

The planning for the inquiry included making specific links to the various subject areas in the Alberta Curriculum when designing the tasks and activities. Below are specific links to curriculum.

Science

Aside from the work associated with the creation of the website, the children through experiments, class discussion and research will:

1. Study the parts of a plant. Learn how each part has a specific role and that plant parts have adapted in unique ways to the environment.
2. Research what a plant is. Find examples of different sizes, colours, species, etc.
3. Collect seeds. Learn how seeds travel in nature. Prepare seeds for planting. Plant seeds in classroom greenhouse. Use different soil mixtures to study effects of nutrients. Transplant plants outdoors in the spring according to ecosystem requirements. Record changes and observations in field book.
4. Collect other plant parts- roots, cuttings, etc. and grow in the classroom greenhouse.
5. Research the ways in which humans and plants are interconnected and dependent upon one another for survival.
6. Collect plants, learn about ethical and ethnobotanical practices. Record information in field journal.
7. Create herbarium sample according to universal botany standards.
8. Prepare tinctures, teas and infusions of plants.
9. Analyze plants according to a variety of chemical experiments.
10. Explore different uses of plants by humans. Learn how to make cordage, paper, dyes, etc.

Curriculum ties:

Topic A: Waste and Our World

Students will:

1. Identify plant and animal wastes, and describe how they are recycled in nature For example, plant leaves serve as a source of food for soil insects, worms and other creatures. The wastes of these animals may then be further broken down by molds, fungi and bacteria.

Topic E: Plant Growth and Change

General Learner Expectations

Students will:

4–10 Demonstrate knowledge and skills for the study, interpretation, propagation and enhancement of plant growth.

Specific Learner Expectations

Students will:

1. Describe the importance of plants to humans and their importance to the natural environment. Students who meet this expectation should be able to give examples of plants being used as a source of food or shelter, and be aware of the role plants play in the environment; e.g., preventing erosion, maintaining oxygen.
2. Identify and describe the general purpose of plant roots, stems, leaves and flowers.
3. Describe common plants, and classify them on the basis of their characteristics and uses.
4. Recognize that plant requirements for growth; i.e., air, light energy, water, nutrients and space; vary from plant to plant and that other conditions; e.g., temperature and humidity; may also be important to the growth of particular plants.
5. Identify examples of plants that have special needs.
6. Recognize that a variety of plant communities can be found within the local area and that differences in plant communities are related to variations in the amount of light, water and other conditions.
7. Recognize that plants of the same kind have common life cycle and produce new plants that are similar, but not identical, to the parent plants.
8. Describe ways that various flowering plants can be propagated, including from seed, from cuttings, from bulbs and by runners.
9. Nurture a plant through one complete life cycle—from seed to seed.
10. Describe the care and growth of a plant that students have nurtured, in particular:
 - identify the light, temperature, water and growing medium requirements of the plant
 - identify the life stages of the plant
 - identify the reproductive structures of the plant.
11. Describe different ways that seeds are distributed; e.g., by wind, by animals; and recognize seed adaptations for different methods of distribution.

Skills

Science Inquiry General Learner Expectations

Students will:

4–1 Investigate the nature of things, demonstrating purposeful action that leads to inferences supported by observations.

4–2 Identify patterns and order in objects and events studied; and record observations, using pictures, words and charts, with guidance in the construction of charts; and make predictions and generalizations, based on observations.

Specific Learner Expectations

Students will:

Focus

- ask questions that lead to exploration and investigation
- identify one or more possible answers to questions by stating a prediction or a hypothesis

Explore and Investigate

- identify, with guidance, ways of finding answers to given questions
- carry out, with guidance, procedures that comprise a fair test
- identify materials and how they are used
- work independently or with others to carry out the identified procedures
- identify, with guidance, sources of information and ideas and access information and ideas from those sources. Sources may include library, classroom, community and computer-based resources

Reflect and Interpret

- communicate with group members, showing ability to contribute and receive ideas
- record observations and measurements accurately, using captioned pictures and charts, with guidance in the construction of charts. Computer resources may be used for record keeping and for display and interpretation of data
- state an inference, based on observations

- identify possible applications of what was learned
- identify new questions that arise from what was learned.

Attitudes

General Learner Expectations

Students will:

4–4 Demonstrate positive attitudes for the study of science and for the application of science in responsible ways.

Specific Learner Expectations

Students will show growth in acquiring and applying the following traits:

- curiosity
- confidence in personal ability to explore materials and learn by direct study
- inventiveness and willingness to consider new ideas
- perseverance in the search for understandings and for solutions to problems
- a willingness to base their conclusions and actions on the evidence of their own experiences
- a willingness to work with others in shared activities and in sharing of experiences
- appreciation of the benefits gained from shared effort and cooperation
- a sense of responsibility for personal and group actions
- respect for living things and environments, and commitment for their care.

