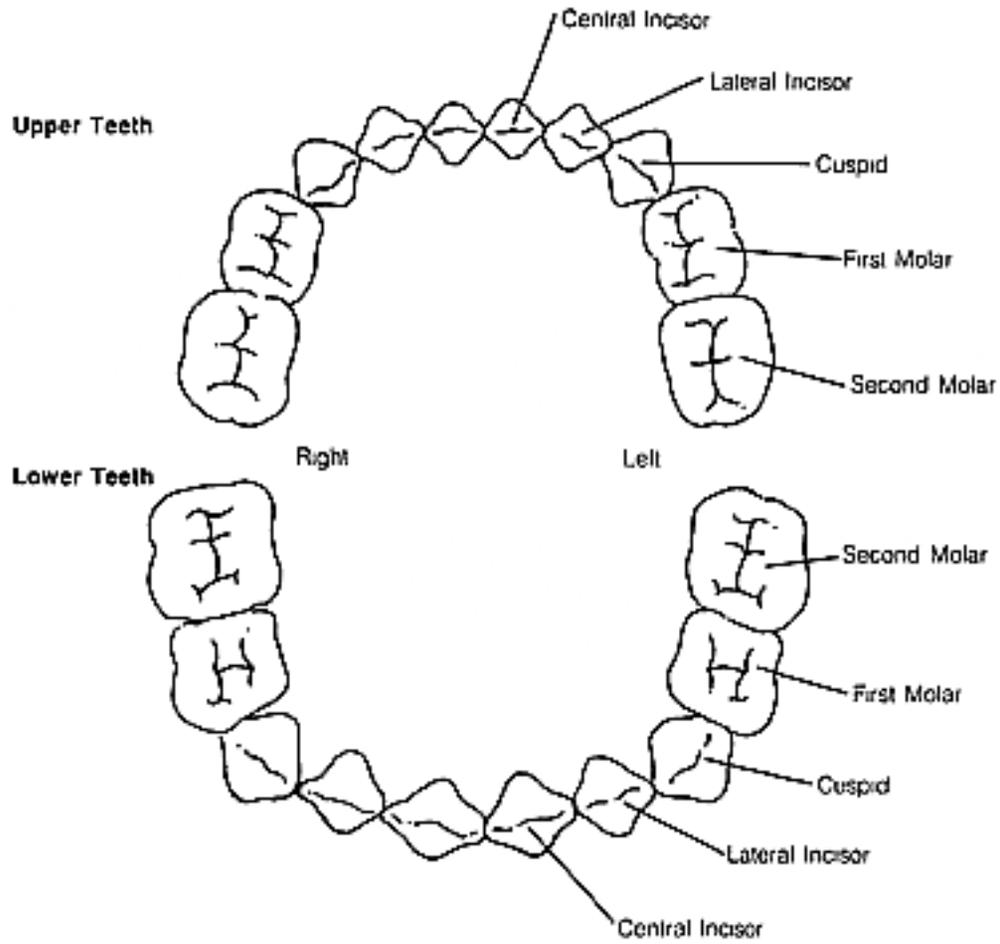
It is apparent that diet is an important factor in decay. The typical Canadian diet is high in refined carbohydrates, and is highly conducive to dental decay. Sticky candies or confections which adhere to the teeth or hard candies which are kept in the mouth for long periods of time are particularly 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.

