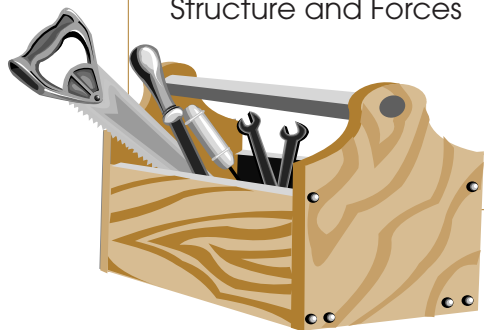


Grade 4 to 6 Career Awareness Resource

Activity Cards For Learning Centres

Grade 4	Grade 5	Grade 6
Light and Sound	Properties and Changes of Matter	Electricity
Rocks and Minerals	Forces and Simple Machines	Flight and Space
Structure and Forces	Meeting Basic Needs and Maintaining a Healthy Body (Health Services Related)	Diversity of Living Things (Resources, Wildlife and Economic Development Related)



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INTRODUCTION

Grade 4 to 6 Career Awareness Resource

Everyone would agree that schools have always been involved in the work of preparing children and youth for the choices that lie around and ahead of them. Because the world of work has been changing rapidly in recent years, we have become more conscious of the need for a focus on “career development” so that our students will be prepared for the reality that awaits them.

Although this resource does help students to explore options within the work world, it is important to remember that “career” is more than the world of work: it’s also about the way one will spend one’s leisure time, volunteer time, and family time. It’s about becoming aware of preferences, defining goals, creating a map to one’s “preferred future”. It’s about life balance and the rewards that come from sharing one’s unique gifts and abilities.

The *Blueprint of Life/Work Designs* has been adopted as the NWT’s expression of Career Development outcomes for our schooling system. It has three general learning outcomes:

- Personal Management,
- Learning and Work Exploration, and
- Life/Work Building.

Each of these general learning outcomes has competency areas and indicators to describe learning goals in greater depth. Some of these goals are more easily addressed in school contexts than others. Much as it might be desirable, it would be difficult to arrange for student field trips into work sites on a regular basis. Also, some sectors of work are not represented in all communities.

Through the Grade 4 to 6 Career Awareness Resource, students can see that the skills that they learn within their school programs are transferable and that these skills are important to the growth and economic health of the NWT. They will also be exposed to a wide range of northern career sectors and occupations within those sectors. They will learn that people enjoy their work for a variety of reasons. The goal of this exposure is not to have students aim their sites at a specific job. It is to acquaint them with the variety of potential careers in the north and to help them make a connection between the skills they learn in school and some of the work options that are available to people who have “honed” these skills.

It is our hope that this resource will be helpful to educators and offer an example of how career development can be effectively integrated into the elementary classroom.

We extend sincere thanks to those that have given their time to be interviewed, photographed, and to share information about their chosen work. We’re grateful to the Departments of Health and Social Services and Resources, Wildlife and Economic Development for funding support. And finally, our thanks to our contractor, Don Kindt, who capably researched and designed the wonderful product that you see before you.

HOW

How To Use This Document

This document contains nine reproducible activity centres. Each centre takes an interdisciplinary approach to exploring the world of careers at the grade four to six levels.

Major themes for the centres have been developed to coincide with themes in the Pan Canada Science Curriculum.

Each theme comes with everything you will need to set up an attractive and stimulating activity centre. Each theme contains approximately 20 pages with pages 2, 3, and 4 written specifically for the teacher.

Page	Description
1	Attractive title page to display in your activity centre.
2, 3	General notes for the teacher – overview of theme, curriculum links, list of materials, internet links, and answers/responses to activities (where applicable).
4	Teacher progress chart – class list format with names of activities across the top of the page.
5, 6	Student progress and information sheets – left hand side shows actual pages from activities; middle pages identify outcomes written at students' level; right hand side has space for student to write down the date completed.
7, 8, 9, 10, 11	Hands-on activities related to any of the following areas: Pan Canada Science Western Canada Math Curriculum Western Canada Language Arts NWT Health Curriculum Information Technology Arts and Crafts, Music and/or Home Economics Each activity includes a "Some Things To Try" section with extension ideas .
12, 13	Two puzzle type activities or additional activities.
14 and onward	Four to six photos of people at work in various careers related to the theme and activities.

