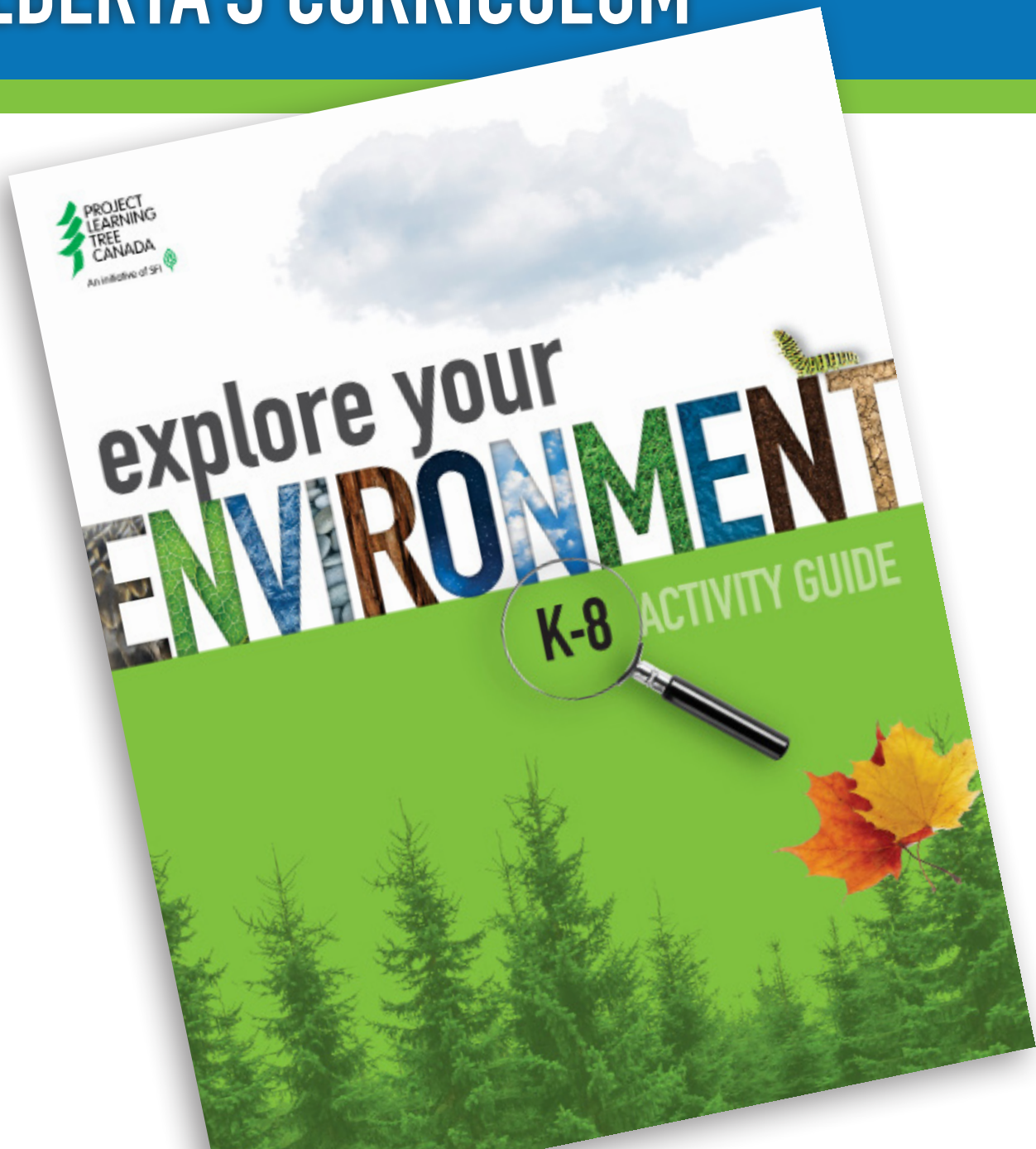


# CONNECTING ACTIVITIES FROM EXPLORE YOUR ENVIRONMENT K-8 ACTIVITY GUIDE TO ALBERTA'S CURRICULUM



# TABLE OF CONTENTS

## INTRODUCTION

Using this Toolkit .....1

Keep in Mind .....1

Professional Network .....2

## GRADES K-2 CONTENT CONNECTIONS

Language.....3

Social Studies.....3

Mathematics.....4

Science and Technology.....4

## GRADES 3-5 CONTENT CONNECTIONS

Visual Arts .....6

Language.....6

Social Studies.....7

Science and Technology.....7

## GRADES 6-8 CONTENT CONNECTIONS

Language.....9

Career and Technology Foundations — Environmental Stewardship .....7

Career and Technology Foundations — Forestry..... 12

Science ..... 14

Mathematics ..... 16



# INTRODUCTION

Project Learning Tree Canada is committed to supporting educators in providing instruction that helps students meet Alberta's curriculum. Activities in the *Explore Your Environment* Activity Guide involve exploring the real world through learner-centred, multidisciplinary investigations that promote inquiry and problem solving. They provide students opportunities to practise skills, and make personal connections to the curriculum as they investigate their environment and communicate about it.

The following chart allows you to easily find corresponding *Explore Your Environment* activities that address curricular competencies in Alberta's curriculum. See <https://www.alberta.ca/k-12-curriculum-programs-of-study> to access Alberta's complete curriculum documents.