Click on the following link for the Alberta Elementary Science Curriculum in entirety:

http://www.education.gov.ab.ca/k_12/curriculum/bysubject/science/elemsci.pdf

English Language Arts

Within the project, the children will be required to:

1. Learn interviewing skills, questioning strategies and note taking skills when videoing elders.
2. Conduct independent research and create a 4 web page botanical research paper of 12 plants.
3. Prepare a ethnobotany research paper on one or more plants.
4. Record personal reflections of the work in the project.
5. Create a fictional piece of writing for publication.
6. View various media for research purposes.
7. Be exposed to different genre during research (eg. narratives, myths, legends, scientific papers, poetry, etc.)
8. Orally present a story.
9. Present project to a wide range of audiences, including: university students, conference delegates, the Galileo AGM, board members, school mates, etc.

These activities cover the following skill objectives in the AB. Curriculum.

Language Arts

General Outcome 1

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

1.1 Discover and Explore

Express ideas and develop understanding

- compare new ideas, information and experiences to prior knowledge and experiences
- ask questions, paraphrase and discuss to explore ideas and understand new concepts

- share personal responses to explore and develop

Experiment with Language and Forms

- discuss and compare the ways similar topics are developed in different forms of oral, print and other media texts

Express preferences

- select preferred forms from a variety of oral, print and other media texts

Set goals

- identify areas of personal accomplishment and areas for enhancement in language learning and use

1.2 Clarify and Extend

Consider the ideas of others

- Identify other perspectives by exploring a variety of ideas, opinions, responses and oral, print and other media texts

Combine ideas

- Use talk, notes, personal writing and representing to record and reflect on ideas, information and experiences

Extend understanding

- Explore ways to find additional ideas and information to extend understanding

General Outcome 2

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

2.1 Use Strategies and Cues

Use prior knowledge

- use ideas and concepts, developed through personal interests, experiences and discussion, to understand new ideas and information
 - explain how the organizational structure of oral, print and other media texts can assist in constructing and confirming meaning

Use comprehension strategies

- comprehend new ideas and information by responding personally and discussing ideas with others
- extend sight vocabulary to include words frequently used in other subject areas
- monitor understanding by confirming or revising inferences and predictions based on information in text

Use references

- use alphabetical order by first and second letter to locate information in reference materials
- use junior dictionaries, spell-check functions and electronic dictionaries to confirm the spellings or locate the meanings of unfamiliar words in oral, print and other media texts

2.2 Respond to Texts

Experience various texts

- experience oral, print and other media texts from a variety of cultural traditions and genres, such as personal narratives, plays, novels, video programs, adventure stories, folk tales, informational texts, mysteries, poetry and CDROM programs
- identify and discuss favorite authors, topics and kinds of oral, print and other media texts
- discuss a variety of oral, print or other media texts by the same author, illustrator, storyteller or filmmaker
- retell events of stories in another form or medium
- make general evaluative statements about oral, print and other media texts

Construct meaning from texts

- connect the thoughts and actions of characters portrayed in oral, print and other media texts to personal and classroom experiences
- compare similar oral, print and other media texts and express preferences, using evidence from personal experiences and the texts
- develop own opinions based on ideas encountered in oral, print and other media texts

Appreciate the artistry of texts

- explain how language and visuals work together to communicate meaning and enhance effect

2.3 Understand Forms, Elements and Techniques

Understand forms and genres

- describe and compare the main characteristics of a variety of oral, print and other media texts
- identify various ways that information can be recorded and presented visually

Understand techniques and elements

- identify ways that messages are enhanced in oral, print and other media texts by the use of specific techniques
- identify and explain connections among events, setting and main characters in oral, print and other media texts
- identify the speaker or narrator of oral, print or other media texts
- identify how specific techniques are used to affect viewer perceptions in media texts

Experiment with language

- recognize how words and word combinations, such as word play, repetition and rhyme, influence or convey meaning

2.4 Create Original Text

Generate ideas

- use a variety of strategies for generating and organizing ideas and experiences in oral, print and other media texts

Elaborate on the expression of ideas

- select and use visuals that enhance meaning of oral, print and other media texts

Structure texts

- produce narratives that describe experiences and reflect personal responses

3.1 Plan and Focus

Focus attention

- use organizational patterns of expository texts to understand ideas and information
- focus topics appropriately for particular audiences

Determine information needs

- ask relevant questions, and respond to questions related to particular topics

Plan to gather information

- develop and follow a class plan for accessing and gathering ideas and information

3.2 Select and Process

Use a variety of sources

- locate information to answer research questions, using a variety of sources, such as maps, atlases, charts, dictionaries, school libraries, video programs, elders in the community and field trips

Access information

- use a variety of tools, such as indices, legends, charts, glossaries, typographical features and dictionary guide words, to access information
- identify information sources that inform, persuade or entertain, and use such sources appropriately

Evaluate sources

- recall important points, and make and revise predictions regarding upcoming information