Teachers can use the ready to go activities from this resource package or they can print off activities from the pdf file provided on the CD Rom which accompanies this package.

GRADE 4

Overview of Grade 4 Activity Cards

Centre 1 Light and Sound	Centre 2 Rocks and Minerals	Centre 3 Structure and Forces
1.1 Light and Sound Title Page	2.1 Rocks and Minerals Title Page	3.1 Structure and Forces Title Page
1.2 Teacher Notes	2.2 Teacher Notes	3.2 Teacher Notes
1.3 Teacher Notes	2.3 Teacher Notes	3.3 Teacher Notes
1.4 Class Progress Chart	2.4 Class Progress Chart	3.4 Class Progress Chart
1.5 Student Progress Sheets	2.5 Student Progress Sheets	3.5 Student Progress Sheets
1.6 Student Progress Sheets	2.6 Student Progress Sheets	3.6 Student Progress Sheets
1.7 Recycled Music Activity	2.7 Who is Mohs Activity	3.7 How High Activity
1.8 Say Cheese Please Activity	2.8 Making Rock Candy Activity	3.8 What's My Number Activity
1.9 Mira, Mira on the Wall Activity	2.9 Crystal Forms Activity	3.9 Build A Story Activity
1.10 Mira, Mira Activity Continued	2.10 Galena Template	3.10 Constructions Activity
1.11 Mirror Mania	2.11 Diamond Template	3.11 Step On It Activity
1.12 Remember the Rainbow Activity	2.12 What Good Am I Activity	3.12 Go To Your Room Activity
1.13 Did You Hear That Noise Activity	2.13 When I Was Young Activity	3.13 Opposing Forces Activity
1.14 Light and Colour Riddle	2.14 A Piece of the Pie Activity	3.14 Structure and Forces Word Find Puzzle Activity
1.15 Sound Crossword Puzzle	2.15 Rocks and Minerals Puzzle Activity	3.15 Photos (Carpenters)
1.16 Photos (Glazier)	2.16 Photos (Welder)	3.16 Photos (Cabinetmaker)
1.17 Photos (Diamond Polishers)	2.17 Photos (Welder)	3.17 Photo (Plumber)
1.18 Photos (Diamond Polishers, Painter and Decorator)	2.18 Photos (Machinist, Tiler)	3.18 Photo (Millwright)
1.19 Photo (Autobody Colour Technician)	2.19 Photos (Welder)	3.19 Photos (Sprinkler System Installers)
1.20 Photo (Housing Maintainer, Electrical Engineer Technologist)	2.20 Photo (Diamond Polisher and Kimberlite with Quartz and Diamond)	3.20 Photos (Welders)