The chart also includes activity connections to “transferable skills,” which are the skills and attributes that students need in order to thrive in the modern world. PLT Canada is using seven important categories of transferable skills, or “competencies”, that will help students navigate the world of work and meet with success in the future:

- critical thinking and problem solving
- innovation, creativity, and entrepreneurship
- self-directed learning
- collaboration
- communication
- global citizenship and sustainability
- digital literacy

## USING THIS TOOLKIT

To help you identify PLT Canada activities that meet Alberta's curriculum, the chart contains the following symbols:

- A solid square (■) means the Doing the Activity section has a strong connection to an overall expectation.
- A hollow square (□) means that the Doing the Activity section of an activity supports the overall expectation.
- In the Transferable Skills section, a checkmark (✓) means the Doing the Activity section has a strong connection to the skill.
- An “E” means that the activity's Enrichment supports the overall expectation/ transferable skill.
- Note: An activity may correlate to the curriculum in the Doing the Activity section, the Enrichment section, or in both sections.

## KEEP IN MIND

The curriculum connections are based on *Explore Your Environment's* activities as written. They do not take into account the myriad ways educators can modify or adapt activities to address a curriculum expectation more directly or completely.

As you work through the curriculum connections, remember: if the content of the curriculum is referred to in the activity's background information, but not incorporated in the Doing the Activity or Enrichment sections, it is not included as a connection.

# INTRODUCTION CONTINUED

## PROFESSIONAL NETWORK

PLT Canada provides educators with hands-on professional development and customised assistance to integrate environmental education into their curriculum. The link below provides contact information for PLT Canada. Please consider this an invitation to reach out and get involved today!

### CONTACT PLT CANADA FOR:

- Local resources and assistance
- Ideas for incorporating environmental education and outdoor learning into your program
- Connections to mentor teachers, community members, and natural resource professionals
- Information about in-person professional development events near you
- Becoming a PLT Canada professional development facilitator

### EXPERIENCE PLT CANADA'S PROFESSIONAL DEVELOPMENT TO:

- Gain new teaching skills, deepen your content knowledge, and become comfortable teaching outdoors
- Receive instructional materials tailored to your province or territory's standards
- Experience PLT Canada activities, develop an action plan, and get lesson planning tips specific to your setting
- Get access to a network of professionals and support

## GET CONNECTED TODAY

<https://pltcanada.org/en/about-us/contact/>



### OVERALL EXPECTATIONS:

#### LANGUAGE

##### KINDERGARTEN

Children explore listening and speaking skills through a variety of literacy experiences.

■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■

Children demonstrate understandings of messages communicated in texts.

■ ■ □ ■ ■ ■ ■ ■ ■ ■ □ ■ ■ ■

Children experiment with written expression of ideas and information.

■,E ■ ■ ■ ■ ■ ■ ■ ■ ■,E ■ ■ ■ ■

##### GRADE 1

Students develop listening and speaking skills through sharing stories and information.

■ ■ ■ ■,E ■ ■ ■ ■ ■ ■ ■,E ■ ■ ■

Students create messages through the application of writing processes.

■,E ■ ■ ■ ■ ■,E ■ ■ ■,E ■ ■ ■,E ■ ■

Students investigate meaning communicated in texts.

■,E ■ ■ □ ■,E ■ ■ ■,E ■ ■ ■ ■ ■ ■ ■

##### GRADE 2

Students examine and adjust listening and speaking to communicate effectively.

□ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■

Students examine and apply a variety of processes to comprehend texts.

■ ■ ■ □ ■ ■ ■,E ■ ■ ■ ■ ■ ■ ■ ■ ■

Students create and enhance ideas and information by applying a variety of writing processes.

■,E ■ ■ ■ ■ ■,E ■ ■ ■ ■ ■,E ■ ■ ■,E ■ ■

#### SOCIAL STUDIES

##### KINDERGARTEN

Children explore needs and wants.

■ ■ ■ □ □ □ ■ ■ ■ ■ ■ ■ ■ ■ ■

##### GRADE 2

Students explore ways trade supports local communities.

■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■,E

Key: A hollow square (□) means the activity correlates to the standard. A solid square (■) means it has a strong correlation. In the Transferable Skills section, a checkmark (✓) means the Doing the Activity section has a strong connection to the skill. An "E" means that the activity's Enrichment correlates to the standard.

### OVERALL EXPECTATIONS:

#### MATHEMATICS

##### KINDERGARTEN

Children interpret compositions of quantities within 10.

Children investigate shape.

Children explore size through direct comparison.

Children interpret time as a sequence of events.

##### GRADE 1

Students interpret and explain quantity to 100.

Students interpret shape in two and three dimensions.

Students examine patterns in cycles.

Students investigate and represent data.

##### GRADE 2

Students communicate length using units.

Students explain and analyze patterns in a variety of contexts.

Students relate duration to time.

Students relate data to a variety of representations.

#### SCIENCE AND TECHNOLOGY

##### KINDERGARTEN

Children examine properties of objects.

Children explore movement of objects, humans, and other animals.