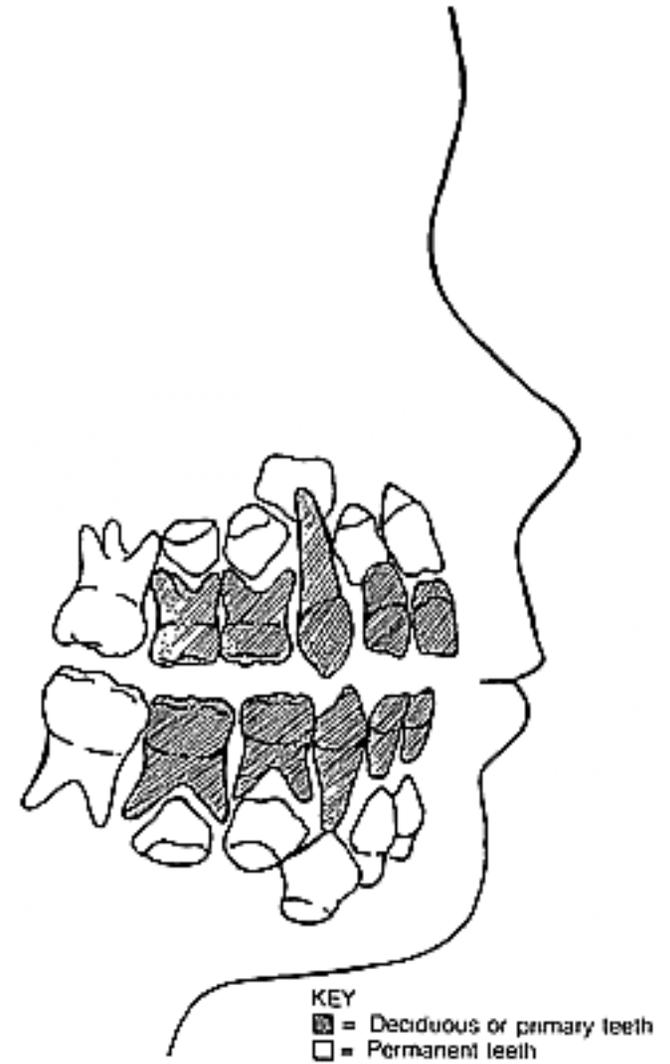
Good oral hygiene (proper brushing after each meal and brushing and flossing prior to going to bed) is difficult enough for adults to establish, for children, it is doubly difficult. Not only do young children lack the dexterity to brush and floss their teeth properly, but the benefits of such skills 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

