Social Studies
A Teacher's Activity Guide for Grade 9
The Roots of Society

September 19

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The Roots of Society

Saskatchewan Education
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Organization of the Activity Guide

The activities in this guide are arranged according to the learning cycle described on page three. Every unit has **activities which help develop an understanding of the main concept** in the unit. Every unit also has **activities which help the students apply the concepts they have learned to historical situations**. The activities in these two categories comprise the core material of the unit, and correlate with the core material outlined in the curriculum guide. In addition to these core activities, some of the units have additional activities which, at the discretion of the teacher, can be used as alternatives to the core activities, for enrichment, or for evaluation.

Teachers are not obligated to use any or all of the activities in this activity guide. The activities are intended to be easily adaptable to the needs of different classrooms. In some cases, the activities as outlined may not be useful, but they may contain valuable resource material which teachers can adapt to their own needs and teaching styles.
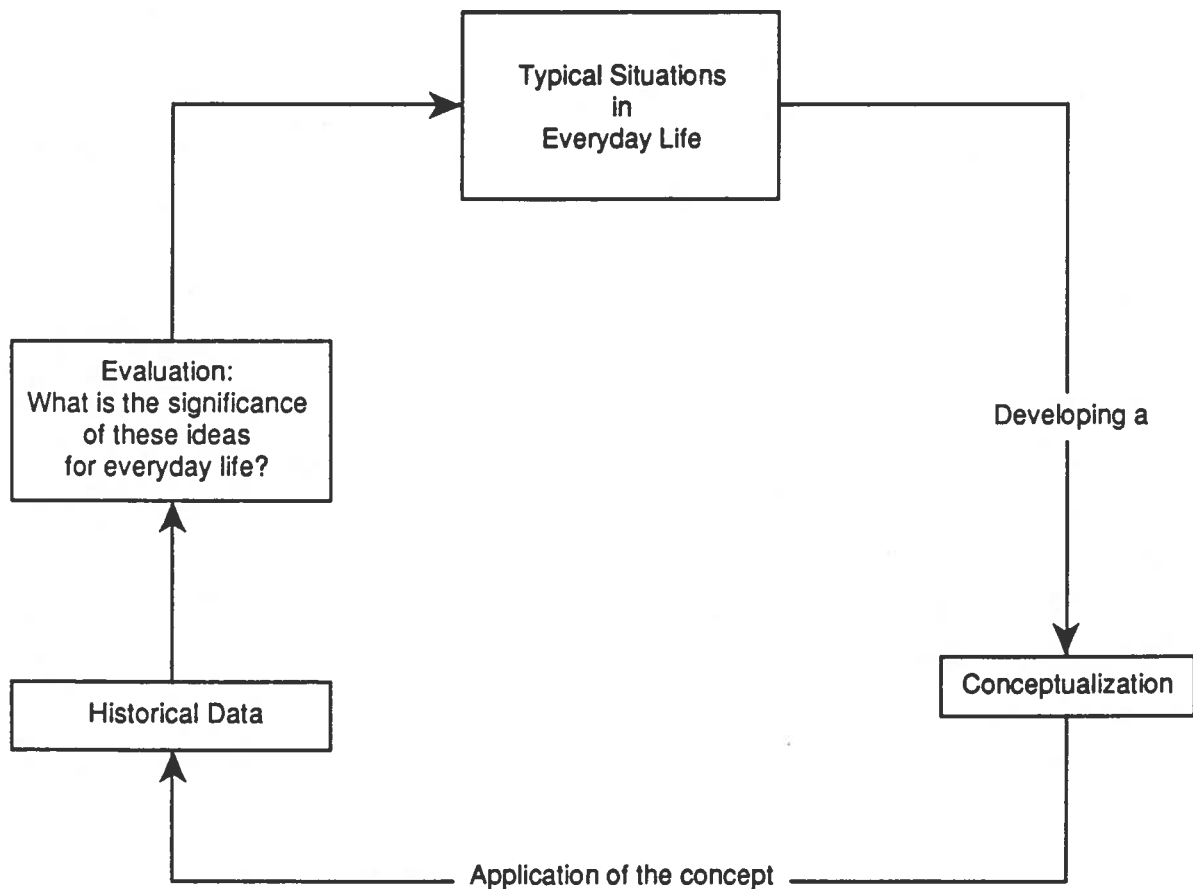
Pagination

In order to make it easier for you to find your way around this document, we have included the unit number along with each page number. Thus, when you see I - 59 you know instantly that you are in unit I, and when you see II - 142 you know instantly that you are in unit II, etc.

Learning Cycle

All of the units in The Roots of Society have been organized according to the learning cycle diagrammed below. Students are always introduced to concepts and skills/abilities using familiar material (concept development). This is done to make it easier for students to concentrate on learning either the concept or the skill. Once this is done, then students are ready to extend their concepts and skills by using them to understand and evaluate the past as a way of better understanding the present and the future (concept application).

The activities in the activity guide are also organized according to this cycle. There will be introductory activities aimed at helping students develop a concept and then there will be activities creating opportunities to apply and evaluate the concepts.

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                    ┌─────────────────────┐
              ─────>│  Typical Situations │─────────────┐
             │      │         in          │             │
             │      │    Everyday Life    │             │
             │      └─────────────────────┘             │
             │                                           │
             │                                    Developing a
             │                                           │
   ┌───────────────────────┐                            │
   │      Evaluation:       │                           │
   │ What is the significance│                          ▼
   │     of these ideas     │                  ┌──────────────────┐
   │   for everyday life?   │                  │ Conceptualization │
   └───────────────────────┘                  └──────────────────┘
             ▲                                           │
   ┌───────────────────────┐                            │
   │    Historical Data    │                            │
   └───────────────────────┘                            │
             ▲                                           │
             └────── Application of the concept ─────────┘
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Unit I
Time

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Activities Which Develop an Understanding of the Concept of Time

In this activity, students explore their own personal and family roots so that they might gain some insight into the heavy influence of past events on their lives. The concept of individual and family roots is then used as an analogy to introduce the concept of societal roots.

In this activity, students explore the many different ways in which time is measured. They are then prepared to examine the two main conceptions of time - cyclical time and linear time.

In this activity, students create a timeline. Then they research a number of major historical events and place them on the timeline. This provides them with a perspective of time and some understanding of the chronological relationship between major historical events.

Activities Which Help the Students Apply the Concepts they have Learned to Historical Situations

This activity introduces students to the concept of making inferences. Students read descriptions of artifacts found in an archaeological dig. Then they use these descriptions to make inferences about the societies which left these artifacts behind.

This is a research activity in which groups of students study various aspects of selected ancient cultures in order to determine how these cultures have influenced Canadian culture.

Additional Activities Which can be Used as Alternatives to the Above Activities, for Enrichment, and for Evaluation

In this activity, students discover that different cultures perceive time in different ways. This is illustrated by case studies of conflicts which occurred when people from different cultures came into contact.

This is an activity in which the skill of essay writing is introduced. The students are asked to write an essay based on a certain aspect of time.

By examining the calendars of several ancient civilizations, students discover that different cultures measure time in different ways.

This is a research activity in which individuals or groups research the earliest civilizations in an attempt to discover how they were similar and how they were different.

This is a very simple activity designed to help students understand the skill of inferring. The students are given a list of artifacts found in an archaeological dig and the inferences made from those artifacts. The students then judge whether or not these inferences are justifiable.

In this activity, students do a mock archaeological dig. This activity demonstrates the techniques used by archaeologists and develops the skill of making an inference.

In this activity, students study the results of a recent archaeological dig in Saskatchewan. Students categorize and classify the evidence found and draw their own conclusions about this early Saskatchewan culture. Then they compare their conclusions with those who participated in the dig.

Core Content

The content and objectives which appear in **highlighted print** should be considered core material.

Suggested Class Time

The Roots of Society

One hour

All people, places and things (events and actions) have sources of origin.

The Concept of Time

Two hours

The concept of time is an attempt to create a context in which humans exist.

Time and Measurement

Two hours

Time as an organizer of events serves a useful social purpose.

Time and Culture

Four hours

Study an ancient civilization (at least one, but not all) from either the ancient Middle East, China, India, and one from ancient North America.

Time and Roots

Four hours

Canada's cultural ties to the Ancient World using the following examples:
• ancient Israel;
• ancient Greece;
• ancient Rome;
• ancient North America.