Organize information

- organize ideas and information, using appropriate categories, chronological order, cause and effect, or posing and answering questions
- record ideas and information that are on topic
- organize oral, print and other media texts into sections that relate to and develop the topic

Record information

- make notes of key words, phrases and images by subtopics; cite titles and authors of sources alphabetically
- paraphrase information from oral, print and other media sources

Evaluate information

- examine gathered information to identify if more information is required; review new understanding

3.4 Share and Review

Share ideas and information

- communicate ideas and information in a variety of oral, print and other media texts, such as short reports, talks and posters
- select visuals, print and/or other media to add interest and to engage the audience

Review research process

- identify strengths and areas for improvement in research process

4.1 Enhance and Improve

Appraise own and others work

- identify the general impression and main idea communicated by own and peers oral, print and other media texts
- use pre-established criteria to provide support and feedback to peers on their oral, print and other media texts

Revise and edit

- revise to ensure an understandable progression of ideas and information
- identify and reduce fragments and run-on sentences

Enhance legibility

- use special features of software when composing, formatting and revising texts

Expand knowledge of language

- use an increasing variety of words to express and extend understanding of concepts related to personal interests and topics of study

Enhance artistry

- experiment with combining detail, voice-over, music and dialogue with sequence of events

4.2 Attend to Conventions

- Attend to grammar and usage
- Attend to spelling
- Attend to capitalization and punctuation

4.3 Present and Share

Present information

- present to peers ideas and information on a topic of interest, in a well-organized form

Enhance presentation

- add interest to presentations through the use of props, such as pictures, overheads and artifacts

Use effective oral and visual communication

- adjust volume, tone of voice and gestures appropriately, to suit a variety of social and classroom activities

Demonstrate attentive listening and viewing presentations

- give constructive feedback, ask relevant questions, and express related opinions in response to oral and visual presentations

5.1 Respect Others and Strengthen Community

Appreciate diversity

- describe similarities and differences between personal experiences and the experiences of people or characters from various cultures portrayed in oral, print and other media texts
- appreciate that responses to some oral, print or other media texts may be different

Relate texts to culture

- identify and discuss main characters, plots, settings and illustrations in oral, print and other media texts from diverse cultures and communities

Celebrate accomplishments and events

- use appropriate language to acknowledge special events and to honour accomplishments in and beyond the classroom

Use language to show respect

- demonstrate respect for the ideas, abilities

Cooperate with others

- work cooperatively with others in small groups on structured tasks
- identify others who can provide assistance, and seek their help in specific situations
- take responsibility for collaborating with others to achieve group goals
- ask for and provide information and assistance, as appropriate, for completing individual and

group tasks

Work in groups

- contribute ideas and information on topics to develop a common knowledge base in the group
- ask others for their ideas, and express interest in their ideas
- share personal knowledge of a topic to develop purposes for research or investigations and possible categories of questions
- use brainstorming, summarizing and reporting to organize and carry out group projects

Evaluate group process

- assess the effectiveness of group process, using pre-established criteria
- assess group process, using established criteria, and determine areas for improvement

language use of others

- identify and discuss differences in language use in a variety of school and community contexts

Work with others

Cooperate with others

- work cooperatively with others in small groups on structured tasks
- identify others who can provide assistance, and seek their help in specific situations

take responsibility for collaborating with others to achieve group goals

- ask for and provide information and assistance, as appropriate, for completing individual and group tasks

Work in groups

- contribute ideas and information on topics to develop a common knowledge base in the group
- ask others for their ideas, and express interest in their contributions
- share personal knowledge of a topic to develop purposes for research or investigations and possible categories of questions
- use brainstorming, summarizing and reporting to organize and carry out group projects

Evaluate group process

- assess the effectiveness of group process, using pre-established criteria
- assess group process, using established criteria, and determine areas for improvement

Click on the following link for the Alberta English Language Arts Curriculum in entirety:
<http://www.education.gov.ab.ca/k%5F12/curriculum/bysubject/english/elaK-9.pdf>

Social Studies

Within the project, the children will

1. Create maps of current and traditional land and resources by using historical documents, elder interviews, political boundaries and GPS readings.
2. Research how different land use practices and resource development impacts the Reserve ecologically, economically and culturally.
3. By viewing various cultural artifacts, the children will have opportunity to learn about traditional practices and issues.
4. Through elder interviews, literature, museum visits and websites, children will learn about the people who have contributed to Alberta's history and development, beginning with the original inhabitants, and tracing the people in Alberta's history. After this inquiry, an extension may be to compare history of the Blackfoot with other groups which impacted Alberta's development (furtraders/immigrants)

This project will touch on many of the Curriculum objectives below.

TOPIC A ALBERTA: ITS GEOGRAPHY AND PEOPLE

This study focuses on the geography of Alberta; the regions and natural resources. Throughout the unit, emphasis is placed on the interrelationships between people and their environment, as well as the impact people have on their environment. The intent of the unit is to develop an increased sensitivity to the importance of using natural resources wisely.