	A TREE'S LIFE	ADOPT A TREE	BACKYARD NATURALIST	BIRDS AND BUGS	BURSTING BUDS	DID YOU NOTICE?	HAVE SEEDS, WILL TRAVEL	HERE WE GROW AGAIN	MAKE YOUR OWN PAPER	PEPPERMINT BEETLE	THE CLOSER YOU LOOK	TREES AS HABITATS	WE ALL NEED TREES
Children interpret compositions of quantities within 10.			■				■						
Children investigate shape.				■	■		■				■, E		
Children explore size through direct comparison.	■				■		■	■					
Children interpret time as a sequence of events.	■				■	■		■, E					
Students interpret and explain quantity to 100.				■									
Students interpret shape in two and three dimensions.							■				□		
Students examine patterns in cycles.	■				■	■, E						■, E	
Students investigate and represent data.	■			■	■, E		■	■		■		■	■
Students communicate length using units.					■			■					
Students explain and analyze patterns in a variety of contexts.					■			■					
Students relate duration to time.	■				■			■					
Students relate data to a variety of representations.	□			■	■			■				■	■
Children examine properties of objects.	■	■	■	■	■		■		■, E	■	■, E		■
Children explore movement of objects, humans, and other animals.							■						



### OVERALL EXPECTATIONS:

#### SCIENCE AND TECHNOLOGY CONTINUED

##### KINDERGARTEN CONTINUED

Children examine and describe surrounding environments.

A TREE'S LIFE  
ADOPT A TREE  
BACKYARD NATURALIST  
BIRDS AND BUGS  
BURSTING BUDS  
DID YOU NOTICE?  
HAVE SEEDS, WILL TRAVEL  
HERE WE GROW AGAIN  
MAKE YOUR OWN PAPER  
PEPPERMINT BEETLE  
THE CLOSER YOU LOOK  
TREES AS HABITATS  
WE ALL NEED TREES

Children interpret instructions in various environments.

A TREE'S LIFE  
ADOPT A TREE  
BACKYARD NATURALIST  
BIRDS AND BUGS  
BURSTING BUDS  
DID YOU NOTICE?  
HAVE SEEDS, WILL TRAVEL  
HERE WE GROW AGAIN  
MAKE YOUR OWN PAPER  
PEPPERMINT BEETLE  
THE CLOSER YOU LOOK  
TREES AS HABITATS  
WE ALL NEED TREES

##### GRADE 1

Students analyze environments and investigate interactions and changes.

A TREE'S LIFE  
ADOPT A TREE  
BACKYARD NATURALIST  
BIRDS AND BUGS  
BURSTING BUDS  
DID YOU NOTICE?  
HAVE SEEDS, WILL TRAVEL  
HERE WE GROW AGAIN  
MAKE YOUR OWN PAPER  
PEPPERMINT BEETLE  
THE CLOSER YOU LOOK  
TREES AS HABITATS  
WE ALL NEED TREES

Students investigate and examine needs of plants and animals.

A TREE'S LIFE  
ADOPT A TREE  
BACKYARD NATURALIST  
BIRDS AND BUGS  
BURSTING BUDS  
DID YOU NOTICE?  
HAVE SEEDS, WILL TRAVEL  
HERE WE GROW AGAIN  
MAKE YOUR OWN PAPER  
PEPPERMINT BEETLE  
THE CLOSER YOU LOOK  
TREES AS HABITATS  
WE ALL NEED TREES

Students follow instructions and relate them to outcomes.

A TREE'S LIFE  
ADOPT A TREE  
BACKYARD NATURALIST  
BIRDS AND BUGS  
BURSTING BUDS  
DID YOU NOTICE?  
HAVE SEEDS, WILL TRAVEL  
HERE WE GROW AGAIN  
MAKE YOUR OWN PAPER  
PEPPERMINT BEETLE  
THE CLOSER YOU LOOK  
TREES AS HABITATS  
WE ALL NEED TREES

##### GRADE 2

Students investigate properties of materials and relate them to a purpose.

A TREE'S LIFE  
ADOPT A TREE  
BACKYARD NATURALIST  
BIRDS AND BUGS  
BURSTING BUDS  
DID YOU NOTICE?  
HAVE SEEDS, WILL TRAVEL  
HERE WE GROW AGAIN  
MAKE YOUR OWN PAPER  
PEPPERMINT BEETLE  
THE CLOSER YOU LOOK  
TREES AS HABITATS  
WE ALL NEED TREES

Students investigate Earth, its landforms, its bodies of water, and its relationship to the Sun.

A TREE'S LIFE  
ADOPT A TREE  
BACKYARD NATURALIST  
BIRDS AND BUGS  
BURSTING BUDS  
DID YOU NOTICE?  
HAVE SEEDS, WILL TRAVEL  
HERE WE GROW AGAIN  
MAKE YOUR OWN PAPER  
PEPPERMINT BEETLE  
THE CLOSER YOU LOOK  
TREES AS HABITATS  
WE ALL NEED TREES

Students investigate the growth and development of plants and animals and consider their relationship to humans.