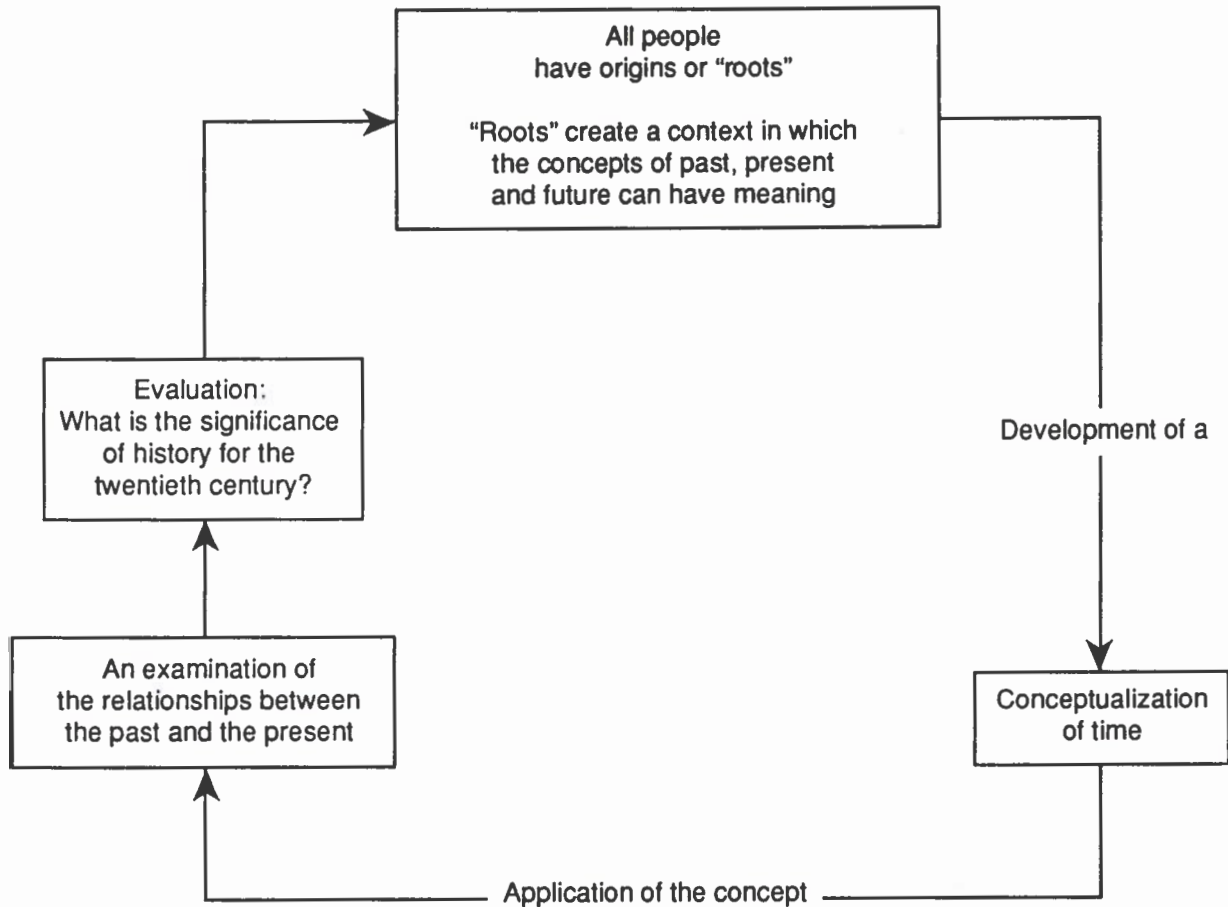## Adaptive Dimension

Six hours

Total Class Time

Nineteen hours

With the remainder of the material not marked core, teachers may choose to work through all, some or none of these items. This material should be seen as an opportunity to individualize instruction for students with different levels of intellectual ability and motivation. They may also choose to substitute locally developed material in optional areas where appropriate. Such material should reflect community interests and must also meet the conceptual, skills, and values objectives.

Learning Cycle

Unit One Time

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                    ┌──────────────────────────────────┐
                    │           All people             │
                    │      have origins or "roots"      │
                    │                                   │
               ────►│   "Roots" create a context in which │────┐
               │    │     the concepts of past, present  │    │
               │    │      and future can have meaning   │    │
               │    └──────────────────────────────────┘    │
               │                                              │
               │                                              │
    ┌────────────────────┐                        Development of a
    │    Evaluation:      │                              │
    │ What is the significance│                          │
    │  of history for the  │                             │
    │  twentieth century?  │                             ▼
    └────────────────────┘                    ┌──────────────────┐
               ▲                               │ Conceptualization │
               │                               │     of time       │
    ┌────────────────────┐                    └──────────────────┘
    │  An examination of  │                              │
    │ the relationships between│                         │
    │ the past and the present│                          │
    └────────────────────┘                               │
               ▲                                          │
               └───── Application of the concept ─────────┘
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The Roots of Society

Activity One

Concepts	Skills	Common Essential Learnings
individual roots	making timelines	personal and social values and skills
societal roots	mapping information	critical and creative thinking
analogy	inferring	numeracy

The purpose of this activity is to introduce the notion that all peoples, places, and things have sources of origins, or roots. To do this, students will look first at their personal history, then at their family roots. The roots of individual students can then serve as an analogy to illustrate how societies also have roots.

Knowledge Objectives

The students will:

- know that the personal history of individuals cannot be fully understood without looking at their family roots;
- know that societies also have roots, and these help us to explain and understand family and personal histories; and,
- understand the meaning of analogy.

Skills Objectives

The students will:

- practise making timelines;
- practise recording a complex web of information;
- practise inferring how the decisions of a person's ancestors affect that person today; and,
- practise using personal experience as a basis for an initial understanding of a concept.

Values Objectives

The students will:

- appreciate that all individuals have a rich and interesting family history; and,
- appreciate the importance to humans of roots as a means of providing a context for the reality in which they live.

Have students draw a timeline and mark on it the significant events in their life e.g. birth, infant dedication or baptism, learning to walk and talk, first day of school, moving to a new location, prizes won, first boy or girl friend, confirmation, etc.

Indicate to students that the life they see mapped out on their timeline has been preceded by a long family history which helps to explain who they are, why they live where they live, why they have certain traditions, etc.

- Have them trace this family history to their grandparents or even their great grandparents, if possible.
- Once again, have them mark significant events such as when their parents met, when they married, etc.
- Do the students know why and how their parents met? Did they live in the same town? If so, what brought them to that town? Did they meet in college? Do they know the circumstances which brought their grandparents together?
- If they are non-indigenous peoples, do they know when their ancestors immigrated to the new world? Do they know why their ancestors immigrated?

Help students to see why the answers to these questions are so vital for understanding their own personal history. Then have them infer how these decisions, long since made, have impacted their own lives.

- Ask them to imagine how their life might be different (or if they would even exist!) if their ancestors had not immigrated.
- Ask indigenous peoples how their lives might have been different if Europeans had never emigrated to North America.

Encourage students to use their imagination and creativity to map their family histories; any method of mapping or recording the information is valid.

- Many students will have a very sketchy picture of their family history; this class may encourage them to find out more about their personal roots.

When students have explored some of their personal roots, indicate to them that just as they as individuals have roots, so societies have roots.

- The roots of society help to explain why societies have certain characteristics which distinguish them.
- At this point you may wish to introduce the concept of **analogy**, and indicate to them that their personal roots are an analogy for societal roots.
- Just as we cannot really understand an individual without knowing something of his or her roots, so we cannot really understand societies without knowing something about their roots.

The Concept of Time

Activity Two

Concepts	Skills	Common Essential Learnings
time	categorizing	critical and creative thinking
linear time	classifying	numeracy
cyclical time	inferring	

This activity introduces the concept of time. Students look at different words used for time and attempt to classify them. Then two main analogies for understanding time - the cyclical and the linear - are discovered and explored.

Knowledge Objectives

The students will:

- know that time can be described and measured in two main ways;
- know that the way time is measured depends on the purpose of the person doing the measuring; and,
- know that time is an attempt to create a context in which humans exist.

Skills Objectives

The students will:

- practise categorizing and classifying such time concepts as day, season, decade, century, B.C., A.D., ancient, modern, etc.; and,
- learn to make generalizations from the data which has been classified.

Ask the students to imagine a world without the concept of time in it. Challenge them to decide how they would go about inventing the concept and coming up with some system of keeping track of (measuring) the passage of time if there were no clocks or calendars to rely on.
- What in nature could be used as a time measure?
- Discuss with the students how we use regular cycles in nature to measure the passage of time.

Once the students have come up with some ideas, discuss with them some of the advantages and some of the limitations to their approaches. How well would their system work for:
- extremely short periods of time?
- ordinary day to day activities?
- very long periods in the past?
- setting dates in the future?

Have the students brainstorm all of the different ways and devices which people have created to measure time. Use the questions above as a way of classifying these ideas:
• short periods - atomic clocks which measure millionths of a second, stop watches etc.;
• day to day - keeping track of the sun, sun clocks etc.; and,
• long periods - crossing of days, idea of week, month, calendars etc.

Discuss with the students the two basic sub-divisions of time: cyclical and linear.

• Cyclical time is an attempt to live in harmony with the natural environment e.g.:
  • waking and sleeping
  • agricultural patterns
  • holiday patterns (Christmas was originally a pagan holiday to celebrate the return of longer days); and,
  • hunting patterns in traditional societies

• Linear time is used to organize the past at the personal level, the historical level, and the geological level.

Ask the class as a whole to suggest as many words that are used to measure time as they can. Write these words on the board as they are suggested. Students will probably suggest words such as day, minute, month, year, second. In order to stimulate student thought you might ask some of the following questions.
• Can you suggest words which are used to measure longer periods of time? (eons, ages, decades, centuries, epochs, eras, millennia)
• Can you suggest words which measure people's lives or the time cycles in nature? (generations, seasons, old age, infancy, birthday, holiday, celebrations etc.)

Note: There is a student information sheet with a list of time words you may use at this point.

Once the students have a number of words on the board, have them match up the words that go together. They can do this as a large group, or they can be divided into smaller groups. Explain to students that this process is called classifying. Make it clear to students that there is usually more than one way to classify data and that they might want to try several different ways before finalizing their classifications. The following page contains an example of a classification system.

Various time words	Cyclical concept of time	Linear concept of time	Reasons for the classification
minute		X	Breaking time into pieces is a linear, analytical idea.
day	X		A day is a natural rhythm of nature.
year	X	X	A year can be both.
season	X		This is a cyclical rhythm of nature.
century		X	One hundred is an arbitrary number based on our number system.
etc.			

As a conclusion to this activity, discuss with students why we use both cyclical and linear patterns to measure time.
• Have them speculate on how these two analogies may have arisen.
• Ask them why we measure time.
• Summarize with them that the concept of time is used to organize people's lives, and create a context in which humans exist.

Assessment Strategies

Knowledge

• Have the students write a short paper in which they summarize how the concept of time is used to organize people's lives.
• Activities six and seven provide more information which could serve as an instrument for assessing students' conception of time.

Skills

• The following sample checklist on classifying could be used to see if students understand and can use the ability of classification.

Questions to Appraise Classifying

- Is there a clear purpose for grouping?
- Have likenesses and differences among items been identified?
- Have characteristics for grouping been defined?
- Has a name (concept) been stated for each group?
- Have mutually exclusive groups been defined?
- Does the classification system allow the placement of all items into one category or another?

Adapted from **A Comprehensive Framework For Instructional Objectives**, Hannah and Michaelis.