QUESTIONS AND ISSUES FOR INQUIRY

Questions and issues can provide a focus for teachers to organize knowledge, skill and attitude objectives for instructional purposes. Several questions and/or issues must be addressed in each topic, using appropriate inquiry strategies. Teachers are encouraged to adapt these, and to develop other questions and issues for inquiry.

Questions

How do Albertans make use of their natural resources?

What is the effect of technology on the location, development and use of natural resources?

Do the natural resources in Alberta supply all our needs?

How does our way of using natural resources affect/influence our environment?

Are we conserving our resources for future generations?

Issues

Should people make major changes in their physical environment to meet their needs?

Should resource development be allowed regardless of location or previous designation of land use; e.g., provincial park, agricultural land, reserve, archaeological reserve, historical site, wildlife sanctuary?

How should we use natural resources in ways that best benefit Albertans and others?

Should we use our natural resources without limitations?

MAJOR GENERALIZATION: The availability and use of natural resources affects people and their environment.

KNOWLEDGE OBJECTIVES The student will demonstrate an understanding of the following:

GENERALIZATIONS CONCEPTS RELATED FACTS AND CONTENT

• the natural and human-made components of the environment; e.g., natural: rivers, forests, water; human-made: dams, buildings, roads

- Our way of life and our environment are affected by the presence and use of natural resources.
- natural resources renewable resources non-renewable resources

• natural resources available in Alberta; e.g., land, water, fossil fuels, animals, forests, minerals

• difference between a renewable and a non-renewable resources

- people modify and change the environment according to their needs; e.g., the construction of roads

- Conservation is important to Alberta's future.

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PROCESS SKILLS

Locating/Organizing/Interpreting Information

- identify possible sources of information; e.g., print, non-print, interviews, survey
- locate information, using library skills to choose appropriate resources for research
 - find different categories of books, according to the Dewey Decimal System
 - use a card catalogue to find call numbers
 - use call numbers to find resources
 - use a card catalogue to learn that a book is listed three ways: by subject, by author and by title
 - use files to obtain pamphlets, pictures, clippings, etc.
 - use table of contents, index, glossary
- select pertinent information from newspapers, magazines and pamphlets
- acquire information by reading to find the main idea and supporting details

SKILL OBJECTIVES The student will be able to do the following:

- acquire information and draw inferences from pictorial resources; e.g., pictures, graphs, charts
- gather information by conducting a survey of opinions on conservation of Alberta's resources
- organize information through the use of pictures, charts, graphs and reports accompanied by a title
- interpret the relationships and draw inferences from graphs, tables, charts
- use computer programs to assist in the study of specific content areas (where appropriate software and hardware are available)

Geography/Mapping

- use and interpret aerial photographs and maps of Alberta
- describe the location, using cardinal and intercardinal directions
- locate and describe major geographical regions and specific geographical features such as lakes, rivers, cities and mountains
- use maps of different scales and themes (e.g., natural resources) in an atlas
- make an outline map of Alberta, accompanied by developed symbols and a legend showing major cities, mountains and main rivers
- orient desk outline, textbook and atlas maps correctly to the north
- compare distances in kilometres to places under study
- use colour contour and visual relief maps to visualize the nature of the areas shown

Analyzing/Synthesizing/Evaluating

- analyze how changes in technology can affect our use of natural resources
- analyze how the use of a natural resource can affect the rest of the environment
- predict the consequences of misusing natural resources
- compare and contrast points of view and underlying values; e.g., about how Alberta's resources are used
- draw conclusions about the use of renewable and non-renewable resources

COMMUNICATION SKILLS

- use simple illustrations, charts and graphs to support written work (two- to four-sentence paragraphs)
- use an illustration (e.g., cartoon, poster) to show how natural resources are used, or the importance of conservation
- organize information on a topic, using a simple outline, webbing, retrieval chart, etc.
- in a final written product, apply the skills of revising and editing by considering content, organization, vocabulary, sentence structure and mechanics of writing

PARTICIPATION SKILLS

- make meaningful contributions to discussions, supporting ideas with facts and reasons
- participate in a small group discussion or activity by following established rules
- cooperate and compromise to solve group problems
- plan, carry out and evaluate an action aimed to demonstrate conservation
- appreciation of the impact that people can make on the environment

- concern for the needs of future Albertans
- appreciation of and pride in the beauty of the natural environment
- cooperation in efforts to conserve
- respect for someone's opinion, viewpoint and property

TOPIC B ALBERTA: ITS PEOPLE IN HISTORY

This study focuses on the people who have contributed to Alberta's history and development, beginning with the original inhabitants, and tracing the people in Alberta's history. It focuses on the lives of Albertans through the following case studies:

A Native community, a fur trading settlement, and one or more of the following:

- immigration of a specific group, or immigration into a specific area (1880–1930)
- The intent of this study is to show students that a changing world often results in a changing lifestyle. The approach of selecting specific people and/or events for an in-depth historical study is intended to develop an interest in and an appreciation of people and events in history. It is not a chronological political history.