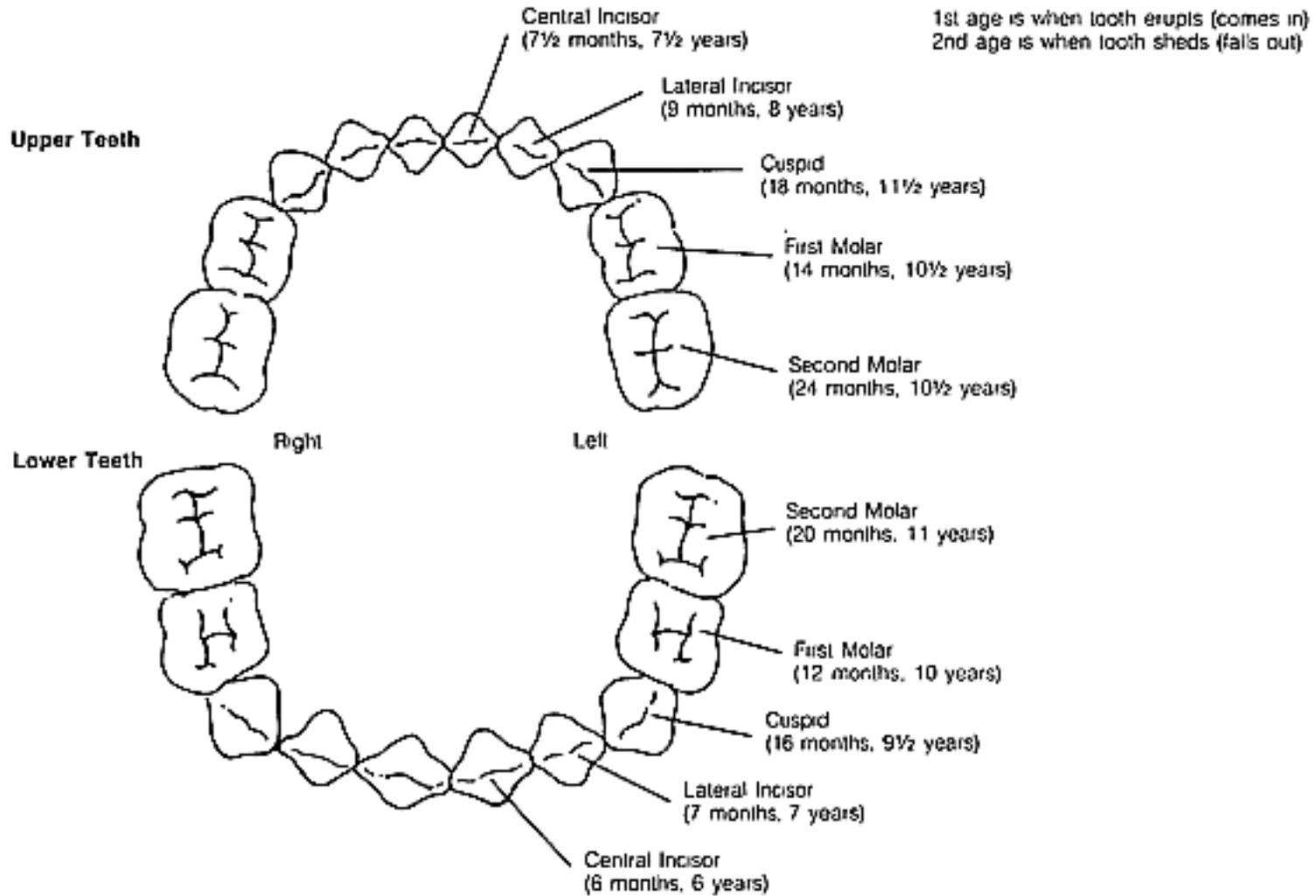


LOCATION OF TEETH AT 6 YEARS OF AGE



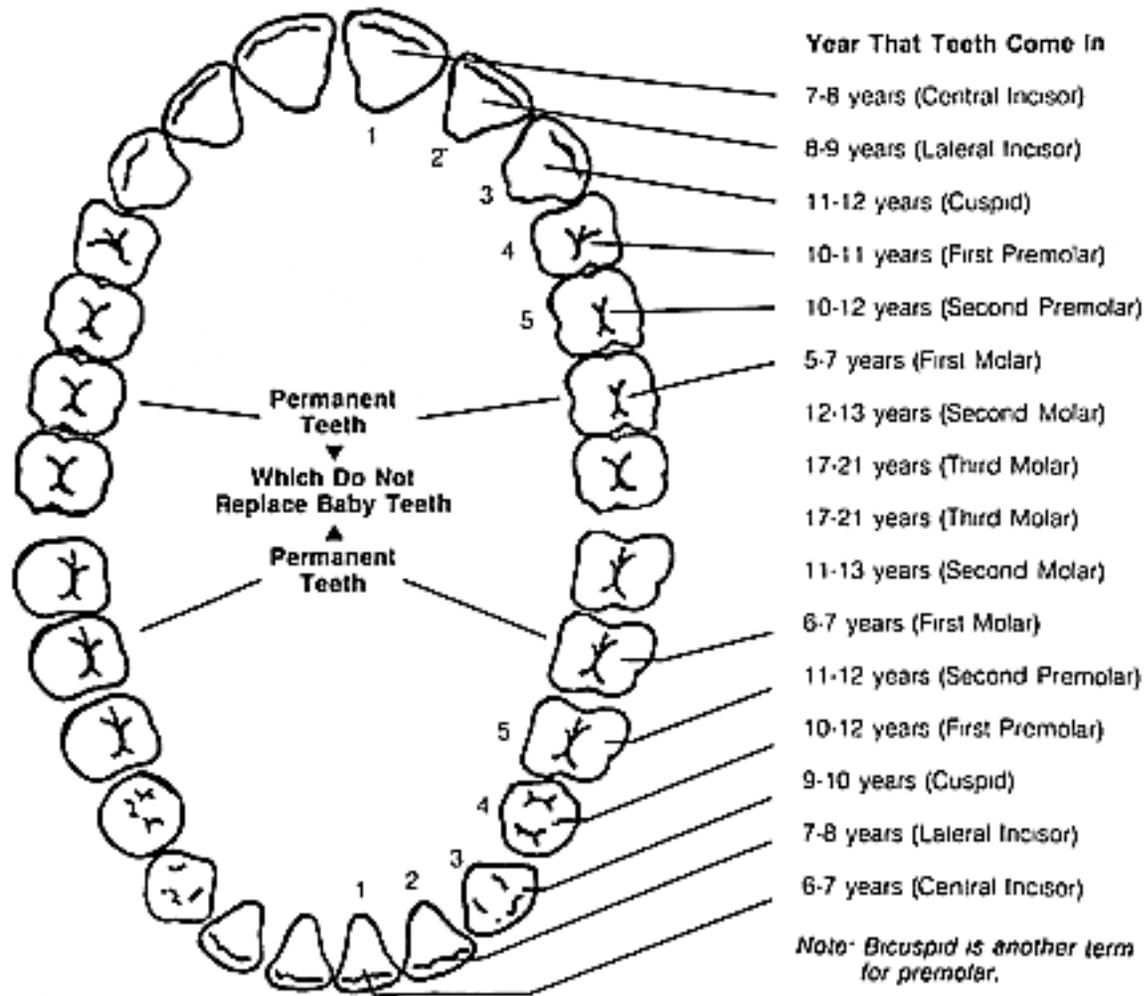
AGE SCHEDULE FOR PRIMARY TEETH

PRIMARY (BABY) TEETH



AGE SCHEDULE FOR PERMANENT TEETH

(Teeth numbered 1 to 5 replace baby teeth)