Student Information Sheet

Time

millennia	day	birthday
spring	minute	holiday
generations	eras	history
seasons	old age	celebrations
clocks	summer	eons
month	infancy	young
beginning	calendars	infinity
year	death	winter
second	atomic clocks	decades
epochs	date	centuries
term	synchronize	generation
old	vacation	traditional
schedule	timetable	birth
new year	lifetime	beginning
moon	week	long time
sun rise	harvest	spring planting
timeline	eternity	new moon

Time and Measurement

Activity Three

Concepts	Skills	Common Essential Learnings
linear time	inferring	critical and creative thinking
cyclical time	organizing data	numeracy
personal time	researching	independent learning
historical time		communication
geological time		

This activity is intended to give students a perspective on time and the sequence in which various historical events have occurred. The timeline which is developed during this activity will be used throughout the year's work and will serve as a unifying element for all five units of study.

Knowledge Objectives

The students will:

• demonstrate an awareness of the sequence in which major historical events occurred;
• be able to state the reasons why certain historical events are considered important; and,
• know that models have been developed to conceptualize and structure time.

Skills Objectives

The students will:

• be able to draw up a brief plan for a simple group research project;
• be able to carry out a simple group research project; and,
• practise making generalizations and drawing inferences from dating.

Values Objectives

The students will:

• appreciate that cultural development has been occurring throughout history, is presently occurring, and is a never ending process; and,
• appreciate that different cultures use various starting points and terminology for their calenders.

Students have already looked at time on a personal level in their first activity when they made personal timelines of their life. Now they will look at time on a historical level.

Historical time refers to the period which has elapsed since people first began to keep records of historical events. Historical time is measured in years, decades, centuries and includes social, political and economic events created by people.

Begin this activity by making a large timeline which stretches at least the length of one wall in the classroom. Some teachers use all four walls.

- If you wish to develop a simple measuring system, you could create a timeline either five or 10 metres long.
- The timeline should represent the period 8 000 B.C. to A.D. 2 000. If your timeline is five metres long, each centimetre can equal 20 years. If it is 10 metres long, each centimetre can equal 10 years. Mark every 50 years on the timeline and label appropriately. Use a red pen to mark the division from B.C. to A.D.
- This is a good numerical exercise for your students to work out.
- Another challenge would be to have them make a timeline to represent the age of the universe. Have them mark off some of the major divisions on a sidewalk outside of the school.

Discuss with the students the meanings of the abbreviations B.C. and A.D.

- Dates **before** Christ's birth are listed as B.C. or **before Christ**. Before the birth of Christ the years are counted backward. For dates before the birth of Christ the numbers get bigger as you go farther back in time.
- Dates **after** the year of Christ's birth are listed as A.D. or *anno Domini* (in the year of our Lord).

Make sure that students understand that the Gregorian calendar is the official calendar used in North America and much of the rest of the world. This calendar is based on the year Jesus Christ was born. Various cultural and religious groups use different calendars.

Students are often confused by the fact that according to the Gregorian calendar this is the 20th century, yet the dates are in the 1900's.

- Explain that a century encompasses 100 years (i.e.. from 1801-1900, from 1901-2000). It will be incorrect to celebrate the beginning of the twenty-first century in the year 2000, because it does not begin until the year 2001. The year 2000 is the last year of the twentieth century.
- Stress the fact that when referring to a time period by the term "century" we must always use one number ahead of the "hundreds" i.e. 1756 is in the eighteenth century, 1986 is in the twentieth century, etc.
- Use examples from the first 100 years A.D. to clarify the concept (e.g. The year A.D. 35 is in the first century). Note that there is no year 0; the first century began in A.D. 1.

When the timeline is complete, indicate to the students that their next project will involve identifying major historical events.

- Ask students to give you a few examples of major historical events. If they think only of political events, direct them to think of some scientific and religious events as well.
- Then ask the class to identify what the criteria for an important event are. Some possibilities include:
  - it affected many people; and,
  - it changed the course of history.

Divide the class into groups of three to five students. Tell students that each group must locate five examples of major historical events. For each event, students must identify the place where the event occurred, the culture in which it took place and the name of at least one person involved in the event.

At this point the activity may take a couple of directions: direction A is a game and direction B is a research activity.

Direction A

- Give the students the student information sheet listing very famous historical events at random.
- Explain to the students that their team should find information on as many examples as possible so they can identify where and when it happened, who caused it (person or culture) and why is it significant. Award points according to the following table.

	20th century	1600-1900	900-1599	1-899	B.C.
where it happened	1 point	2 points	3 points	4 points	5 points
when it happened	1 point	2 points	3 points	4 points	5 points
who caused it (person or culture)	1 point	2 points	3 points	4 points	5 points
why is it significant	2 points	4 points	6 points	8 points	10 points

When the students are ready have them sit in groups in a circle and the teacher can announce an event and then ask group #1 whether they have information on the event.

- If the group correctly places the event in time, the members can place the event on the class timeline and earn a point.
- If they are wrong, the next group has a chance at dating the event and earning the point. This would continue either until a group got the date or once around the circle when the teacher could place the event on the timeline.
- When a group correctly dates the event, they can then continue answering the questions and earning points until they are stumped and another group, in turn, takes over.

There will also be a list of very difficult historical events which students can attempt for bonus points. Double the point schedule above for these events.

The groups may suggest historical events not from the list provided they meet the criteria established by the class as being significant in some way.

Set a time limit for the answers in order to maintain the pace of the game.

Once the game is over use the student information sheet as the basis for a class discussion about where the unplaced historical events should go and the relationship between the events.
- For instance, the time distance between the pyramids and Julius Caesar is farther than we are from the Rome of the Caesars.
- Discuss with the students the time gaps on the timeline: what was going on in these periods?

Direction B

The groups should find one major historical event from each of the following periods:
- the twentieth century;
- A.D. 1600 - 1900;
- A.D. 900 - 1600;
- A.D. 1 - 900; and,
- before the birth of Christ.

You may wish to check on the groups to make sure that different groups do not end up doing the same event.

Before students begin work, discuss with them the steps that they might use to do their group assignment.

The **first step** is for the students to locate some possible historical events. Ask students how they can do this. Some possibilities include:
- they might already know about some events;
- they might skim quickly through history books; and,
- they can use the historical events information sheet for ideas.

The **second step** is to decide which of the events identified will be reported to the class. At this stage students can pool their suggestions and as a group select the events.

The **third step** is to find out the exact date, place, and culture for each event and to identify the people associated with the event. Students might work individually or in pairs. Ask students to suggest ways that they might find more detailed information. Some possibilities include:
- looking up the event in the encyclopedia; and,
- looking up the event in a history book, science book, or other book related to the topic.

The **fourth step** in the research assignment is to write a one page summary of each event.

When you give the assignment, have the students write up a work plan outlining the steps that they will follow and identifying those steps which will be done by the whole group and those steps which will be done by individuals.

When students have completed their research, ask a spokesperson from each group to report to the class on the events identified by that group.
• After reporting is completed, students should write the dates of their events on the large timeline on the classroom wall and hand in their work plans and written descriptions of events.

The timeline created in this exercise should be left on the wall throughout the year. The historical events and technological developments that students learn about later in this course can be added to the line.
• Use the completed timeline to discuss with students the possibilities of making generalizations and inferences about the relationships between historical events.

In order for students to see their lifetimes in the perspective of historical time, have them use a coloured pencil or marker to indicate their life span on the timeline. Ask students to calculate what percentage their life-span is of the total amount of time represented by the timeline (14 divided by 10 000).
• In Canada, an average man lives 72 years, an average woman, 79 years.
• Ask students to calculate what percentage an average life-span is of the time represented by the timeline.

Evaluation

Discuss with the students how the timeline illustrates a linear approach to the direction of history.
• Point out that other cultures see history as moving in a cyclical pattern.

Use these ideas to teach students the concept and skill of generalizing.
• Discuss with students how humans make generalizations about complicated ideas such as the course of human history.
• Point out that we use generalizations to make these complicated ideas more meaningful and easier to understand.

At this time you can introduce some other ways that the relationship between time and events has been graphed in order to give meaning to history.
• Some have generalized the passage of historical events through time as either an upward moving or a downward moving spiral.
  • These people are making the generalization that history repeats itself either as it progresses to something better or as it regresses to something worse.
• Others have used the analogy that history is like a pendulum (which on a graph appears as a horizontal line with highs and lows, much like a graphical representation of inflation might look like) to make a somewhat different generalization about the meaning of historical events.

Each of these analogies are generalizations which attempt to give meaning and direction to the course of time and history.
• Each presupposes a certain view of humanity and progress.

Assessment Strategies

Knowledge/Concepts

• Explore the meaning and implications of these analogies with your students.
• Ask the students to think about all the different analogies that could be used to make a generalization about the course of history.
• Then ask the students to consider which generalization best applies to their lives and to the history in which they are living.
• The student might pick one of the analogies above and use it to describe the events of her or his life and then extend it to an analysis of history as they know it so far.
• In this way they are working with generalizations and gaining some practise in testing them with real data.

Skills: Questions to Appraise Generalizing

• Have the essential facts been gathered?
• Have the common or general elements been identified?
• Have the concepts been used to state the general or common idea?
• Have relationships been identified?
• Have facts been identified that support the generalization?
• Has consideration been given to checking the generalization?

Adapted from **A Comprehensive Framework For Instructional Objectives**, Hannah and Michaelis.