QUESTIONS AND ISSUES FOR INQUIRY

Questions and issues can provide a focus for teachers to organize knowledge, skill and attitude objectives for instructional purposes. Several questions and/or issues must be addressed in each topic, using appropriate inquiry strategies. Teachers are encouraged to adapt these and to develop other questions and issues for inquiry.

Questions

How have changes and challenges caused Albertans to adjust their lifestyle?
 How have Albertans adjusted their lifestyles to meet changes and challenges?
 What was the Native people's way of life before the coming of the Europeans?
 How did the Europeans influence the Native people's way of life; e.g., livelihood, family life and political structure? How did the Natives influence the European's way of life?

MAJOR GENERALIZATION: People and events in the history of Alberta have affected each other, as well as development and settlement.

GENERALIZATIONS CONCEPTS RELATED FACTS AND CONTENT

The contact between the Natives, the fur traders and the settlers in Alberta's history brought changes to their lifestyles.

- the Native lifestyles before European influence
- how the fur traders and settlers brought about change to the Native people's lifestyle; e.g., by introducing Christianity, technology and law enforcement; by killing buffalo; by building fences; immigration; by the introduction of alcohol; and by the signing of treaties
- how the Natives affected the lifestyle of the traders and settlers; e.g., food, hunting practices, transportation

Albertans have been affected and challenged by historical events.

KNOWLEDGE OBJECTIVES The student will demonstrate an understanding of the following:

GENERALIZATIONS CONCEPTS RELATED FACTS AND CONTENT

Albertans throughout the history of Alberta have contributed to its development.

Contribution

- how people and groups of people contributed to the development of Alberta, such as:
 - different groups of people worked together in a team effort
 - shared knowledge with others; e.g., about medicine, food, transportation, hunting
 - cleared land and established farmsteads
 - built railways, towns
 - defended our country
 - contributions of individuals

PROCESS SKILLS

Locating/Organizing/Interpreting Information

- acquire information by reading, viewing and listening to identify the main idea and supporting details
- gather information by:
 - identifying the sequence of ideas or events
 - identifying time and place relationships (setting)
 - identifying cause–effect relationships

- using definite time concepts such as decade and century
- calculating the length of time between two given dates
- acquire information by conducting an interview and/or field study to make use of community resources; e.g., museum, senior citizens' home
- use planned procedures
- record and summarize information from the interview/field study
- assess the success of the planning and enactment of the field study and/or interview
- organize information by classifying pictures, facts and events under main headings/categories
- organize information by arranging events in chronological order; e.g., time line in order to establish a framework

Geography/Mapping

- use historical maps and map legends to locate the territories occupied by different Indian tribes, major fur trading posts and communities under study
- give possible reasons for the location of the major fur trading posts, fur trade routes, railroads and settlements, such as towns or cities

Analyzing/Synthesizing/Evaluating

- compare and contrast the changes faced by several of the following: Natives, the fur traders, settlers, the people living during the Great Depression and World War II
- identify how events in Alberta's history affected the lifestyle of Albertans

SKILL OBJECTIVES The student will be able to do the following:

COMMUNICATION SKILLS

- orally present information on a period of Alberta's history, based on prepared notes and supported by pictorial materials giving consideration to the audience, use of social studies terms, content and organization
- express ideas, in sentence and/or paragraph form, on how change has affected the lifestyle of Albertans, supporting main idea with appropriate detail
- role play a historical event or show Albertans' adjustment to a changing lifestyle
- write a page of a diary or journal entry, or present information on an audiotape recording

PARTICIPATION SKILLS

- participate cooperatively in group work by helping to make the rules, divide up the tasks, assign jobs and evaluate the group's performance
- accept the roles of leader and/or follower, as the situation requires
- plan and carry out an action that shows appreciation for a person/group of people in Alberta's history
- appreciation of the contributions made by the many people/groups in Alberta's history
- appreciation of and tolerance toward the decisions made by Albertans in different times and under different circumstances

ATTITUDE OBJECTIVES The student will be encouraged to develop:

- appreciation of the contributions made by the many people/groups in Alberta's history
- appreciation of and tolerance toward the decisions made by Albertans in different times and under different circumstances

Resources:

Glenbow Museum

Our Roots <http://www.ourroots.ca/>

Alberta's Past Our Future http://www.albertaheritage.net/directory/digitization_project.html

First Nations http://www.ucalgary.ca/applied_history/tutor/firstnations/

Canada's heriloom Series http://collections.ic.gc.ca/heirloom_series/volume2/volume2.htm

Fur Traders http://collections.ic.gc.ca/alberta/fur_trade/native_waterways.html

Atlas of Canada <http://atlas.gc.ca/site/english/index.html>

Click on the following link for the Alberta Elementary Social Studies Curriculum in entirety;
http://www.education.gov.ab.ca/k_12/curriculum/bysubject/social/default.asp