GRADE 5

Overview of Grade 5 Activity Cards

Centre 4 Property and Changes of Materials		Centre 5 Force and Simple Machines		Centre 6 Meeting Basic Needs and Maintaining a Healthy Body (Health Services Related)	
4.1	Properties and Changes of Materials Title Page	5.1	Force and Simple Machines Title Page	6.1	Meeting Basic Needs and Maintaining a Healthy Body (Health Services Related) Title Page
4.2	Teacher Notes	5.2	Teacher Notes	6.2	Teacher Notes
4.3	Teacher Notes	5.3	Teacher Notes	6.3	Teacher Notes
4.4	Class Progress Chart	5.4	Class Progress Chart	6.4	Class Progress Chart
4.5	Student Progress Sheets	5.5	Student Progress Sheets	6.5	Student Progress Sheets
4.6	Student Progress Sheets	5.6	Student Progress Sheets	6.6	Student Progress Sheets
4.7	Follow the Bouncing Ball Activity	5.7	Ramp and Roll Activity	6.7	Racing Pulses Activity
4.8	The Superhero Activity	5.8	Ramp and Roll Worksheet	6.8	What's In That Lunch Activity
4.9	Superhero Worksheets	5.9	Come Back To Me Activity	6.9	Stressed Out – Who Me? Activity
4.10	Marshmallow Supersized Activity	5.10	My Spring Has Sprung Activity	6.10	Graph Paper
4.11	You Are What You Eat Activity	5.11	Pop Bottle Catapult Activity	6.11	Vitamin C Activity
4.12	How Many Servings Activity	5.12	Match the Equipment Activity	6.12	Multi-vitamins Activity
4.13	Can We Order Out Today Activity	5.13	CD Racer Activity	6.13	Helping Hands Cookies Activity
4.14	Eating Out Record Sheets	5.14	Photos (Millwright, Partsperson, Hairstylist, Printing and Graphic Arts)	6.14	Bannock Variations (Class Project) Activity
4.15	Sample Menu	5.15	Photos (Millwright)	6.15	Photo (Nurse)
4.16	Sample Menu	5.16	Photos (Sprinkler System Installer)	6.16	Photo (Chemist)
4.17	Properties and Changes of Materials Word Find	5.17	Photos (Autobody Colour Technician, Automotive Service Technician)	6.17	Photos (Counsellors)
4.18	Photo (Baker)	5.18	Photos (HDEM)	6.18	Photo (Nutritionist)
4.19	Photos (Chef/Cook)	5.19	Photos (HDEM)	6.19	Photo (Doctor)
4.20	Photos (Cook)	5.20	Photos (Gasfitter, Oil Burner Mechanic)	6.20	Photo (Pharmacist)
4.21	Photos (Welder)				

GRADE 6

Overview of Grade 6 Activity Cards

Centre 7 Electricity	Centre 8 Flight and Space	Centre 9 Diversity of Living Things (RWED Related)
7.1 Electricity Title Page	8.1 Flight and Space Title Page	9.1 Diversity of Living Things (RWED Related) Title Page
7.2 Teacher Notes	8.2 Teacher Notes	9.2 Teacher Notes
7.3 Teacher Notes	8.3 Teacher Notes	9.3 Teacher Notes
7.4 Class Progress Chart	8.4 Class Progress Chart	9.4 Class Progress Chart
7.5 Students Progress Sheets	8.5 Student Progress Sheets	9.5 Student Progress Sheets
7.6 Student Progress Sheets	8.6 Student Progress Sheets	9.6 Student Progress Sheets
7.7 What Do You See Activity	8.7 Look Out Below Activity	9.7 The Bear Facts Activity
7.8 If At First You Don't Succeed Activity	8.8 The Flying Straw Activity	9.8 Compare and Contrast Sheet
7.9 Yes and No Activity	8.9 Hovercraft Activity	9.9 It's for the Birds Activity
7.10 Electrical Shorthand Activity	8.10 More Flying Straws Activity	9.10 It's for the Birds Information Sheet
7.11 Conductors or Not Activity	8.11 Mapping The Stars Activity	9.11 Modern Day Fossils Activity
7.12 Making Connections Activity	8.12 Mapping The Stars Graph Paper	9.12 Life Cycle Activity
7.13 Logical Connections Activity	8.13 Has Anyone Seen My Luggage Activity	9.13 Life Cycle Diagram
7.14 Where Were You When Activity	8.14 The Big Picture Activity	9.14 Animal Tracks Activity
7.15 Photos (Electrician)	8.15 Photos (Airport Manager)	9.15 Animal Tracks Information Sheet
7.16 Photos (Partsperson)	8.16 Photos (AME – Planes)	9.16 Follow That "Collar" Activity
7.17 Photos (Electrician)	8.17 Photos (Flight Attendants)	9.17 Follow That "Collar" Information Sheet
7.18 Photos (Refrigeration and Air Conditioning Mechanic)	8.18 Photos (AME – Helicopters)	9.18 Photos (Biologists and Wildlife Technician)
7.19 Photos (Power Linesman)	8.19 Photos (Customer Service Agent, Cargo Services Coordinator)	9.19 Photos (Trapper)
7.20 Photo (Electrician, Electrical Engineering Technologist)	8.20 Photos (Cargo Agent, Pilot)	9.20 Photos (Renewable Resources Officer)