Teacher Information Sheet

Chronology of Historical Events

Event and Date	Location and Person or Culture Responsible	Significance of the Event
Homo erectus, 1.6 m years ago (ya)	Africa	emergence of humans
Last ice age, 120000-12000 ya	Northern hemisphere	expansion of human settlement
Cave paintings in Europe, 13000 B.C.	France, Spain	early evidence of humanity
People inhabiting the Americas, 12000 B.C.	North America, early Indian peoples	Discovery and settlement of North America
Beginning of the development of agriculture, 9000 B.C.	Modern Middle East	Beginning of a new way of life
First hunter-gatherer settlement in North America, 4400 B.C.	Illinois, Early Indian peoples	Length of Indian settlement in North America.
Villages established in Egypt, 3800 B.C.	Nile Valley	Settled agricultural life
First form of writing (cuneiform) 3500 B.C.	Tigris and Euphrates Valley, Sumerians	Development of writing
Stonehenge built 3000 to 1500 B.C.	Great Britain, unknown	Indicator of development in society
Pyramids of Giza built 2700 to 2500 B.C.	Egypt, Egyptian pharaohs	One of the ten ancient wonders of the world
Creation of a written law code, 1700 B.C.	Babylon, Hammurabi	First codified set of laws
The Ten Commandments, 1250 B.C.	Sinai Peninsula, Moses	An important root of Canadian society
Destruction of Babylon, 700 B.C.	In modern Iraq, Assyrians	One of the ten ancient wonders of the world
Chinese philosophy, 550 B.C.	China, Writings of Confucius	Establishment of a long lasting philosophy
Roman republic, established 509 B.C.	In modern Italy, Romans	Beginning of Rome
Creation of the Acropolis, the Parthenon, etc., 450 B.C.	Greece, Age of Pericles	Flowering of Greek civilization
Conquest of Persian Empire, 330 B.C.	Alexander the Great	Beginning of the dominance of Europe
Rise of Mayan Empire, 250 B.C.	Central America, Mayans	Example of the rise of civilization in the Americas
Building of the Great Wall of China, 200 B.C.	China, Ch'in Emperors	One of the ten wonders of the Ancient World
Rome conquers Great Britain, 55 B.C.	Roman Empire, Julius Caesar	Spread of Rome's influence
First Roman Emperor, 27 B.C.	Rome, Augustus	Beginning of the Roman empire

The Birth of Christ, ca. A.D. 4	West Bank of Jordan River, (disputed territory)	Beginning of Christianity
Invention of paper, A.D. 105	China, the Chinese	Made printing possible; introduced to Europe in 1150
Rome, A.D. 150	Rome at its greatest extent and power	Spread of Roman influence
German invasions, A.D. 400	Europe, German people	Fall of the Western Roman Empire
Rise of the Muslim faith, A.D. 622	Middle East, Muhammad	Creation of a major religion
Invention of gunpowder for fireworks, 7th century A.D.	China, the Chinese	Changed warfare; introduced to Europe in 13th century
Invention of movable print, 1041	China, an unnamed artisan	Made printing presses possible
The Crusades, 11th to 13th centuries	Europe and the Middle East	Exchange of ideas between Europe and the East
Discovery of magnetism, 240 B.C. and invention of the compass, 1125 A.D.	China, the Chinese The Arabs?	Made long distance navigation over water possible
Invention of the foot stirrup, ? A.D.	China, the Chinese	Made armoured feudal knights into effective fighters
Invention of the horse collar, ? A.D.	China, the Chinese	Allowed horses to work harder, and thus increased food supply
Norman conquest of England	Normans, William the Conqueror	Influenced the development of the English
Magna Carta, 1215	England, Barons and King John	A step toward establishing rule of law rather than rule by divine right
Explorations of Marco Polo, 1271-75	Venice to China, Marco Polo	Wrote a book which caused Europeans to become more interested in other lands
The Great Plague, early to mid 14th century	China, Europe	Caused an enormous decline in population
Hundred Years' War, 1337-1453	French and English, Joan of Arc	Marked the end of chivalry
Development of the printing press, 1456	Germany, Gutenberg	Wide distribution of books such as the bible
Aztec Civilization flourished, 1438-1532	Peru	Built a civilization in South America
European discovery of the Americas, 1492	Spanish, Columbus	Settlement of North and South America
Reformation, 1517	Germany, Luther	Establishment of Protestantism
The English Reformation, 1534	Britain, Henry VIII	Establishment of the Church of England and English Protestantism
Use of the telescope for astronomy, 1630	Italy, Galileo	Development of the Scientific Method
Charles I beheaded, 1649	Britain, Charles I and Cromwell	Part of the evolution of democracy

The Industrial Revolution, 1770	Great Britain	Vast increase in production of goods
Thirteen Colonies declare independence, 1776	North America, American colonists	Creation of the United States of America
Battle of Waterloo, 1815	Belgium, Napoleon	Defeat of a dictator
The development of railroads, 1820's	Great Britain	Made transportation faster and cheaper
The American Civil War, 1861-65	United States, Lincoln	Freeing of the slaves
The creation of a German empire, 1867	Germany, Bismarck	The creation of a powerful state
The Confederation of Canada, 1867	Canada, J.A. Macdonald	The creation of our country
Suez Canal completed, 1869	French, Ferdinand de Lesseps	Shortened trade routes to the Middle East
Invention of the telephone, 1876	Canada, Alexander Graham Bell	Revolutionized communication
Invention of the electric light bulb, 1879	United States, Edison	Electricity replaced gas lighting
Invention of the automobile, 1876	Germany, Gotlieb Daimler and Karl Benz	Revolutionized personal transport
Invention of radio, 1895	Italy, Marconi	Revolutionized communications and the media
Invention of the airplane, 1903	U.S., Wright brothers	Made heavier than air flight possible
World War I, 1914-18	Most European countries, Canada, the U.S., etc.	Massive social change
Women received the right to vote, early 20th century	Canada and most other democracies, many women such as Pankhurst	A step in the struggle for equality for women
The Russian revolution, 1917	Russia, Lenin	Establishment of a communist state
The Great Depression, 1929	World wide	Massive social change
Nazis take charge of Germany, 1933	Germany, Hitler	One of the key factors which led to World War II
Japanese attack on Pearl Harbour, 1941	U.S. and Japan	American entry into W.W. II
First use of atomic weapons, 1945	U.S., Truman	End of W.W. II, beginning of nuclear age
The United Nations established, 1945	Many countries	Establishment of a new world order
The Chinese communist revolution, 1949	China, Mao Zedong	Establishment of a second major communist state
Vietnam war begins, 1957	Vietnam, U.S.	Major impact on U.S. in 1960's, beginning of the hippie era
U.S. astronauts land on moon, 1969	U.S., Armstrong	A milestone in space exploration

Student Information Sheet

Historical Events Game

Rules of the Game:

Using the criteria you have developed in class, decide what are the five most important events from the list on the next page.

You will get points by being able to provide information about the five events you have picked.

The more distant in the past the more points you receive.

- where it happened;
- when it happened;
- who caused it (a person or culture); and,
- why is it significant?

You may add historical events to this list provided they meet the criteria you have established for an historic event to be considered important. They receive points according to the schedule above.

On the second page, there is a list of really difficult historical events. If you can find the basic information about them, they will earn double the points in the schedule above.

Playing the Game:

When you are ready, you will sit in groups in a circle and the teacher will choose an event and then ask group #1 whether they have information on the event.
- If that group can correctly place the event in time, the members can place the event on the class timeline and earn points.
- If they are wrong, the next group has a chance at dating the event and earning the points.
- This will continue until a group either gets the date or all the groups have had a chance. The teacher then places the event on the timeline and earns the points.
- When a group correctly dates the event, they can then continue answering the questions and earning points until they are stumped and another group, in turn, takes over.

Groups may suggest historical events not from the list provided they meet the criteria established by the class as being significant in some way.
- Points will be earned in the same way as the other events.

There will be a time limit for the game and for the answers.

Student Information Sheet

Historical Events

Destruction of Babylon
Hitler
Parthenon
Alexander the Great
Jesus Christ
Alexander Graham Bell
Barbarian invasions
Oliver Cromwell
Napoleon
The Hundred Years' War
Incas
Charles I
Thirteen Colonies
First known form of writing
American Civil War
Thomas Edison
Invention of the compass
The Great Plague
Lenin
Great Wall of China
Henry VIII
Mao Zedong
William the Conqueror

Suez Canal
Magna Carta
Julius Caesar
gunpowder
Spartans
Neil Armstrong
Aztecs
Cave paintings at Lascaux
and Altamira
Augustus
Development of railroads
Mohammed
Vietnam
Gutenberg
Battle of Waterloo
People first inhabiting the
Americas
Galileo
United Nations
Luther
Bismarck
Suffragettes
Industrial Revolution

Pyramids
Moses
Marconi
Crusades
Hiroshima
Stonehenge
Roman Empire
Marco Polo
Founding of Rome
Joan of Arc
Lincoln
Beginning of agriculture
Columbus
Invention of the automobile
Hammurabi
Pearl Harbour
Last ice age
Confucius
Mayan Empire
World War I
John A. Macdonald
Wright Brothers
The Great Depression

Student Information Sheet

Historical Events

The list below contains events which are important, but little is known about them. If you can identify information about any of these collect double your points.

invention of the horse collar	first known hunter-gatherer settlement in North America	invention of the foot stirrup
homo erectus		invention of movable print
invention of paper	discovery of magnetism	farming villages established in Egypt
Pericles	Abigail Adams	

Teacher Information Sheet

Group Work Skills

The following information may prove useful to you.

The skills used in group work can be divided into two categories: Those which help get the job done and those which help students get along together.

Skills Which Help Get the Job Done

- initiating activity - arousing the interest of other group members, suggesting courses of action that the group might follow, suggesting new directions if the group gets bogged down

- giving information - giving factual data to the group

- giving opinion - giving a personal opinion on a topic to the group

- evaluating - determining whether or not a particular idea will work, assessing whether or not certain ideas are contradictory

- decision-making - encouraging the group to make a decision

- keeping on track - keeping the group on the job at hand, deflecting irrelevant ideas, maintaining standards, setting an agenda and seeing that it is followed

- recording - writing down the ideas expressed by the group

Skills Which Help Students Get Along Together

- encouraging - encouraging various members of the group to speak up, to give their own ideas or opinions on the topic under discussion

- supporting - agreeing with ideas and suggestions offered by other group members

- harmonizing - relieving group tension by making jokes about ideas or problems which might otherwise create conflict between group members

- mediating - trying to get people with different points of view to compromise or agree to an alternative solution

Time and Culture

Activity Four

Concepts	Skills	Common Essential Learnings
archaeological techniques	inferring	critical and creative thinking
artifacts	generalizing	technological literacy
dating	organizing data	communication
	hypothesizing	numeracy

This activity gives students practice in making inferences based on archaeological facts. They are given a list of artifacts found in a Tell at Ur, and they are asked to use the knowledge they have to make inferences about the various cultures which inhabited Ur over many centuries.