A TREE'S LIFE  
ADOPT A TREE  
BACKYARD NATURALIST  
BIRDS AND BUGS  
BURSTING BUDS  
DID YOU NOTICE?  
HAVE SEEDS, WILL TRAVEL  
HERE WE GROW AGAIN  
MAKE YOUR OWN PAPER  
PEPPERMINT BEETLE  
THE CLOSER YOU LOOK  
TREES AS HABITATS  
WE ALL NEED TREES

#### TRANSFERABLE SKILLS

Critical thinking and problem solving

A TREE'S LIFE  
ADOPT A TREE  
BACKYARD NATURALIST  
BIRDS AND BUGS  
BURSTING BUDS  
DID YOU NOTICE?  
HAVE SEEDS, WILL TRAVEL  
HERE WE GROW AGAIN  
MAKE YOUR OWN PAPER  
PEPPERMINT BEETLE  
THE CLOSER YOU LOOK  
TREES AS HABITATS  
WE ALL NEED TREES

Innovation, creativity, and entrepreneurship

A TREE'S LIFE  
ADOPT A TREE  
BACKYARD NATURALIST  
BIRDS AND BUGS  
BURSTING BUDS  
DID YOU NOTICE?  
HAVE SEEDS, WILL TRAVEL  
HERE WE GROW AGAIN  
MAKE YOUR OWN PAPER  
PEPPERMINT BEETLE  
THE CLOSER YOU LOOK  
TREES AS HABITATS  
WE ALL NEED TREES

Self-directed learning

A TREE'S LIFE  
ADOPT A TREE  
BACKYARD NATURALIST  
BIRDS AND BUGS  
BURSTING BUDS  
DID YOU NOTICE?  
HAVE SEEDS, WILL TRAVEL  
HERE WE GROW AGAIN  
MAKE YOUR OWN PAPER  
PEPPERMINT BEETLE  
THE CLOSER YOU LOOK  
TREES AS HABITATS  
WE ALL NEED TREES

Collaboration

A TREE'S LIFE  
ADOPT A TREE  
BACKYARD NATURALIST  
BIRDS AND BUGS  
BURSTING BUDS  
DID YOU NOTICE?  
HAVE SEEDS, WILL TRAVEL  
HERE WE GROW AGAIN  
MAKE YOUR OWN PAPER  
PEPPERMINT BEETLE  
THE CLOSER YOU LOOK  
TREES AS HABITATS  
WE ALL NEED TREES

Communication

A TREE'S LIFE  
ADOPT A TREE  
BACKYARD NATURALIST  
BIRDS AND BUGS  
BURSTING BUDS  
DID YOU NOTICE?  
HAVE SEEDS, WILL TRAVEL  
HERE WE GROW AGAIN  
MAKE YOUR OWN PAPER  
PEPPERMINT BEETLE  
THE CLOSER YOU LOOK  
TREES AS HABITATS  
WE ALL NEED TREES

Global citizenship and sustainability

A TREE'S LIFE  
ADOPT A TREE  
BACKYARD NATURALIST  
BIRDS AND BUGS  
BURSTING BUDS  
DID YOU NOTICE?  
HAVE SEEDS, WILL TRAVEL  
HERE WE GROW AGAIN  
MAKE YOUR OWN PAPER  
PEPPERMINT BEETLE  
THE CLOSER YOU LOOK  
TREES AS HABITATS  
WE ALL NEED TREES

### OVERALL EXPECTATIONS:

#### VISUAL ARTS

##### GRADES 3, 4, 5

Students will record or document activities, people and discoveries.

Students will create an original composition, object or space based on supplied motivation.

Students will use media and techniques, with an emphasis on mixing media and perfecting techniques in drawing, painting, print making, sculpture, fabric arts, photography and technographic arts.

#### LANGUAGE

##### GRADE 3

Students examine and apply listening and speaking skills, processes, or strategies in a variety of formal and informal interactions.

Students apply fluency strategies and develop reading comprehension.

Students investigate writing and research processes that support informed written expression.

Students analyze text and make connections to personal experiences to support meaning.

##### GRADE 4

Students examine and demonstrate how listening and speaking support connections and clarify understandings.

Students construct and organize text to share perspectives and develop creative expression.

Students investigate strategies and connections that support text comprehension.

CHARTING BIODIVERSITY

DISCOVERING DIVERSITY

EVERY DROP COUNTS

EVERY TREE FOR ITSELF

FALLEN LOG

GET OUTSIDE!

MY GREEN FUTURE

PEEK AT PACKAGING

POET-TREE

SIGNS OF FALL

SOIL BUILDERS

TREE COOKIES

TREE FACTORY

TREE ID

TREES FOR MANY REASONS

TREES IN TROUBLE

WATER WONDERS

WEB OF LIFE



### OVERALL EXPECTATIONS:

#### LANGUAGE CONTINUED

##### GRADE 5

Students investigate how oral language can be designed to communicate ideas and information.

CHARTING BIODIVERSITY	DISCOVERING DIVERSITY	EVERY DROP COUNTS	EVERY TREE FOR ITSELF	FALLEN LOG	GET OUTSIDE!	MY GREEN FUTURE	PEEK AT PACKAGING	POET-TREE	SIGNS OF FALL	SOIL BUILDERS	TREE COOKIES	TREE FACTORY	TREE ID	TREES FOR MANY REASONS	TREES IN TROUBLE	WATER WONDERS	WEB OF LIFE
■	■	■	■	■	■	■, E	■	■, E		■	■	■		■		■	■

Students enhance the accuracy and artistry of expression through creative and critical thinking processes.