Technology Integration

This project will require the children to use the following technologies

1. Digital cameras
2. Video cameras
3. Audio recording equipment
4. Editing software
5. Word processing programs
6. Email
7. Web page design

Proficiency in the specific outcomes below is likely:

ICT Outcomes, Division 2

Specific Outcomes

- 2.1 access and retrieve appropriate information from the Internet by using a specific search path or from given uniform resource locations (URLs)
- 2.2 organize information gathered from the Internet, or an electronic source, by selecting and recording the data in logical files or categories; and by communicating effectively, through appropriate forms, such as speeches, reports and multimedia presentations, applying information technologies that serve particular audiences and purposes

C.2 - Students will seek alternative viewpoints, using information technologies.

Specific Outcomes

- 2.1 seek responses to inquiries from various authorities through electronic media

C.3 - Students will critically assess information accessed through the use of a variety of technologies.

Specific Outcomes

- 2.1 identify and distinguish points of view expressed in electronic sources on a particular topic
- 2.2 recognize that information serves different purposes and that data from electronic sources may need to be verified to determine accuracy or relevance for the purpose used

C.4 - Students will use organizational processes and tools to manage inquiry.

Specific Outcomes

- 2.1 design and follow a plan, including a schedule, to be used during an inquiry process, and make revisions to the plan, as necessary
- 2.2 organize information, using such tools as a database, spreadsheet or electronic webbing
- 2.3 reflect on and describe the processes involved in completing a project

C.5 - Students will use technology to aid collaboration during inquiry.

Specific Outcomes

- 2.1 retrieve data from available storage devices, such as a shared folder, to which a group has contributed
- 2.2 record group brainstorming, planning and sharing of ideas by using technology
- 2.3 extend the scope of a project beyond classroom collaboration by using communication technologies, such as the telephone and email

C.6 - Students will use technology to investigate and/or solve problems.

Specific Outcomes

- 2.1 select and use technology to assist in problem solving
- 2.2 use data gathered from a variety of electronic sources to address identified problems
- 2.3 use graphic organizers, such as mind mapping/webbing, flow charting and outlining, to present connections between ideas and information in a problem-solving environment
- 2.4 solve problems, using numerical operations and such tools as calculators and spreadsheets

- 2.5solve problems requiring the sorting, organizing, classifying and extending of data, using such tools as calculators, spreadsheets, databases or hypertext technology
- 2.6solve issue-related problems, using such communication tools as a word processor or email to involve others in the process
- 2.7generate alternative solutions to problems by using technology to facilitate the process

C.7 - Students will use electronic research techniques to construct personal knowledge and meaning.
Specific Outcomes

- 2.1use a variety of technologies to organize and synthesize researched information
- 2.2use selected presentation tools to demonstrate connections among various pieces of information

F.1 - Students will demonstrate an understanding of the nature of technology.

Specific Outcomes

- 2.1apply terminology appropriate to the technologies being used at this division level
- 2.2identify and apply techniques and tools for communicating, storing, retrieving and selecting information
- 2.3explain the advantages and limitations of using computers to store, organize, retrieve and select information
- 2.4recognize the potential for human error when using technology

F.2 - Students will understand the role of technology as it applies to self, work and society.

Specific Outcomes

- 2.1identify how technological developments influence one's life
- 2.2identify the role technology plays in a variety of careers
- 2.3examine the environmental issues related to the use of technology
- 2.4assess the personal significance of having limitless access to information provided by communication networks, such as the Internet
- 2.5describe, using examples, how communication and information networks, such as the telephone and the Internet, create a global community

F.3 - Students will demonstrate a moral and ethical approach to the use of technology.

Specific Outcomes

- 2.1comply with the acceptable use policy of the school and school authority for Internet and networked services, including software licensing agreements
- 2.2work collaboratively to share limited resources
- 2.3use appropriate communication language and etiquette
- 2.4document sources obtained electronically, such as web site addresses
- 2.5respect the privacy and products of others
- 2.6use electronic networks in an ethical manner
- 2.7comply with copyright legislation

F.4 - Students will become discerning consumers of mass media and electronic information.

Specific Outcomes

- 2.1recognize that graphics, video and sound enhance communication
- 2.2describe how the use of various texts and graphics can alter perception
- 2.3discuss how technology can be used to create special effects and/or to manipulate intent through the use of images and sound

F.5 - Students will practise the concepts of ergonomics and safety when using technology.

Specific Outcomes

- 2.1demonstrate the application of ergonomics to promote personal health and well-being
- 2.2identify and apply safety procedures required for the technology being used

F.6 - Students will demonstrate a basic understanding of the operating skills required in a variety of technologies.

Specific Outcomes

- 2.1power up and power down various technologies and peripherals correctly
- 2.2use and organize files and directories
- 2.3use peripherals, including printers and scanners
- 2.4use appropriate keyboarding techniques for the alphabetic and punctuation keys

P.1 - Students will compose, revise and edit text.