Knowledge Objectives

The students will:

- know what archaeology is and why it is useful;
- know the importance of dating techniques;
- understand the careful procedures used in an archaeological dig in order to protect the site and preserve the artifacts;
- understand that archaeologists need to make inferences about societies based on the artifacts associated with those societies; and,
- understand the speculative nature of archaeological conclusions.

Skills Objectives

The students will:

- practise distinguishing facts from opinions;
- practise making generalizations;
- learn to interpret archaeological artifacts;
- learn to make inferences based on facts; and,
- learn to share and debate different inferences and interpretations with other members of a group.

Values Objectives

The students will:

- appreciate that art, architecture, and the everyday items of a society tell something about that society's values;
- appreciate the sacred significance of artifacts for some cultures; and,
- appreciate the importance of responding to the give and take of debate in an honest and respectful manner.

Note: The information on the sheets included with this activity is based on actual historical artifacts found in digs of cities from the Sumerian culture. The artifacts are accurately dated and are an attempt to be representative of what might be found in an archaeological dig. It should be noted that the site of Ur was chosen arbitrarily as an example and that the artifacts found on the sheets did not all come from Ur. In a number of instances a plan of a building was substituted for an artifact because it was felt that this would better help students conceptualize the level of organization needed to administer that civilization.

Begin by explaining to students that there are three major ways that we learn about the past.
- written records left behind from earlier times or other cultures - written records can be on stone, parchment, leather or other materials as well as on paper.
- oral records - some cultures keep their history alive by passing it along through stories from one generation to the next.
- material remains - the remains left behind by earlier peoples: skeletons, animal bones, tools and weapons, fragments of pottery, jewellery and clothing, ruins of buildings.

The Purpose of Archaeology

Explain to students that archaeologists study the material remains left behind by other cultures. In this activity they will learn about the sorts of things archaeologists discover and how they interpret their findings.

The Skill of Inferring

In order to help students distinguish a fact from an inference and to help them develop the skill of inferring, create a "mystery locker."

Put the following items in a cardboard box:
- movie ticket stubs;
- birthday card wishing the recipient a happy 14th birthday;
- school work which has been assigned a high grade;
- miscellaneous candy or fast food wrappers;
- fingernail polish;
- grade nine report card with good grades; and,
- 2 or 3 tapes or C.D.'s by a popular musical group.

Bring the box containing these items into the classroom. Tell the class that these items were taken from a locker in the school.
- Take each item out of the box and describe it to the class (or have volunteer students do this).
- Then ask the class to identify a few facts about the items in the locker.
- Write these facts on the board as they are suggested. Some possible facts are:
  - locker has fingernail polish;
  - report card has good grades; and,
  - junk food wrappers in locker.

Then explain to the students that one way of creating inferences is to learn to ask questions of the facts you have collected.
- There are six basic questions that can be asked: who, what, when, where, why, and how.

Facts	Questions
locker has fingernail polish	• Why does the locker have fingernail polish in it? • What kind of a person uses fingernail polish?
report card has good grades	• Who would likely leave their report card in the locker? • What kind of person gets good grades on a report card?
junk food wrappers in locker	• Whose junk food wrappers would these likely be? • Why would someone leave junk food wrappers in his or her locker? • Etc.

The answers you get to these questions will often be the interpretations/generalizations you can draw from the data.

Interpretations/generalizations

- A girl uses the locker.
- She uses fingernail polish.
- She gets good grades.
- She studies hard.
- She likes junk food.
- She's too lazy to take the wrappers to the garbage can.

Then ask the class to identify the inferences which can be made about the owner of the locker on the basis of these facts. Write the inferences on the board as they are suggested in the following manner.

Interpretations/generalizations	Inferences
• A girl uses the locker. • She uses fingernail polish.	She wants to look pretty.
• She gets good grades. • She studies hard.	She wants to be successful.
• She likes junk food. • She's too lazy to take the wrappers to the garbage can.	When she has a chance, she likes to relax and "take it easy".

Then ask the class to work in pairs to list other facts about the locker and to develop inferences about the person who owns the locker.

Make sure that students understand that an inference is a hypothesis - an educated guess; inferences are not facts and there is always the possibility that they are incorrect.
• This can be done by having the groups present and debate with each other their inferences.
• Point out to the students that the test of a good inference is not certainty, but what is probable or likely. (The locker may be a boy's, but given these facts what is the most likely interpretation?)

At the conclusion of this part of the activity explain to the students that they have just finished doing what archaeologists do.
• Archaeologists examine the physical evidence left by earlier cultures and on the basis of that evidence make inferences about the way people in that culture lived.

Beginning the Activity

Now the students are ready to begin the main part of this activity, which can be done either individually or in groups. Note: It would be a good idea for the teacher to walk through the first one or two levels with the entire class.

Distribute the Student Information Sheets entitled **Archaeologist's Notes**.

• These notes contain the facts recorded by an archaeologist studying a Tell at Ur. However, the archaeologist died before she could make inferences about the facts.
• The responsibility of the students will be to determine what inferences can be made with the facts that they have available.
• Note: Be sure to indicate to students that sometimes they will need to make inferences because of the absence, rather than the presence, of particular items.
• Along with the Archaeologist's notes are illustrations of the artifacts she found.
• Teacher Information Sheets give an indication of some of the questions which should be asked and some of the inferences which can be made based on the facts given.

Evaluation:

Now that students have made inferences about the items found in this archaeological dig, they need to make some further generalizations.

Students should be challenged to draw some generalizations about how the past influenced the present and the future at Tell Ur and from that draw some inferences about how the past affects the present and the future in twentieth century Canada.

Assessment Strategies

Knowledge

Students could be asked to create a timeline and based on that write a general history of the flow of events and the movement of cultures into and out of this location. This would also involve some generalizations about each of the cultures who settled there.

Or they could choose one specific level and do a detailed cultural analysis based on the artifacts found on that level and the inferences made about them. This would require the students to make broad generalizations and imaginative, yet realistic, speculations.

Values

At the end of the paper they could use the evaluation issue above as the basis for a conclusion and an application to their lives.

Skills: Questions to Appraise Inferring

- Have the facts and the situation been clarified?
- Has a pertinent generalization been identified?
- Is the extension of what is given reasonable? Does it make sense?
- Can the generalization or premise be used to go beyond the data stated?
- Has the inference been double-checked against what is given?
- Can reasons be stated in support of the inference?

Adapted from **A Comprehensive Framework For Instructional Objectives** Hannah and Michaelis.

Teacher Information Sheet

A Representative Sample

The following pages provide you with some idea of what kinds of questions need to be asked and what kinds of inferences can be drawn from the facts which the archaeologist has catalogued. This sample of what the completed data sheets might look like can serve as a guide for you as you lead the students through this activity.

Students are provided with the same factual information, but it is up to them to ask the appropriate questions and draw possible inferences.

Teacher Information Sheet

Archaeologist's Diagrams and Notes

This is the assignment that is given to the students in their information sheets:

A famous archaeologist was doing excavations on a Tell at Ur. She discovered ten levels and made drawings and recorded the following notes on the artifacts she recovered from those ten levels.

However, before she could draw any inferences or conclusions from her data, she died. It is now left up to you to make inferences based on her facts.

Teacher Information Sheet

Archaeologist's Map of the Area (The Fertile Crescent)
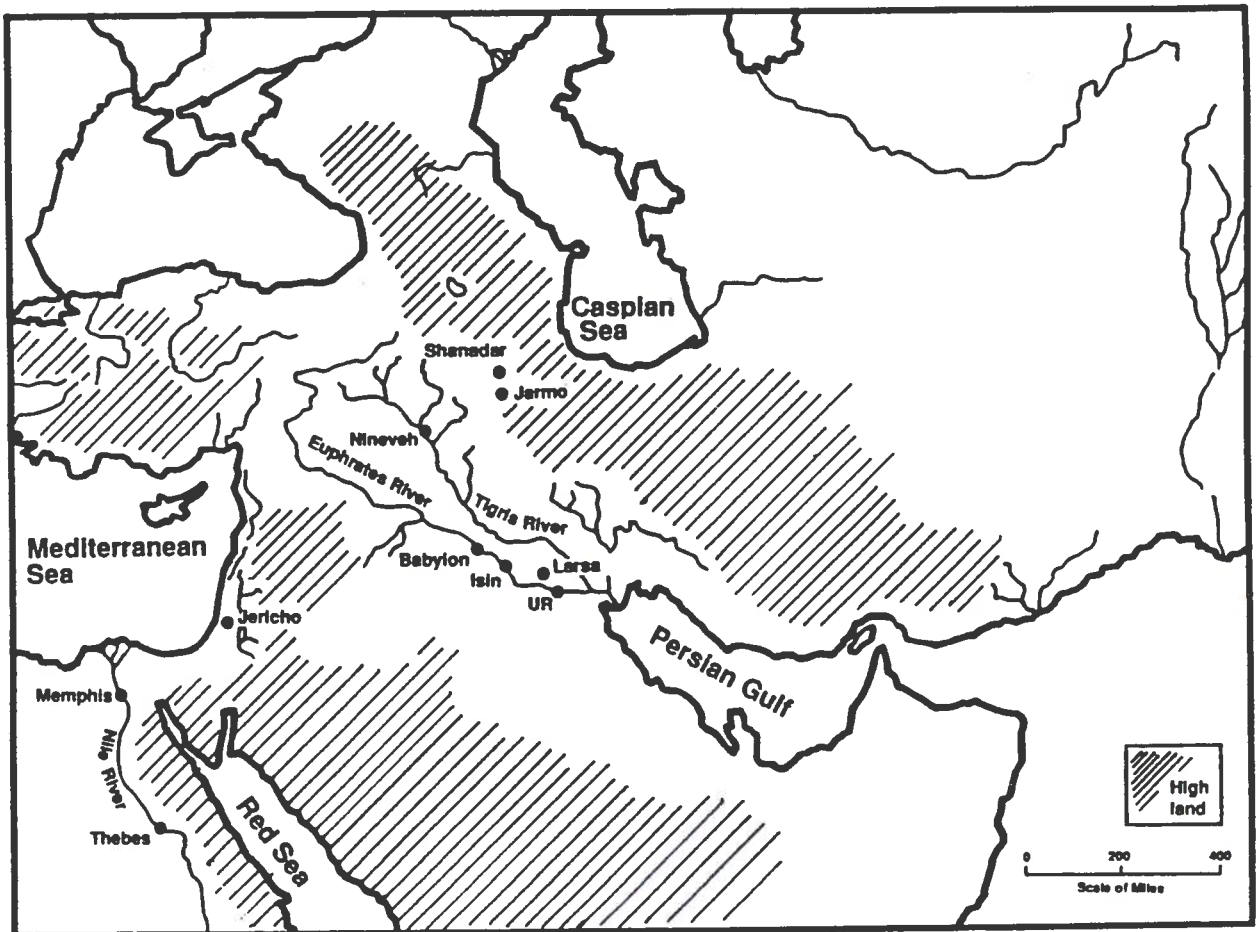
Teacher Information Sheet