DENTALLY SAFE FOOD

and

DENTALLY UNSAFE FOOD



- unsweetened fruit juice
- unsweetened vegetable juice
- raw vegetables and salads
- raw fruits
- nuts, seeds
- cheese
- plain milk
- plain yogurt
- enriched, whole wheat bread
and bannock
- whole grain cereals
- crackers
- bran muffin
- pizza
- popcorn
- meats



- raisins, dried fruits
- ice cream, milkshakes
- sweetened juice and canned fruits
- flavoured yogurt
- chocolate milk
- puddings
- popsicles/fudgsicles/revelos
- sugar lumps
- cake
- candy
- jam
- chocolate bars
- cookies
- jelly, jam, honey
- soft drinks (sweetened)
- fruit drinks
- sweetened powdered drink mixes
- gum
- lozenges

*** Teeth should always be brushed after eating sticky food.**

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 45° angle toward the gum line. This ensures that the bristles cover both teeth and gum surfaces

Vibrate the brush in 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.

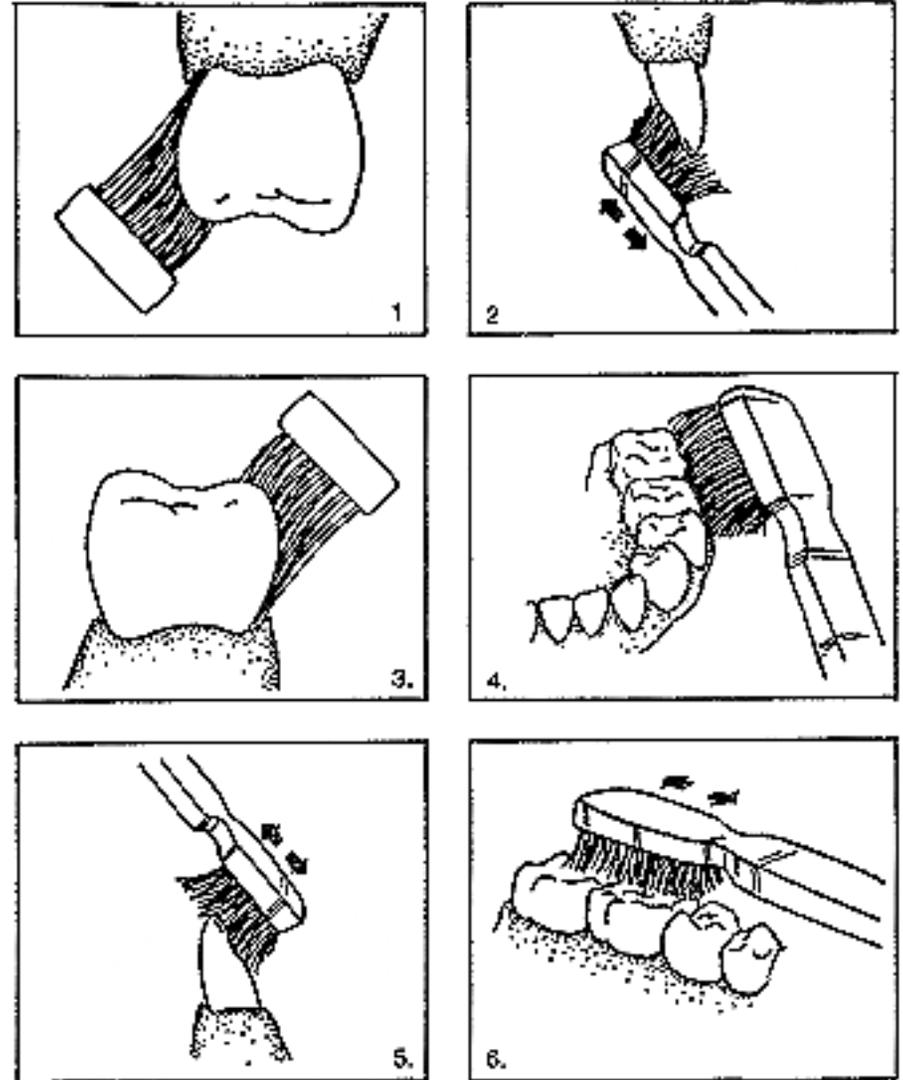
All inside and outside surfaces of teeth are cleaned in this way. The top surfaces of the back teeth are cleaned with a back and forth motion the bristles directly on top of the teeth.