	■, E	■, E		■	■		■	■, E		■				■, E		■	■
--	------	------	--	---	---	--	---	------	--	---	--	--	--	------	--	---	---

#### SOCIAL STUDIES

##### GRADE 3

Students examine resource use in Alberta.

			■, E			■, E		□			□, E	■, E		■, E	□	■, E	■, E
--	--	--	------	--	--	------	--	---	--	--	------	------	--	------	---	------	------

##### GRADE 5

Students investigate ways of studying people, places, and events.

	■					■									■	■	■
--	---	--	--	--	--	---	--	--	--	--	--	--	--	--	---	---	---

Students investigate ways to learn about the world and take action for change.

		■, E			■						□, E			■, E	■	□	
--	--	------	--	--	---	--	--	--	--	--	------	--	--	------	---	---	--

#### SCIENCE AND TECHNOLOGY

##### GRADE 3

Students investigate and analyze how materials have the potential to be changed.

				■		□	■, E									■, E	
--	--	--	--	---	--	---	------	--	--	--	--	--	--	--	--	------	--

Students analyze changes in Earth's surface and explain how its layers hold stories of the past.

										■						■, E	
--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	------	--

Students analyze and describe how plants and animals interact with each other and within environments.

■, E	■		■, E	■, E	■	□		■, E		■	■	■, E	■	■, E	■, E	■, E	■, E
------	---	--	------	------	---	---	--	------	--	---	---	------	---	------	------	------	------

Students relate investigation to building knowledge.

	■	■, E	■, E	■, E	■				■	■, E	■		■		■		■
--	---	------	------	------	---	--	--	--	---	------	---	--	---	--	---	--	---

### OVERALL EXPECTATIONS:

#### SCIENCE AND TECHNOLOGY CONTINUED

##### GRADE 4

Students investigate the systems of Earth and reflect on how their interconnections sustain life.

■, E

■

■

■

■

□

■

■, E

■, E

■, E

■, E

Students analyze organisms and relate external structures to functions.

■, E

■

■, E

■

■, E

■

Students examine and apply design processes to meet needs.

■, E

□

■, E

■, E

Students investigate evidence and reflect on its role in science.

■

■, E

■, E

■, E

■, E

■, E

■

■

■

■, E

##### GRADE 5

Students analyze climate and connect it to weather conditions and agricultural practices.

□

■

Students investigate how evidence is gathered and explain the importance of ethics in science.

■

■, E

■

■

■, E

#### TRANSFERABLE SKILLS

Critical thinking and problem solving

✓, E

✓

✓, E

✓, E

✓, E

✓, E

✓, E

✓, E

✓

✓

✓

Innovation, creativity, and entrepreneurship

✓, E

✓

✓, E

✓, E

✓

Self-directed learning

✓, E

✓

✓, E

✓, E

✓, E

✓

✓, E

Collaboration

✓, E

✓

✓, E

✓

✓, E

✓

✓

✓

✓

✓

✓

✓

✓

✓

Communication

✓, E

✓, E

✓, E

✓

✓, E

✓

✓, E

✓, E

✓

✓

✓, E

✓

✓

✓

✓

✓, E

✓

Global citizenship and sustainability

✓, E

✓, E

✓, E

✓, E

✓

✓

Digital literacy

✓

✓

✓, E

### OVERALL EXPECTATIONS:

#### LANGUAGE

##### GRADES 6

Students interpret and respond to texts through application of comprehension strategies.

Students create texts that reflect personal voice and style through creative and critical thinking processes. (eg research various sources)

Students connect the quality and efficacy of oral communication to oral language skills.

##### GRADES 7 & 8

Students will listen, speak, read, write, view and represent to explore thoughts, ideas, feelings and experiences.

Students will listen, speak, read, write, view and represent to comprehend and respond personally and critically to oral, print and other media texts.

Students will listen, speak, read, write, view and represent to enhance the clarity and artistry of communication.

Students will listen, speak, read, write, view and represent to respect, support and collaborate with others.

#### CAREER AND TECHNOLOGY FOUNDATIONS - ENVIRONMENTAL STEWARSHIP

##### ENS1010: INTRODUCTION TO STEWARDSHIP

Students examine and demonstrate how listening and speaking support connections and clarify understandings.

Identify current local, provincial, national and international environmental stewardship actions and organizations.

Propose shared and personal actions that foster sustainable management of the environment.

DECISIONS, DECISIONS

ENVIRONMENTAL HEALTH FOR ALL

EXPLORATION ENERGY!

FIELD, FOREST, AND STREAM

FOREST IN THE CITY

GLOBAL GOODS

IF YOU WERE THE BOSS

IMPROVE YOUR PLACE

INVASIVE SPECIES

LIFE ON THE EDGE

LIVING WITH FIRE

NATURE'S SKYSCRAPERS

NOTHING SUCCEEDS LIKE SUCCESSION

OUR SHARED FORESTS

PLANT A TREE

REDUCE, REUSE, RECYCLE

RENEWABLE OR NOT?

THE GLOBAL CLIMATE

WHAT'S IN A LABEL?