Archaeologist's Diagram Showing a Cross Section of the Tell Being Excavated

Note: A tell is just a hill which contains many layers of destroyed ancient cities.

Profile of the Tell at Ur

Levels

1
2
3
4
5
6
7
8
9
10
11
12

30 METRES
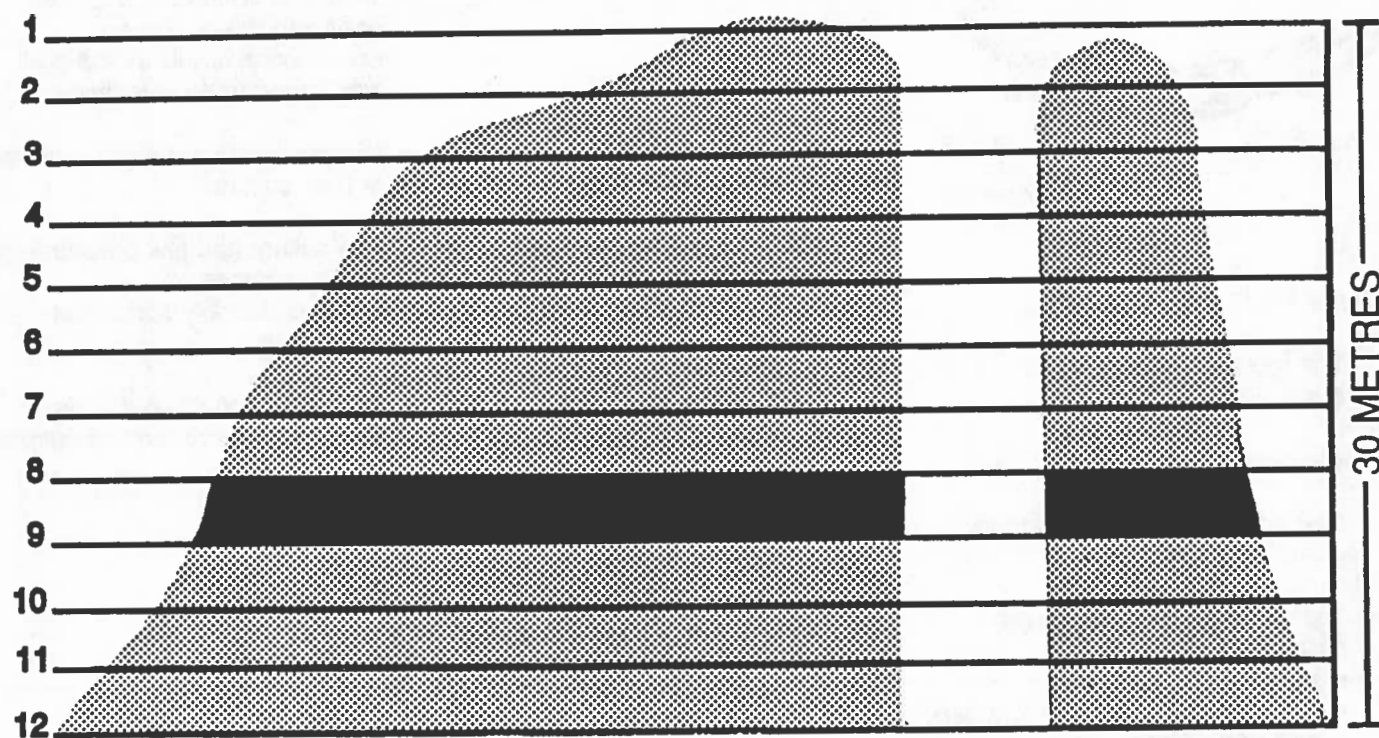
Note: The material in the questions/interpretations column and the inferences column is intended as suggestions and examples only. It is important that the students be challenged to ask the questions of the facts, make the interpretations, and then decide what can be reasonably inferred from the data.

Facts	Questions/Interpretations	Inferences

Level Twelve - Ca. 7200-6800 B.C.

Artifact

Level XII
Date 7000 B.C.

flint

bone

1:8

Flint Sickle

Pieces of Flint
Scale 1:2

Bone Tool

- The tool has a sharp edge.
- It has a sickle shape.

Background Data

- Few artifacts were found at this level.

- There were outlines of simple buildings:
  - traces of fire;
  - samples of early wheat (emmer), and some barley.

- The samples were carbon dated to 7000 B.C. plus or minus 200 years.
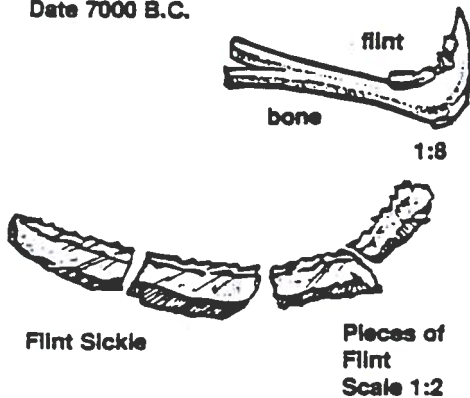
- Why is the tool made of bone?

- What is the purpose of the tool?

- How did the people at this level make their living?

- Were these a nomadic or a settled people?

- Did they still depend on hunting or were they reliant on farming?

- The culture has a need for a cutting tool.
- The culture is pre-metal.

- The shape suggests it would be used for cutting plants.
- Time and creative energy has gone into the design and construction of this indicating it was important to somebody.

- farming must be a significant part of their culture.

- The culture had few possessions which indicates:
  - it was possibly somewhat nomadic.

- The culture could control fire.
- It was a primitive farming culture.

Facts

Level Eleven - Ca. 4000 B.C.

Artifact
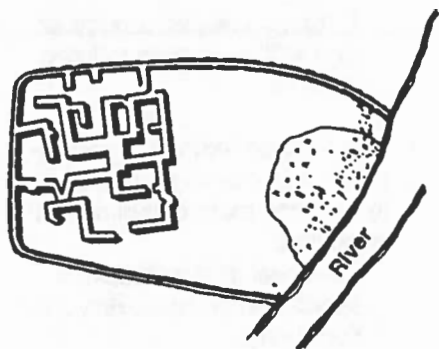
Small Town

- Approximately 10 rooms
- Surrounded by a wall
- Town located by a river

Background Data

- Many bones of goats, sheep, cattle and dogs have been found in what appears to be a refuse area.

Questions/Interpretations

How many people lived in this town?

How many buildings (rooms) are in this town?

If 5 to 10 people lived in each room, how many people would live here?

What is the purpose of the large open space between the buildings and the river?

Why is the town surrounded by a wall?

What might the inhabitants be afraid of?

Why is the refuse area placed where it is?

Why would the town be placed so close to the river?

Why is the wall open to the river?

Inferences

- Estimating five to 10 people per room would suggest a population of 50 to 100 people.

- The bones of animals indicate that these people had domesticated animals.

- The animals were kept inside the walls at night for safety.

- The town inhabitants probably felt threatened by wild animals and/or invaders.

- This might indicate that the people were using the water source for transportation and possibly irrigation.

Facts	Questions/Interpretations	Inferences

Level Ten - Ca. 3500 B.C.

Artifacts

Level X
Date 3500 B.C.
A Commercial Record
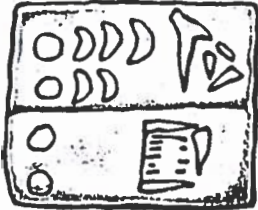
25 Loaves
20 Barley Cakes
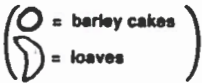
◯ = barley cakes
◖ = loaves

A Commercial Record on a Clay Tablet

- The writing has been translated:
  - 25 loaves; and,
  - 20 barley cakes.

Level X
3500 B.C.
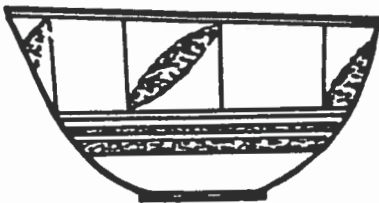
Clay pot

- It is fairly symmetrical.
- It has a geometrical design.

Background Data
- Large clay bins were found with grain still in them.
- The buildings were similar to those of level eleven.

Questions/Interpretations

What do commercial records indicate about a society?

What does the quality of this pot tell us about the handiwork?
- Construction of this pot requires a high degree of skill

What does the handiwork tell us about the level of specialization in the society?
- Indicators of specialization are the baker, literacy, commercial system and the high quality handiwork.