Specific Outcomes

- 2.1 create and revise original text to communicate and demonstrate understanding of forms and techniques
- 2.2 edit and format text to clarify and enhance meaning, using such word processing features as the thesaurus, find/change, text alignment, font size and font style
- 2.3 convert digital text files by opening and saving them as different file types

P.2 - Students will organize and manipulate data.

Specific Outcomes

- 2.1 enter and manipulate data by using such tools as spreadsheets or databases for a specific purpose
- 2.2 display data electronically through graphs and charts

P.3 - Students will communicate through multimedia.

Specific Outcomes

- 2.1 create a multimedia presentation, incorporating such features as visual images (clip art, video clips), sounds (live recordings, sound clips) and animated images, appropriate to a variety of audiences and purposes
- 2.2 access available databases for images to support communication

P.4 - Students will integrate various applications.

Specific Outcomes

- 2.1 integrate a spreadsheet, or graphs generated by a spreadsheet, into a text document
- 2.2 vary font size and font style, and placement of text and graphics, in order to create a certain visual effect

P.5 - Students will navigate and create hyperlinked resources.

Specific Outcomes

- 2.1 create and navigate a multiple-link document
- 2.2 navigate through a document that contains links to locate, copy and then paste data in a new file
- 2.3 navigate the Internet with appropriate software

P.6 - Students will use communication technology to interact with others.

Specific Outcomes

- 2.1 select and use the technology appropriate to a given communication situation

Click on the following link for the **Information and Communication Technology Document** in entirety:

http://www.education.gov.ab.ca/k_12/curriculum/bysubject/ict/

ART

This project will ask children to represent different aspects of plants through:

Drawing with pencil and pastel

Print making

Textiles (dying, weaving, cordage)

Sculpting

Painting

Web page design

Photography

Paper making

Beading

Students will also keep a field journal.

Class visit to the Glenbow Museum to view artifacts and Native Art.

The following Art Curriculum objectives will be met by these art opportunities:

LEVEL TWO (Grades 3 and 4)

REFLECTION

Component 1 ANALYSIS: Students will make distinctions within classes of natural objects or forms.

Concepts

- A. Each class of natural forms has distinguishing characteristics.
- B. Natural forms are related functionally to their environment.
- C. Earth and water forms reveal many variations.
- D. Environments are altered by natural forces.
- E. Change in natural forms occurs over time.

Component 2 ASSESSMENT:

Students will assess the visual qualities of objects.

Concepts

- E. Useful objects can be derived from designs in nature.

Component 3 APPRECIATION: Students will interpret artworks by examining their context and less visible characteristics.

Concepts

- A. Contextual information (geographical, historical, biographical, cultural) may be needed to understand works of art.
- B. Artistic style is largely the product of an age.
- C. Technological change affects types of art.
- D. Our associations influence the way we experience a work of art.
- E. Art is valued for different reasons; e.g., aesthetic, economic, symbolic, associative.
- F. Art serves societal as well as personal needs.

Component 5 ACTIONS AND VIEW-POINTS:

Students will select appropriate references for depicting.

Component 6 QUALITIES AND DETAILS: Students will refine surface qualities of objects and forms.

Concepts

- A. Texture can be represented from a range of different studio techniques.
- B. Colour can be made to appear dull or bright.
- C. Gradations of tone are useful to show depth or the effect of light on objects.
- D. By increasing details in the foreground the illusion of depth and reality can be enhanced.

COMPOSITION

Component 7 EMPHASIS: Students will create emphasis by the treatment of forms and qualities.

Concepts

- A. The centre of interest can be made prominent by contrasting its size, shape, colour or texture from the other parts of the composition.
- B. Format can be adjusted and composition tightened by editing or cropping the unnecessary areas from the edges of a work, after it is completed.
- C. Details, accents and outlines will enhance the dominant area or thing.

Component 8 UNITY: Students will create unity by interrelating the parts of a composition.

Concepts

- A. The parts can be arranged so that movement in the picture space leads the eye around and not out of the picture area.
- B. Parallel edges induce harmony within a composition.
- C. Every major area of a composition should be interesting in itself.
- D. Limited colours and materials tighten a composition.

Component 9 C R A F T S M A N S H I P :

Students will improve compositions by refining, rehearsing and critiquing.

Concepts

- A. Refinement of forms and surface qualities is necessary to give a finished appearance to a composition.
- B. Rehearsals and ongoing critiques should be scheduled to improve composing skills.

EXPRESSION

Component 10 (i) PURPOSE

1: Students will record or document activities, people and discoveries.

Concepts

- A. Everyday activities can be documented visually.
- B. Special events, such as field trips, visits and festive occasions can be recorded visually.
- C. Family groups and people relationships can be recorded visually.
- D. Knowledge gained from study or experimentation can be recorded visually.
- E. Local and provincial events can be recorded visually.

PURPOSE 2: Students will illustrate or tell a story.