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

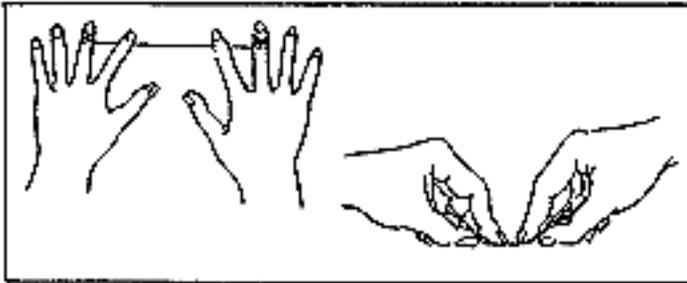
Flossing - Removal of Plaque

How to Floss

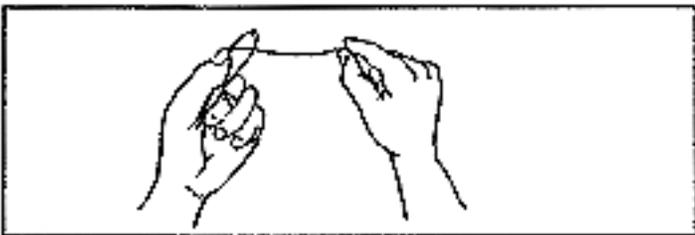
Flossing disrupts and removes plaque between the teeth and under the edges of the gums

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

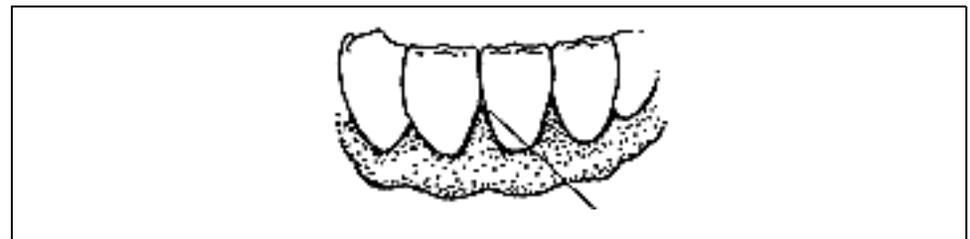
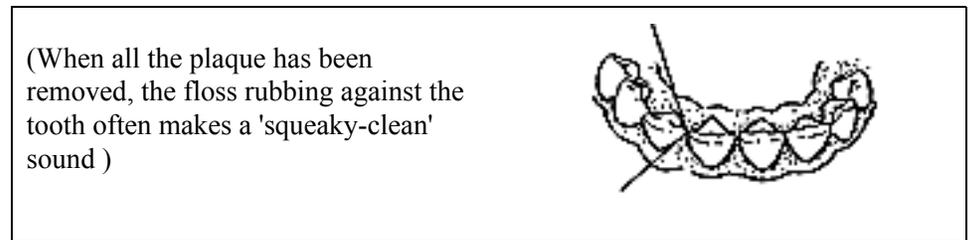
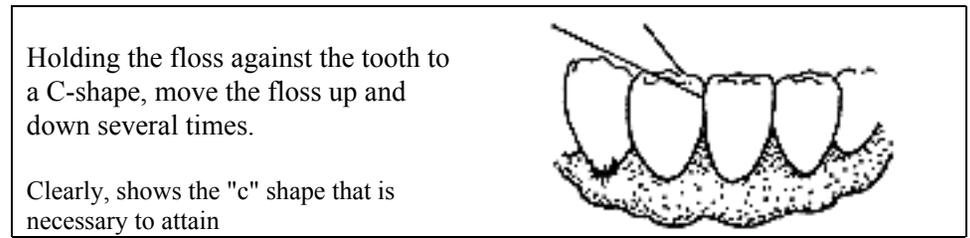
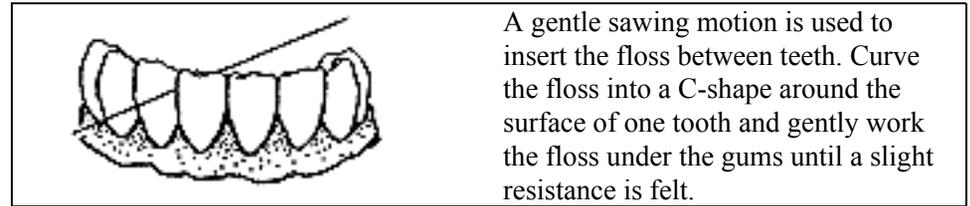
The free part of the floss is grasped with the thumbs and 1st fingers of each hand leaving about 2.5 cm as the 'working portion' of the floss



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.