### OVERALL EXPECTATIONS:

#### CAREER AND TECHNOLOGY FOUNDATIONS - ENVIRONMENTAL STEWARSHIP CONTINUED

##### ENS1030: CONSUMERISM

	DECISIONS, DECISIONS	ENVIRONMENTAL HEALTH FOR ALL	EXPLORATION ENERGY!	FIELD, FOREST, AND STREAM	FOREST IN THE CITY	GLOBAL GOODS	IF YOU WERE THE BOSS	IMPROVE YOUR PLACE	INVASIVE SPECIES	LIFE ON THE EDGE	LIVING WITH FIRE	NATURE'S SKYSCRAPERS	NOTHING SUCCEEDS LIKE SUCCESSION	OUR SHARED FORESTS	PLANT A TREE	REDUCE, REUSE, RECYCLE	RENEWABLE OR NOT?	THE GLOBAL CLIMATE	WHAT'S IN A LABEL?
Identify and discuss the affects of consumerism on sustainable development.			■, E			■, E										■, E	■, E		■
Investigate personal consumption rates and patterns.			■, E			■, E										■, E		■, E	
Investigate and assess impacts throughout the life cycle of a personal consumer product.						■, E													■, E
Explore and evaluate methods of reducing personal consumption rates.			■, E			■, E										■, E	■, E		■, E

##### ENS1040: LIVING WITH THE ENVIRONMENT

	DECISIONS, DECISIONS	ENVIRONMENTAL HEALTH FOR ALL	EXPLORATION ENERGY!	FIELD, FOREST, AND STREAM	FOREST IN THE CITY	GLOBAL GOODS	IF YOU WERE THE BOSS	IMPROVE YOUR PLACE	INVASIVE SPECIES	LIFE ON THE EDGE	LIVING WITH FIRE	NATURE'S SKYSCRAPERS	NOTHING SUCCEEDS LIKE SUCCESSION	OUR SHARED FORESTS	PLANT A TREE	REDUCE, REUSE, RECYCLE	RENEWABLE OR NOT?	THE GLOBAL CLIMATE	WHAT'S IN A LABEL?
Investigate and describe relationships between humans and their environments.	■	■, E			■, E		■, E	■, E		■				■			■, E	■, E	■, E
Investigate and describe the role of different biological and chemical factors that impact environments.		■, E							■, E	■								■, E	
Analyze and evaluate processes affecting the distribution of potentially harmful substances within environments.		■, E																■, E	
Demonstrate processes for measuring and monitoring the quality of air, soil and water in environments.				■, E														■, E	
Describe the relationship between attitudes, skills, knowledge, decisions and actions in maintaining healthy environments.	■, E	■, E	■, E				■, E	■, E	■, E	■				■		■, E	■, E	■, E	

##### ENS1110: NATURAL RESOURCES

	DECISIONS, DECISIONS	ENVIRONMENTAL HEALTH FOR ALL	EXPLORATION ENERGY!	FIELD, FOREST, AND STREAM	FOREST IN THE CITY	GLOBAL GOODS	IF YOU WERE THE BOSS	IMPROVE YOUR PLACE	INVASIVE SPECIES	LIFE ON THE EDGE	LIVING WITH FIRE	NATURE'S SKYSCRAPERS	NOTHING SUCCEEDS LIKE SUCCESSION	OUR SHARED FORESTS	PLANT A TREE	REDUCE, REUSE, RECYCLE	RENEWABLE OR NOT?	THE GLOBAL CLIMATE	WHAT'S IN A LABEL?
Analyze the nature and extent of Alberta's water resources.																			
Analyze the nature and uses of soil and land in Alberta.																			
Analyze the nature and uses of forests in Alberta.	■, E																		■, E
Analyze the nature and uses of wildlife species in Alberta (eg describe the effects of industry practices on wildlife species in Alberta.										■									

### OVERALL EXPECTATIONS:

#### CAREER AND TECHNOLOGY FOUNDATIONS - ENVIRONMENTAL STEWARSHIP CONTINUED

##### ENS1110: NATURAL RESOURCES CONTINUED

Present alternatives and consequences associated with one or more issues involving air, water, soil, land, hydrocarbon, mineral, forest and/or wildlife use in Alberta.

DECISIONS, DECISIONS	ENVIRONMENTAL HEALTH FOR ALL	EXPLORATION ENERGY!	FIELD, FOREST, AND STREAM	FOREST IN THE CITY	GLOBAL GOODS	IF YOU WERE THE BOSS	IMPROVE YOUR PLACE	INVASIVE SPECIES	LIFE ON THE EDGE	LIVING WITH FIRE	NATURE'S SKYSCRAPERS	NOTHING SUCCEEDS LIKE SUCCESSION	OUR SHARED FORESTS	PLANT A TREE	REDUCE, REUSE, RECYCLE	RENEWABLE OR NOT?	THE GLOBAL CLIMATE	WHAT'S IN A LABEL?
■, E		■, E			□, E	■, E		■, E	■				■			■, E	■, E	■, E

##### ENS1115: RESOURCE MANAGEMENT

Analyze soil and land use management practices in Alberta.

■, E					□, E										□, E			■, E
------	--	--	--	--	------	--	--	--	--	--	--	--	--	--	------	--	--	------

Analyze forest management practices in Alberta.

■, E																		■, E
------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	------

Analyze wildlife and habitat management practices in Alberta.