Concepts

- A. A narrative can be retold or interpreted visually.
- B. An original story can be created visually.

Component 10 (ii) SUBJECT MATTER:

Students will develop themes, with an emphasis on social concerns, based on:

- A. Plants and animals
- B. Environments and places
- E. People

Component 10 (iii) MEDIA AND TECH-NIQUES:

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

Concepts

A. Drawing

- Continue to explore ways of using drawing materials.
- Place more emphasis on direct observation as a basis for drawing.
- Use drawing to add details, texture or to create pattern including drawing for high detail.
- Make quick sketches.
- Make drawings from a wide range of viewpoints.

B. Painting

- Continue to use paint in combination with other media and techniques.

C. Print Making

D. Sculpture

E. Media

- video movie camera documentation, sequencing animation
- lighting sources such as spotlights, flashlights, overhead projector light, disco lights for experimenting effects
- emerging new technologies, available and applicable.

Employ technological media techniques, practices and capabilities to promote understanding and create designs compositions. Included at this level advancing from previous grades:

- printers to record computer compositions, or direct photography off the screen
- animation techniques available through computer software packages
- lighting techniques for highlighting and creating an effect or mood.

Click on the following link for the Alberta Elementary Art Curriculum in entirety:

http://www.education.gov.ab.ca/k_12/curriculum/bySubject/finearts/elem dram.pdf

Drama

In this project, the children will be:

1. Learning interviewing skills
2. Creating videos
3. Public speaking
4. Retelling cultural stories, myths or legends
5. Creating a web site
6. Create and play an original musical/speaking piece.

These activities address the following skills in the Drama curriculum:

Drama

Social

- understand self
- understand others
- discipline self
- develop acceptance of self/others (tolerance)
- develop appreciation of the work of self and others
- cope with emotional responses

Integrative

- understand and respond to environment
- respect and investigate ideas of others
- role play
- develop a sense of form
- make the abstract concrete
- learn to respond to stimuli; e.g., music, pictures, objects, literature
- cope with emotional responses

CHORAL SPEECH

General Speaking Skills

- develop the following vocal skills:
 - recognize and reproduce the articulated sounds of standard speech
 - speak clearly
 - speak with ease
 - speak expressively
 - speak with energy
 - speak with an appreciation of the flexibility of the voice as an instrument
 - learn concepts of pitch, pace, pause, rate, intensity, volume
- develop the following interpretive skills:
 - communicate the meaning of a piece of literature
 - express mood
 - explore natural rhythm
 - phrase for meaning
 - colour individual words
 - develop skills of presentation by becoming aware of importance of face, voice and body
- develop empathy through experiencing thoughts and feelings of other people and other cultures, as expressed through their stories
- develop language skills through the language processes speaking, listening, writing and reading

Specific Choral Speech Skills

- listen to self and others
- blend the voice with others
- respond to cues given by leader
- speak:
 - in unison

- antiphonally
- cumulatively
- solo lines

STORYTELLING

General Speaking Skills

- develop the following vocal skills:
 - recognize and reproduce the articulated sounds of standard speech
 - speak clearly
 - speak with ease
 - speak expressively
 - speak with energy
 - speak with an appreciation of the flexibility of the voice as an instrument
 - learn concepts of pitch, pace, pause, rate, intensity, volume
- develop the following interpretive skills:
 - communicate the meaning of a piece of literature
 - express mood
 - explore natural rhythm
 - phrase for meaning
 - colour individual words
 - develop skills of presentation by becoming aware of the importance of face, voice and body
- develop appreciation for enjoyment of literature
- develop empathy through experiencing thoughts and feelings of other people and other cultures, as expressed through their stories
- develop language skills through the language processes of speaking, listening, writing and reading

Specific Storytelling Skills

- develop and extend the ability to recall and sequence events
- develop awareness and understanding of differentiation of character within a story
- apply storytelling skills to other areas of study

DRAMATIZATION

- develop role-playing skills:
 - accept role-playing as a positive learning experience
 - take on the attitude of another
 - assume the physical attributes of another
 - emphasize the situation of another
 - use role-playing as a problem-solving tool
- recognize and use dramatic form:
 - appreciate and use the possibilities of a story line in sequence
 - recognize and incorporate structure; i.e., beginning, middle and end
 - respond in language appropriate to different situations
 - recognize dramatic elements; e.g., conflict, tension, resolution, characterization, environment
- develop an appreciation of the art form of acting out literature
- be motivated to extend the dramatization experience into other subject areas

Click on the following link for the elementary curriculum in entirety:

http://www.education.gov.ab.ca/k_12/curriculum/bySubject/finearts/elemdram.pdf

Blackfoot Curriculum

The work highlighted above will meet the standards and expectations of the Blackfoot Curriculum, Grade 4.

Click on the following link for the program in entirety;

http://www.education.gov.ab.ca/k_12/curriculum/bySubject/aborigin/elembk.pdf