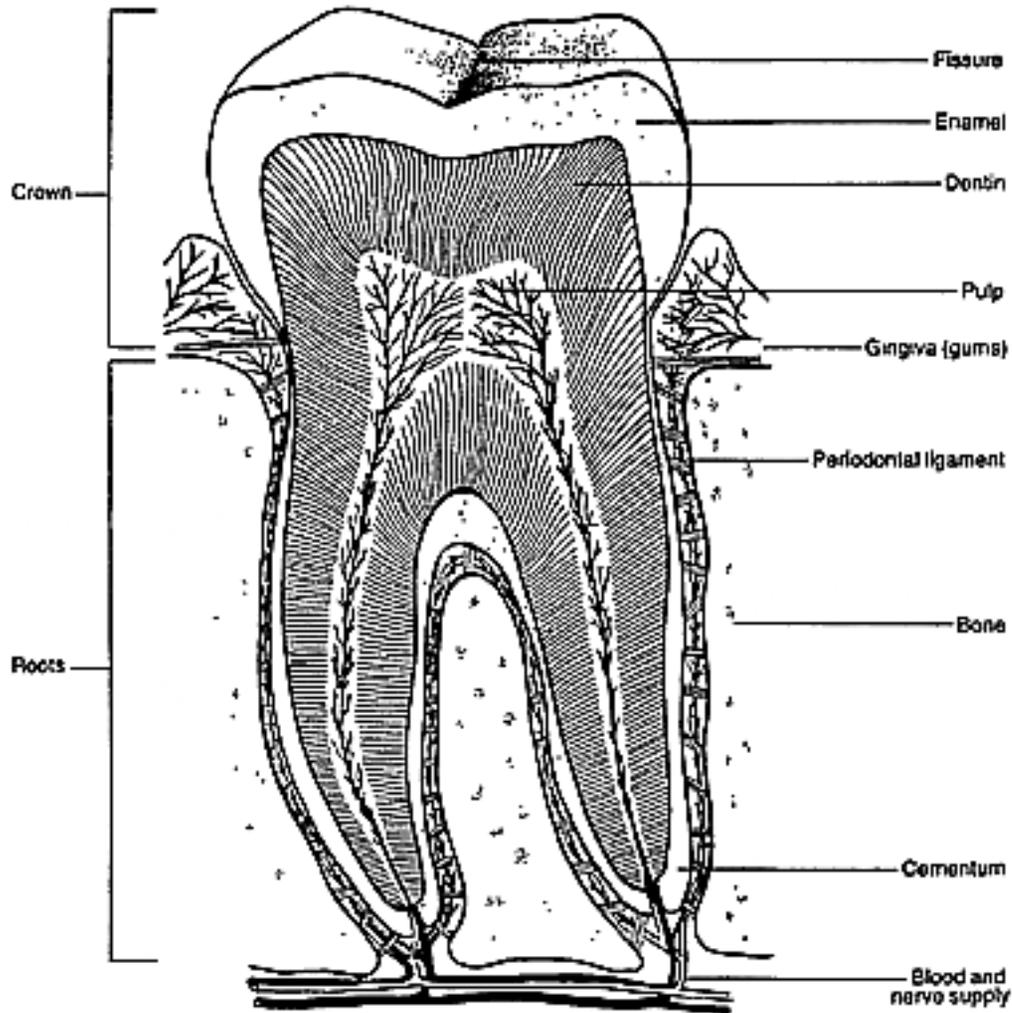


Repeat the procedure on the adjacent tooth surface at the same site.

This method is repeated on the remaining teeth starting on the upper right teeth and ending on the lower left teeth.

From CDA, "Do It 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.