What can we tell from the symmetry of the pot about the way it was made?
- It indicates the possibility of the invention of a potter's wheel.

What can we tell about the culture's understanding of mathematics and geometry?
- It indicates some form of measurement, some understanding of numbers, geometry and a sense of design.

Why would the society have large clay bins? What do they suggest about this society?

What would surpluses of food indicate about the society?
- The leisure to create and appreciate design.

What do similarities in construction suggest?

Inferences

- This society has turned to trade as a way of making a living.
  - It has developed a number and writing system to keep records.

- The records indicate a society which has developed the ability to become more complex and organized.
  - The level of skill indicates specialization has existed for some time.
  - People have had the time to become very good at what they do.

- The most efficient way to make this pot is through the use of the potter's wheel.
  - This is an indicator that people in this culture know about the wheel.

- The design indicates a high enough understanding of mathematics and geometry to use it in a design.

- The bins indicate some kind of organized, central authority.

- A surplus food supply would allow people the opportunity to specialize in things other than food production.

This may have been an era of peace and security which would allow cultural development.

Facts	Questions/Interpretations	Inferences

Level Nine

Background Data

- No artifacts found at this level.

- The site was covered with 30 cm. of river sand and debris.

Why would the successful and thriving town of level ten suddenly disappear?

Was the town destroyed by a flood or was it destroyed before and then the flood came later?

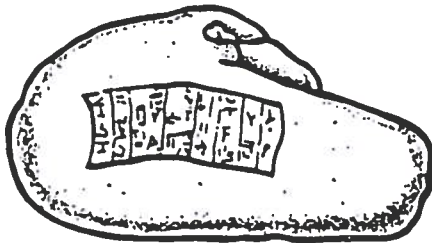A natural disaster such as a flood could easily have wiped out the town.

This area seems prone to warfare, so maybe the site was first destroyed by war.
- People might feel the site is too dangerous to rebuild on.

Facts	Questions/Interpretations	Inferences

Facts

Level Eight - Ca. 3000 B.C.

Artifacts

Carved Stone Bird with Cuneiform Writing

- Translation of the Cuneiform:
  - The mighty King of Ur,
  - King of the Four Quarters
  - confirms five minas
  - for Nana his master

Eye Idol

- The eyes are emphasized.
- A stylized drawing of a gazelle.

Background Data

- The town site has been reoccupied.
- The walls have been extended and thickened.

Questions/Interpretations

What does the bird carving indicate about handiwork?

What does the writing level indicate about the culture?

What does having a king suggest about the society?

What are the Four Quarters?

Nana is whose master?

What or who can be the master of a king?

What are minas?

What does it mean to confirm them?

What is the purpose of the stone bird?

Is this a religious object?
- Why are the eyes emphasized?
- Is this some form of animal worship?

Why are cities continually being built on this site?
- Why is so much time and effort spent on building walls?
- What does this suggest about the city?

Inferences

- The stone carving indicates a highly specialized carver with a high degree of skill.

- The cuneiform shows a society with a highly developed ability to write.

- A king indicates a complex social organization with a class system.

- The four quarters indicates the possibility of an empire which suggests:
  - enough wealth to support the army necessary to conquer the territory.
  - the possibility of trade between cities.
The message seems to suggest that the king is doing something for his master.
- only a god can be the master of a king
  - this may indicate a formal religious organization which reinforces the complex social system
- could refer to giving money as a gift
- the bird is possibly a guardian of society
- this is an indication of the power of religion in the culture

- The site has advantages as a place to live:
  - a secure water source for irrigation; and,
  - a hill is slowly being built here on the plain which can be fortified giving a defensive advantage.

Facts	Questions/Interpretations	Inferences
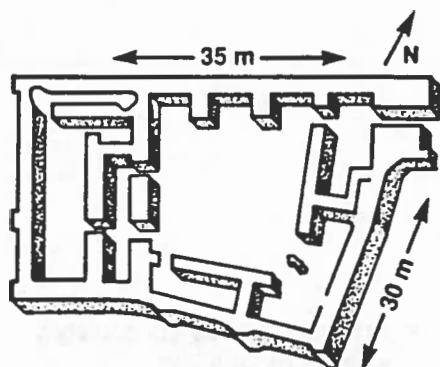
Facts

Level Seven - 2500 B.C.

Artifact

Questions/Interpretations

Why would a society build such a large temple?

What would a large temple suggest about the power of religion within a society?

What would make it possible for a society to afford such a large monument?

Inferences

- It may be an indicator of the power of religion within this society.

- The priesthood is a powerful force within a highly organized society.

- A society would have to be wealthy to have the surplus resources available to build a large temple:
  - surplus man power; and,
  - a large food supply.

Sumerian Temple

- size: 30 metres x 35 metres.

- There is a large open area within the temple.

Why does it need to be so large?

What is the purpose of the open area?

- Control of this wealth indicates the power of religion.
- The building indicates the assembly of large groups of people.

Facts	Questions/Interpretations	Inferences

Facts

Level Seven Continued - 2500 B.C.
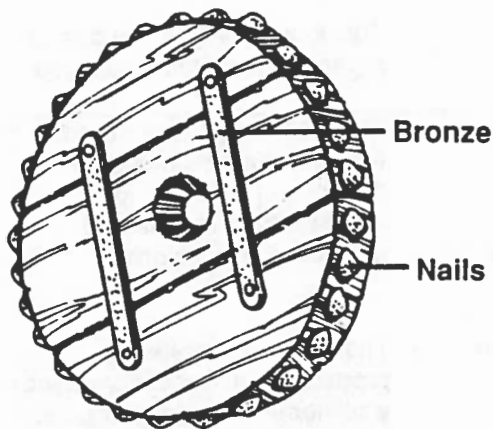
Artifact

Bronze Spear Points

- Bronze is an alloy of copper and tin.
- The spears come in a variety of sizes.
- They have been carefully shaped and styled.
- There is a ridge down the centre to each point.

Questions/Interpretations
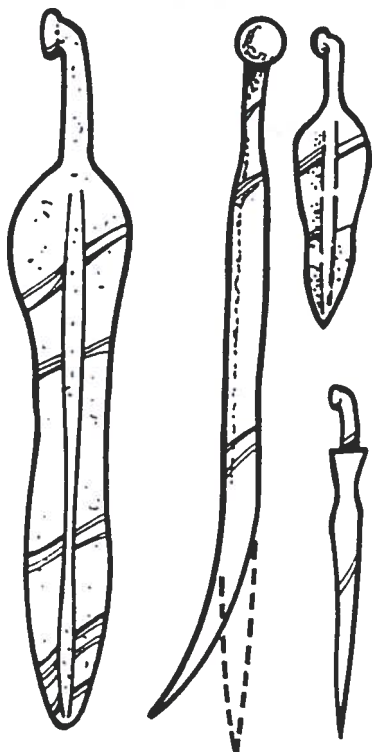
What kind of metal are the spear heads made of?

What is significant about the use of bronze?

Why are there a variety of different kinds of points?

What does the level of handiwork suggest about the society?
What is the purpose of the ridge?

Why did the society have so many spear points around?

Inferences

- Bronze indicates the society's knowledge of alloys.

- Various spear points were made for special purposes by specialists who spent most of their time making spears.

- The spears have been highly refined as a weapon to make them as strong and effective as possible.

- Indicates a society highly concerned about warfare.

Facts	Questions/Interpretations	Inferences

Facts

Level Seven Continued - 2500 B.C.

Artifact

Bronze

Nails

Wooden Wheel
The wheel is made of three planks:
- with a hole through the centre;
- held together by bronze straps; and,
- the edge of the wheel is studded with bronze nails.

Background Data
- This level contains a town site which is extremely large and complex.
- The walls have been extended outward, thickened, and presumably raised.

Level Six - 2200 B.C.

Background Data

- This level has been completely burned out.
- Spears, swords, and skeletons were found everywhere.
- Some of the spears and swords were of a different metal than the bronze.

Questions/Interpretations

Why is the wheel built in this way?
- Why are there no spokes?
- What is the purpose of the studs around the edge?
- What is the purpose of the hole in the centre?

What has made it possible for this city to grow as much as it has?

Why are the walls being strengthened?

Why would a powerful well defended fortress city like this be so totally defeated?

Inferences

- The wheel is reasonably well developed:
- but the absence of spokes indicates wheels are a relatively recent concept;
- the hole indicates the culture has developed some kind of concept of axle; and,
- the studs indicate a need for protection.

- The construction of the wheel indicates it was built to transport goods for long distances.
- The wheel indicates trade has become an important component of the culture.
- It may be an important agricultural and trading centre.

- A wealthier and more powerful society is occupying the area with:
  - a larger population?
  - a better food supply?
  - improvements in agriculture?

- A growing city and strengthened walls are also indicators of prosperity. Because of this prosperity, the inhabitants may feel threatened by envious, powerful neighbours.

- Since the people are gone, the area may have been subjugated and the residents carried off as slaves.

- There may have been a technological reason for the defeat of this city i.e. the city may have been confronted by a technologically superior enemy.

Facts	Questions/Interpretations	Inferences

Facts

Level Five - Ca. 1750 B.C.

Artifacts

Plow and Seeder on a Clay Tablet

- A plow has been invented.
- There is a team of men operating it.
- Draft animals are being used.

A Stone pillar Showing Hammurabi Receiving a Law Code

- Laws are now written down
- Law has been made public

Background Data

- Another city has been built on this site.

Questions/Interpretations

What are the technological developments indicated here?

What effect will they have on society:
- what will draft animals do to productivity?
- what effect will the plow have on productivity?

What level of specialization does this technology indicate?
- Who designed and built:
  - the plow?
  - the harness?
- Who takes care of the animals?
- Who is in charge of the seeding?

Who is Hammurabi?

What is a law code?

What is significant about a law code within a society?

What makes a law acceptable to people within society?

Inferences

- This is a society which has an organized, surplus agriculture.

- The technology increases the amount of work done and provides opportunity for specialization in non-food producing professions.