LINKS

Internet Links for Different Centres

Light and Sound

www.exploratorium.edu/snacks

(California Department of Education site – tons of simple experiments, many of them focusing on light related topics.)

school.aol.com

(Follow links to elementary or middle school; choose subjects; choose science; select science category called physical science.)

Rocks and Minerals

volcano.und.nodak.edu

(Volcano World – follow links to Kid’s Door.)

volcano.und.nodak.edu/vwdocs/vwlessons/lessons/Slideshow/Slideindex.html

(Three rock types)

school.aol.com

(Follow links to elementary or middle school; choose subjects; choose science; select science category called earth and environment.)

www.miningnorth.com

(NWT Chamber of Mines site)

Structure and Forces

www.pbs.org/wgbh/buildingbig

(bridges, domes, skyscrapers, dams, tunnels)

Properties and Changes of Matter

www.chem4kids.com

(Follow links to matter.)

Use Google search engine and follow kids and teen’s link to science.

Forces and Simple Machines

school.aol.com

(Follow links to elementary or middle school; choose subjects; choose science; select science category called physical science.)

www.howstuffworks.com

Meeting Basic Needs and Maintaining a Healthy Body (Health Related Careers)

www.nutritionexplorations.org

(Follow links to kid’s zone.)

Use Google search engine and follow kids and teen’s links to health and nutrition.

Electrical

northlandutilities.nt.ca

Site contains three energy programs for grades 4 to 6: Power Source (on electricity production); Be Power Safe (on electrical safety); and Be Energy Smart and Save (on energy conservation). Geared for teachers but suitable for students to research as well.

school.aol.com

(Follow links to elementary or middle school; choose subjects; choose science; select science category called physical science.)

Flight and Space

www.nasa.gov, spacescience.com, spaceweather.com and school.aol.com

(Follow links to elementary or middle school; choose subjects; choose science; select science category called space and astronomy.)

Diversity of Living Things

(RWED Related)

www.rwed.gov.nt.ca

(RWED – access to kid’s zone.)

www.nwtwildlife.rwed.gov.nt.ca/nwtwildlife/nwtwildlife.htm

(Wildlife information)

www.normanwells.com/fossilhunt/main.htm

(Norman Wells Great Fossil Hunt)