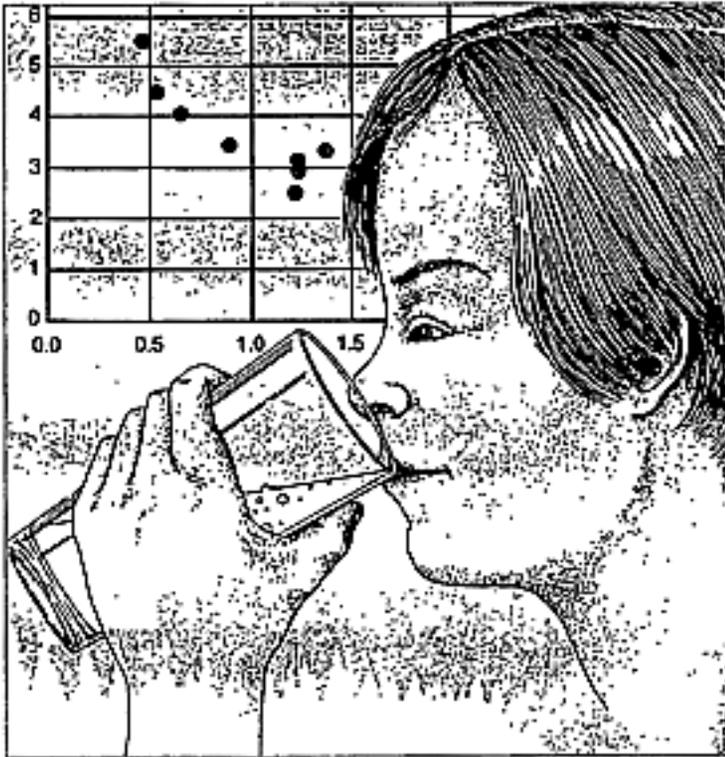
Jawbone: the bone surrounding and supporting the roots of the teeth

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 12 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, Inuvik, 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 in 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

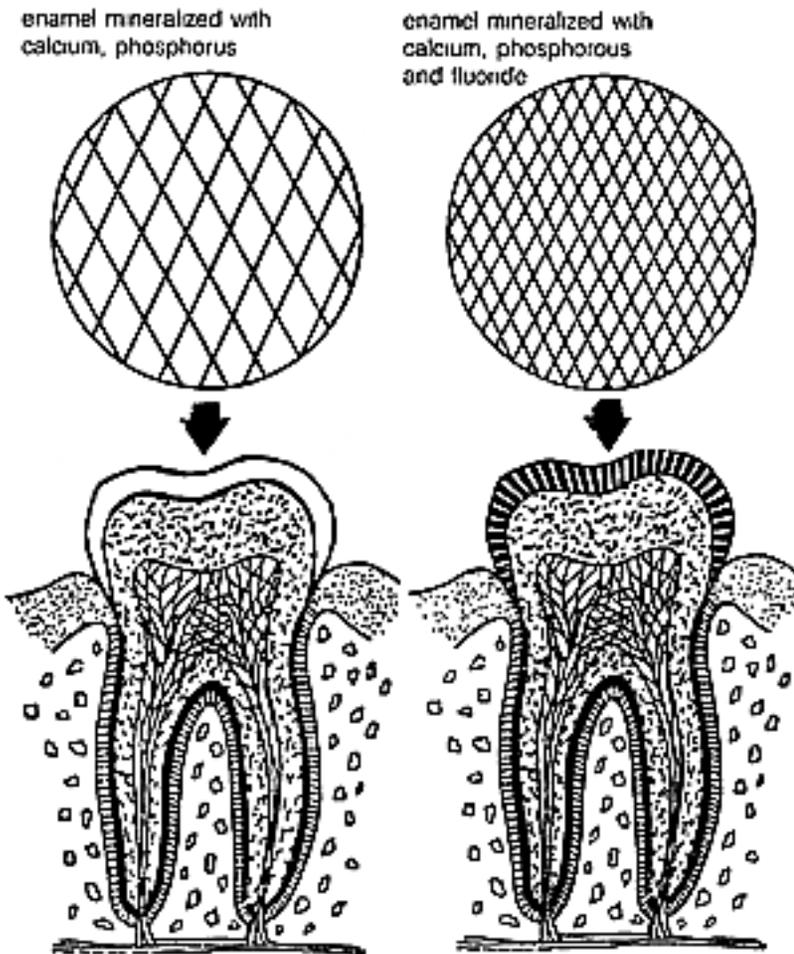
Fluorides in the form of water fluoridation, a good diet with sugar consumption kept to a minimum, especially for between-meal snacks, brushing and flossing thoroughly each day and brushing after meals if possible (fluoride toothpaste) will prevent most dental decay and gum disease. These four preventive 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