■, E						□, E			■				■					
------	--	--	--	--	--	------	--	--	---	--	--	--	---	--	--	--	--	--

##### ENS2130: RENEWABLE & NONRENEWABLE ENERGY RESOURCES

Describe current and potential sources of energy.

		■, E														■, E	■	
--	--	------	--	--	--	--	--	--	--	--	--	--	--	--	--	------	---	--

Analyze the potential environmental and economic impacts of a variety of current and future renewable and nonrenewable energy sources.

		■, E														■, E	■, E	
--	--	------	--	--	--	--	--	--	--	--	--	--	--	--	--	------	------	--

##### ENS2S10: SUSTAINABLE BUILDING DESIGN & CONSTRUCTION

Investigate and analyze trends in sustainable building design and construction.

				□	□										□			□
--	--	--	--	---	---	--	--	--	--	--	--	--	--	--	---	--	--	---

##### ENS2220: ENERGY CONSERVATION PRINCIPLES

Explain basic principles of energy conservation and efficiency.

		■, E																
--	--	------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

##### ENS3040: ENERGY & THE ENVIRONMENT

Analyze the nature and uses of wildlife species in Alberta (eg describe the effects of industry practices on wildlife species in Alberta).

		■, E															■, E	
--	--	------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	------	--

Plan and implement a group action campaign that fosters environmental awareness, energy conservation and energy efficiency.

		■, E															■	
--	--	------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	---	--

### OVERALL EXPECTATIONS:

#### CAREER AND TECHNOLOGY FOUNDATIONS - ENVIRONMENTAL STEWARSHIP CONTINUED

##### ENS3110: INTEGRATED RESOURCE MANAGEMENT

Present a plan for the sustainable development and integrated use of a land resource.

DECISIONS, DECISIONS

ENVIRONMENTAL HEALTH  
FOR ALL

EXPLORATION ENERGY!

FIELD, FOREST, AND  
STREAM

FOREST IN THE CITY

GLOBAL GOODS

IF YOU WERE THE BOSS

IMPROVE YOUR PLACE

INVASIVE SPECIES

LIFE ON THE EDGE

LIVING WITH FIRE

NATURE'S SKYSCRAPERS

NOTHING SUCCEEDS LIKE  
SUCCESSION

OUR SHARED FORESTS

PLANT A TREE

REDUCE, REUSE, RECYCLE

RENEWABLE OR NOT?

THE GLOBAL CLIMATE

WHAT'S IN A LABEL?

■, E

#### CAREER AND TECHNOLOGY FOUNDATIONS - FORESTRY

##### FOR1010: FORESTS & SOCIETY

Compare the social, economic and environmental significance of forests.

■, E

■, E

■

■, E

Explain how personal needs, wants, beliefs and actions may influence forest resources.

■, E

■

■, E

■

■

■, E

■, E

##### FOR1020: FOREST ECOLOGY IN REGIONS OF CANADA

Describe the structural units of trees and their function in performing life processes

■

Describe the interrelationships among elements in the forest ecosystem

■, E

■

■

■, E

Identify factors that affect the development of forests and determine the distribution of forest regions, considering climate, topography/geology, soil classifications, natural activity.

■, E

■

■

##### FOR1100: FOREST USE & PROTECTION

Describe past and present uses of forests in Alberta and Canada.

■

Explain how the consumptive and non-consumptive use of forests has created a need for the sustainable management of forested regions.

■, E

□, E

■, E

■

■

■, E

Describe the role of research and technology in forest protection.

■, E

■, E

■

■

■, E

### OVERALL EXPECTATIONS:

#### CAREER AND TECHNOLOGY FOUNDATIONS - FORESTRY CONTINUED

##### FOR2010: FORESTRY PROTECTION & STEWARDSHIP

Identify different demands on the forest and the needs of each forest user.

■, E

■, E

□

■, E

■

■

■, E

Demonstrate, through personal and shared actions, a commitment to environmental stewardship.

■, E

■, E

■, E

■

■, E

■, E

■, E

##### FOR2030: REGULATING ALBERTA'S FORESTS

Explain how Alberta's forested lands are managed.

■, E

■

■, E

##### FOR2060: FOREST MENSURATION 1

Explain the goals and techniques for surveying forests.

■, E

■

##### FOR2070: SUSTAINABLE FIBRE HARVESTING & PROCESSING

Identify major components of a sustainable forest land management plan.

□, E

■, E

Develop a forest management plan.

■, E

Explain techniques used in the utilization of wood and product formation.

■

##### FOR2100: FOREST MANAGEMENT

Explain the goals of forest management in Alberta.

■, E

■, E

■, E

Examine different types of forest uses and users in the forest.

■, E

■, E

■

■, E

Describe sustainable management practices within the context of Alberta's forested lands.

■, E

■, E

■, E

■, E

##### FOR3010: ISSUES & TRENDS IN FORESTRY

Describe current issues in forest management considering alternatives and consequences.

■, E

■, E

□, E

■, E

■, E

■

■

■, E

Demonstrate individual and shared actions that foster the sustainable management of forested regions.