CORRELATION

Correlation of Careers Identified with Grade 4 to 6 Activity Learning Centres

Grade 4	Grade 5	Grade 6
<p>Light and Sound</p> <p>Glazier Painter and Decorator Diamond Polisher Sprinkler System Installer Autobody Colour Technician Housing Maintainer Plumber Musicians Photography Related Careers Audiologist</p>	<p>Properties and Changes of Materials</p> <p>Cook/Chef Baker Cook's Helper Food Caterer Graphic Arts and Design Writer/Author Illustrator</p>	<p>Electricity (Electrical Related Careers)</p> <p>Electrician Appliance Service Technician Electrical Rewind Mechanic Refrigeration and Air Conditioning Mechanic</p>
<p>Rocks and Minerals</p> <p>Miner, Driller, Blaster Machinist Welder Millwright Diamond Polisher Geologist Jeweler Scientist Prospector Chef (Also, careers linked to 15 different rocks and minerals)</p>	<p>Forces and Simple Machines</p> <p>Crane and Hoisting Equipment Operator (Mobile) Crane and Hoisting Equipment Operator (Boom) Elevator Service Technician Heavy Duty Equipment Mechanic Automotive Service Technician Oil Burner Mechanic Machinist Partsperson Hairstylist Mover</p>	<p>Flight and Space</p> <p>Scientist Engineer Computer Technician Aircraft Maintenance Engineer Air Traffic Controller Flight Attendant Pilot Airport Manager Ticket Agent Baggage Handler Air Freight Services Firefighter</p>
<p>Structure and Forces (Construction Related Careers)</p> <p>Carpenter Cabinetmaker Painter and Decorator Glazier Sheet Metal Worker Welder Insulator Drywall Tilesetter Housing Maintainer Roofer Plumber Architect Appliance Service Technician Engineer</p>	<p>Meeting Basic Needs and Maintaining a Healthy Body (Health and Social Services Related Careers)</p> <p>Doctor Nurse Nursing Assistant Nutritionist/Dietician Social Worker Counsellor Dentist Dental Hygienist Chemist Lab Technician Pharmacist Occupational Therapist Physiotherapist</p>	<p>Diversity of Living Things (Renewable Resources Related Careers)</p> <p>Biologist Carnivore/Fur Biologist Trapper Resource Development Officer Geologist Paleontologist Wildlife Technician Wildlife Officer Wildlife Veterinarian</p>

SET-UP

Setting Up Your Learning Centre

A learning centre can be as simple as a bulletin board with a table in front of it for students to work on or as elaborate as a three sided display similar to displays students often use for science fairs with a table for students to do their activities.

Before you start:

1. Look over the 20 pages that make up each learning centre – some of the pages are for teacher use and some are for student use.
2. Position the title page indicating the theme for the centre in the most prominent location.
3. Arrange the photos so that they catch the student's attention.
4. Most of the activities can be done in any order but one or two of them may be sequential. The best way to know is to read the short overview on page 2 of every centre.
5. Some activity sheets require photocopying because the students will work right on them. Others can simply be posted for the students to view and read as they do their activity.
6. A good technique for keeping track of handouts and activity worksheets is to put them in large brown envelopes with a copy of the worksheet on the front of the envelope. The envelopes can be stapled or pinned to the wall or display and students can help themselves to the copies as they need them.
7. Another good idea is to put the class progress chart on a striking background such as bright yellow paper. This will draw the students attention to this page and they can check off the activities they have completed.
8. Some of the activities let students create things that they can leave behind for other students to solve or work on. For this reason, having your centre near a small bulletin board or available wall space is a good idea. Some teachers create a clothes line with clothes pins for students to hang their work or sheets they have prepared for others to try.



REFLECTING

Reflecting on Learning and Prompting Questions

Students should be given the opportunity to reflect on their learning after each module. Information is provided to allow the teacher to generate templates that suite the occasion as well as the learner. Just take a few of the prompting questions and space them out on a page with a suitable graphic. For example, after completing a unit or activity centre on Light and Sound, place three or four of the following questions on the same page as a graphic of a rainbow or a graphic associated with the centre. Check boxes have been included to help you keep track of which ones you have already used.

Keeping with the interdisciplinary nature of these centres, this activity could be part of your Language Arts class for that day.

Reflecting On My Learning

- This piece of work shows...
- The best part is...
- If I did it again, I would...
- It was hard for me to learn...
- I was encouraged...
- I used to think _____ but now I think...
- I was surprised to learn...
- I was puzzled...
- I never thought...
- I want to explore further about...
- I now understand...
- A question I am curious about and want to find the answer to is...
- Three things I wonder about are...
- The part I struggled with is...
- The part I like best is...
- The part I like least is...
- I am having trouble with...
- Something I'd change is...
- I wish I knew more about...
- I found it easy to...
- Next time I would...
- Three things I've learned...
- Two ideas I would like to pursue further...
- One action I will take immediately...
- Learning is more fun for me if I have a chance to...
- One thing I learned about myself as
- I worked at this centre is...

REFLECTING ON MY LEARNING