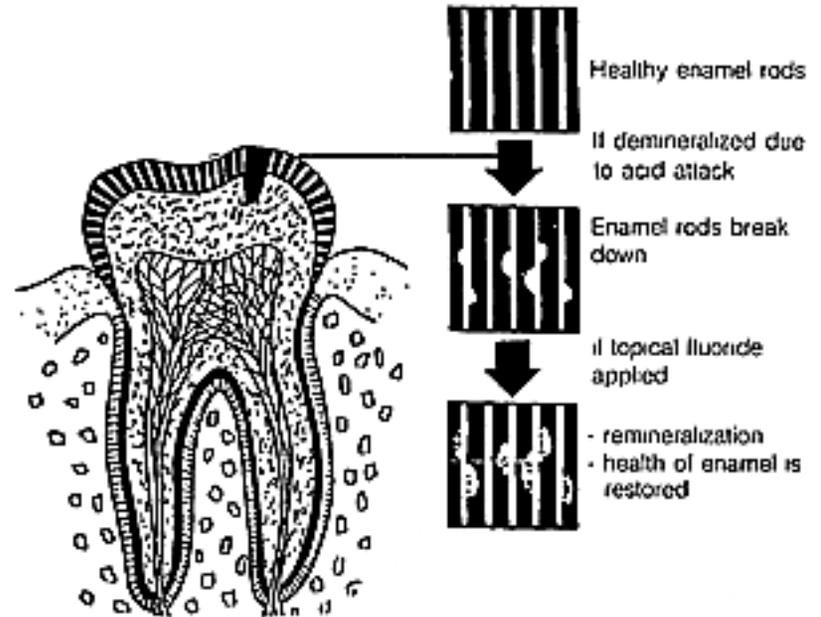
Systemic Fluoride

- 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

Stimulents

- 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 in 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	<ul style="list-style-type: none"> - 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 	<ul style="list-style-type: none"> - improper brushing and flossing - lack of brushing and flossing - frequent eating of sweet sticky foods - dental neglect 	<p style="text-align: center;">plaque + sugar = acid tooth = tooth decay</p>	<ul style="list-style-type: none"> - drilling to remove disease - filling - crowns - root canal 	<ul style="list-style-type: none"> - fluorides - proper daily brushing and flossing - plaque control - careful selection of foods - sealants - health education - regular dental check-ups
gum disease -gingivitis, periodontitis	<ul style="list-style-type: none"> - soft, swollen, tender gums when brushed or flossed - loose permanent teeth - persistent bad breath or taste in mouth - a feeling of pressure between teeth after eating - gums shrink from teeth 	<ul style="list-style-type: none"> - bacteria in plaque irritates gums - plaque hardens and irritates gums - infection 	<ul style="list-style-type: none"> - bleeding gums - pockets of pus between gums and tooth - gums, ligaments, bones that support tooth are damaged - teeth loosen and fall out 	<ul style="list-style-type: none"> - removal of plaque and calculus - treatment of infection - Surgical removal of tooth 	<ul style="list-style-type: none"> - plaque control - proper daily brushing and flossing - health education - regular dental checkups
orthodontal	<ul style="list-style-type: none"> - crooked or poorly aligned permanent teeth - grinding of teeth - improper spacing of teeth 	<ul style="list-style-type: none"> - premature loss of primary teeth - late loss of primary teeth - thumb sucking beyond 5 years 	<ul style="list-style-type: none"> - plaque control problems - appearance problems - biting, chewing, speaking problems - grinding of teeth 	<ul style="list-style-type: none"> - space maintainers - exercises or appliances to move teeth to correct locations - prevention of thumb sucking 	<ul style="list-style-type: none"> - regular dental check-ups - health education

Problem	Signals	Causes	Consequences	Treatment	Prevention
		<ul style="list-style-type: none"> - teeth too large or too small for jaw - cleft palate 	<ul style="list-style-type: none"> - uneven wear of teeth - periodontal disease 	<ul style="list-style-type: none"> - prevention of grinding of teeth 	
nursing bottle mouth	<ul style="list-style-type: none"> - new teeth are decayed 	<ul style="list-style-type: none"> - 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. 	<ul style="list-style-type: none"> - bacteria + sugar = acid - acid + tooth = decay 	<ul style="list-style-type: none"> - fillings - tooth removal - caps 	<ul style="list-style-type: none"> - 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.