■, E

■, E

■, E

■, E

■

■

■, E



### OVERALL EXPECTATIONS:

#### CAREER AND TECHNOLOGY FOUNDATIONS - FORESTRY CONTINUED

#### FOR3090: FOREST ECOLOGY - SILVICS & SUCCESSION

	DECISIONS, DECISIONS	ENVIRONMENTAL HEALTH FOR ALL	EXPLORATION ENERGY!	FIELD, FOREST, AND STREAM	FOREST IN THE CITY	GLOBAL GOODS	IF YOU WERE THE BOSS	IMPROVE YOUR PLACE	INVASIVE SPECIES	LIFE ON THE EDGE	LIVING WITH FIRE	NATURE'S SKYSCRAPERS	NOTHING SUCCEEDS LIKE SUCCESSION	OUR SHARED FORESTS	PLANT A TREE	REDUCE, REUSE, RECYCLE	RENEWABLE OR NOT?	THE GLOBAL CLIMATE	WHAT'S IN A LABEL?
Explain the effects of soil, air and water characteristics on forest ecosystems.				■, E			■, E			■			■, E					■	
Explain the process of change in a forest environment.									■, E	■	■		■, E					■	
Demonstrate practices used to establish a stand of trees and manipulate growing conditions to favour particular species.									■, E				■, E		■				

#### SCIENCE

##### GRADE 6

Students investigate energy resources and explain factors that influence their use.			■, E																
Students investigate climate, changes in climate, and the impact of climate change on Earth.										■	□, E							■, E	
Students investigate the characteristics and components of and interactions within ecosystems.			□, E	■, E	■, E				■, E	■			■, E					■, E	
Students investigate and describe the role of explanation in science.																		■	
Students explore project planning.					■		■, E	■, E			■				■, E	■, E			

##### GRADE 7

Investigate and describe relationships between humans and their environments, and identify related issues and scientific questions.		■, E	■, E		■	■, E	■, E	■, E	■, E	■	■					■, E	■, E	■, E	■, E
Trace and interpret the flow of energy and materials within an ecosystem.				■, E														■, E	■, E
Monitor a local environment, and assess the impacts of environmental factors on the growth, health and reproduction of organisms in that environment.		□, E		■, E									■, E		■				
Describe the relationships among knowledge, decisions and actions in maintaining life-supporting environments.	■, E	■, E	■, E				■, E	■, E	■, E	■	■, E							■, E	■, E

### OVERALL EXPECTATIONS:

#### SCIENCE CONTINUED

#### GRADE 7 CONTINUED

	DECISIONS, DECISIONS	ENVIRONMENTAL HEALTH FOR ALL	EXPLORATION ENERGY!	FIELD, FOREST, AND STREAM	FOREST IN THE CITY	GLOBAL GOODS	IF YOU WERE THE BOSS	IMPROVE YOUR PLACE	INVASIVE SPECIES	LIFE ON THE EDGE	LIVING WITH FIRE	NATURE'S SKYSCRAPERS	NOTHING SUCCEEDS LIKE SUCCESSION	OUR SHARED FORESTS	PLANT A TREE	REDUCE, REUSE, RECYCLE	RENEWABLE OR NOT?	THE GLOBAL CLIMATE	WHAT'S IN A LABEL?
Ask questions about the relationships between and among observable variables, and plan investigations to address those questions.		■, E		■, E	■														
Conduct investigations into the relationships between and among observations, and gather and record qualitative and quantitative data.		■, E	■, E	■, E	■						■		■				■		
Analyze qualitative and quantitative data, and develop and assess possible explanations.			■, E	■, E	■	■, E	■, E				■		■			■		■	
Investigate plant uses; and identify links among needs, technologies, products and impacts.	■, E				■, E	□, E						■							■, E
Investigate life processes and structures of plants, and interpret related characteristics and needs of plants in a local environment.			■, E										■, E					■	
Analyze plant environments, and identify impacts of specific factors and controls.				■, E					□, E	■			■, E						
Ask questions about the relationships between and among observable variables, and plan investigations to address those questions.				■, E							■								
Conduct investigations into the relationships between and among observations, and gather and record qualitative and quantitative data.				■, E						□, E	■		■, E					■	
Analyze qualitative and quantitative data, and develop and assess possible explanations.				■, E	■		■, E				■								
Work collaboratively on problems; and use appropriate language and formats to communicate ideas, procedures and results.				■, E			■, E	■		■	■							■	

### OVERALL EXPECTATIONS:

#### MATHEMATICS

##### GRADE 6

Students investigate magnitude with positive and negative numbers.

Students solve problems using standard algorithms for addition and subtraction.

#### TRANSFERABLE SKILLS

Critical thinking and problem solving

Innovation, creativity, and entrepreneurship

Self-directed learning

Collaboration

Communication

Global citizenship and sustainability

Digital literacy

DECISIONS, DECISIONS

ENVIRONMENTAL HEALTH FOR ALL

EXPLORATION ENERGY!

FIELD, FOREST, AND STREAM

FOREST IN THE CITY

GLOBAL GOODS

IF YOU WERE THE BOSS

IMPROVE YOUR PLACE

INVASIVE SPECIES

LIFE ON THE EDGE

LIVING WITH FIRE

NATURE'S SKYSCRAPERS

NOTHING SUCCEEDS LIKE SUCCESSION

OUR SHARED FORESTS

PLANT A TREE

REDUCE, REUSE, RECYCLE

RENEWABLE OR NOT?

THE GLOBAL CLIMATE

WHAT'S IN A LABEL?