- The result of increasing productivity in agriculture will be a higher level of specialization:
  - plow makers; and,
  - harness makers.

This level of organization requires laws and administration:
- leaders;
- land ownership system; and,
- class system.

- A complex society needs an organized system of controls.
  - Such a society requires laws to avoid anarchy.

- Society has become literate so that it is possible to write laws.

- Everyone must know what the law is so that it can serve as a warning and as a guide to behaviour.

- The possibility of another war with a new culture moving in.

Facts	Questions/Interpretations	Inferences

Facts

Level Four - Ca. 1300 B.C.

Artifacts

Clay Tablet Showing Hittite Warriors

Background Data

- The walls of this city are made from bricks in a style different from any found before at this site.
- Iron tools and weapons were found at this level.
- No evidence of iron has been found prior to excavating this level.
- Evidence of coinage was found on the site.
- The coins were from different cities.

Questions/Interpretations

What is the significance of building the walls of different brick?

Why would a culture with iron weapons be more successful in warfare than a culture with bronze weapons?

Why are there coins from different cities at this level?

Why are coins so significant in trade?

Why are these societies so warlike?

Inferences

- A new culture brought iron to this area and prevailed because iron is superior to bronze as a weapon.

- Iron is harder than bronze which means that an iron weapon will destroy a bronze weapon giving the swordsman with the iron weapon a distinct advantage.

- Trade and commerce has developed enough to require coins.

- The different coins indicate trade between cities.

Societies that engage in trade often attempt to control markets and trade routes through warfare.

- The social level is now at the empire stage.

Facts	Questions/Interpretations	Inferences

Level Three - Ca. 700 B.C.

Artifact
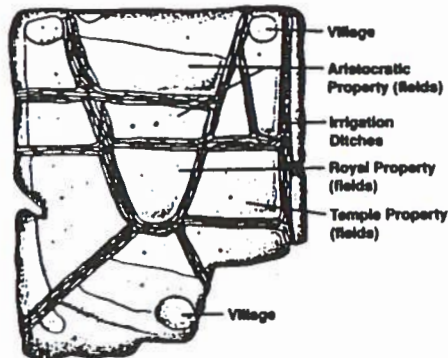
Who dug all the irrigation ditches?

Who is responsible for operating and maintaining them?

Why do the aristocrats, royalty and the priests have so much property?

- The society must have a central planning authority which is responsible for construction and maintenance.

- The ownership of property is an indicator of a class system and the relative power of the king, aristocrats and priests.

- The remaining property is shared among the rest of the people.

A Clay Tablet Showing the Arrangement of Fields and Irrigation Ditches

- The diagram is incomplete.
- There are three to four villages in the map.
- There is an interlocking network of irrigation canals.
- It shows a system of property ownership:
  - aristocratic property;
  - royal property;
  - temple property; and,
  - the property of ordinary people.

Facts	Questions/Interpretations	Inferences

Facts

Level Three Continued - Ca. 700 B.C.
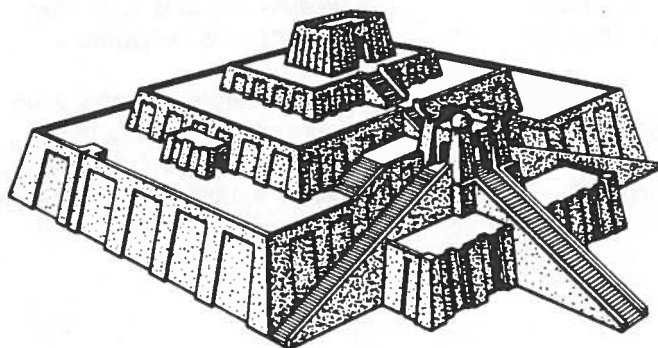
Artifacts

Plan for a Ziggurat
- It is a large several-storied building.
- It has geometric shapes.

Background Data

- The city on this site has been extended in size.
- A large temple called a ziggurat has been built.
- Extensive irrigation is being carried on.

Questions/Interpretations

What is the purpose of this building?

Why would a society build something this size?
- Does it have something to do with the role of religion?

How does this society find the resources (people, food, tools, skills, knowledge) necessary to build this structure?
- What is its attitude to power?

How could a people build something so large without any power tools to do the work?
- Why would ordinary people do the backbreaking work necessary to dig irrigation ditches and to make this building possible?

How big is this building compared to modern buildings?

Inferences

- The building is a temple dedicated to the glory and majesty of a god and the people who represent it on earth.

- The scale of the temple indicates the power of religion within this society.

- It also indicates a high level of architecture, engineering, and social organization.

- The society must be very well disciplined and have a large agricultural surplus to feed the workers necessary to build this structure.

- This is a very dictatorial, hierarchical society which uses religion and massive construction projects as a method of keeping people humble and obedient.

- The work necessary to build an extensive network or irrigation of ditches to produce surplus food requires a high level of organization with the power to enforce its rules.

- The society may have slaves to do this work.

Facts	Questions/Interpretations	Inferences

Level Two - Ca. 300 B.C.

Artifact

	Why would a powerful well defended empire collapse?	• A wealthy city and its trading empire attracts conquerors.
	Why is Alexander called Great?	• The conquerors probably were Greeks who may have been more advanced technologically, and had a more effective military strategy.
	What was the secret of Alexander's military success?	

Coin with the image of Alexander the Great

Background Information

• The city has been sacked and burned.
• Greek coins, helmets and arms were found at this level as well as material left by the defenders of the city.

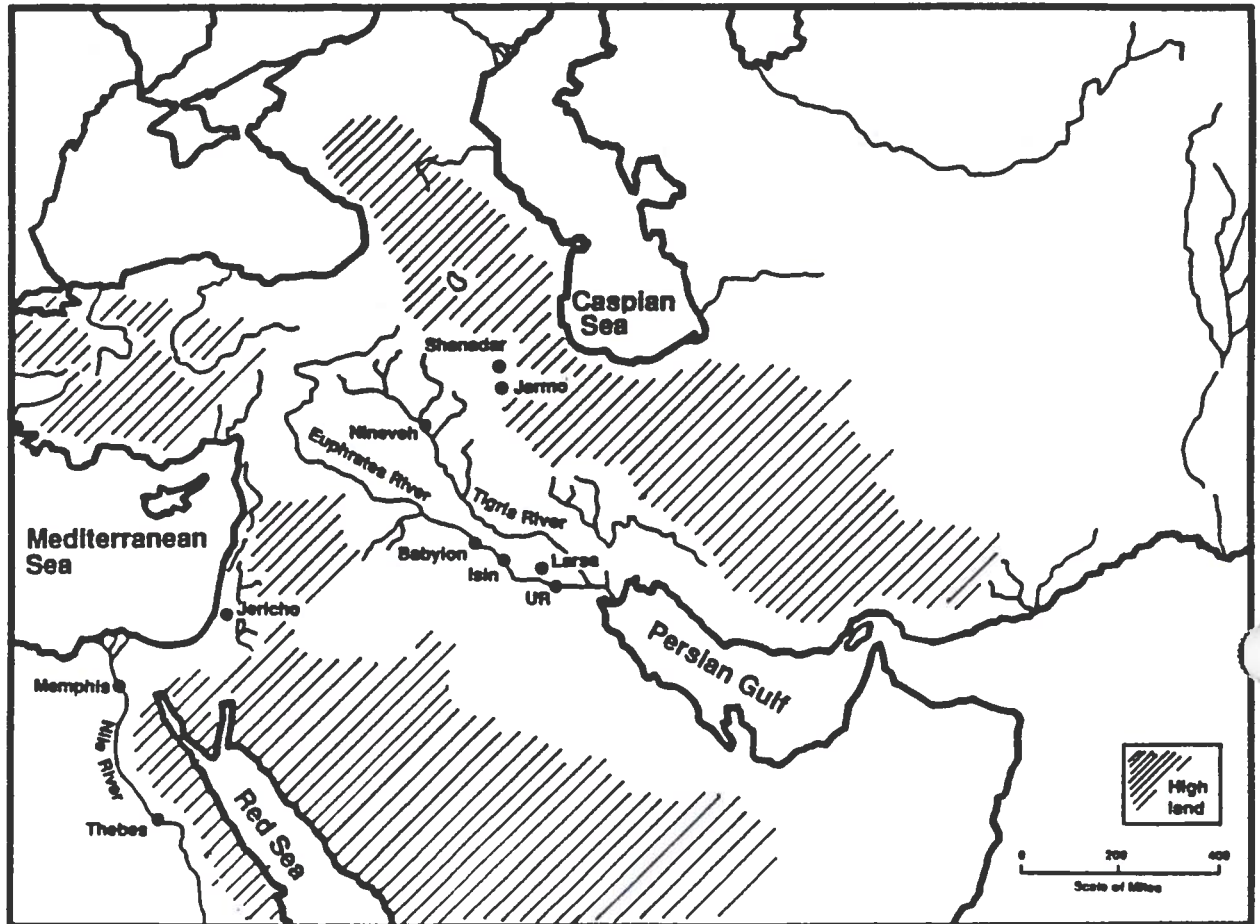| **Level One - present day**	Why would a city that was destroyed and rebuilt many times over thousands of years at some point never be rebuilt?	• This area has been unsettled for a long time.
• No material showing on surface.		• Cities are located in places where they have access to wealth and trade.
• The land is infertile.	What would cause farmland to become infertile?	• Farmland that is over-farmed will lose its fertility. When land is irrigated for a long time it causes the water table to rise, which brings salt to the surface. The result is that the soil is no longer fertile.
• No trace of civilization can be found at the surface level.	What effect would soil infertility have on the location of cities?	
		• Cities without a farm base cannot support themselves so they will decline and eventually disappear.

Archaeologist's Diagrams and Notes

A famous archaeologist was doing excavations on a Tell at Ur. She discovered ten levels and made drawings and recorded the following notes on the artifacts she recovered from those ten levels.

However, before she could draw any inferences or conclusions from her data, she died. It is now left up to you to make inferences based on her facts.
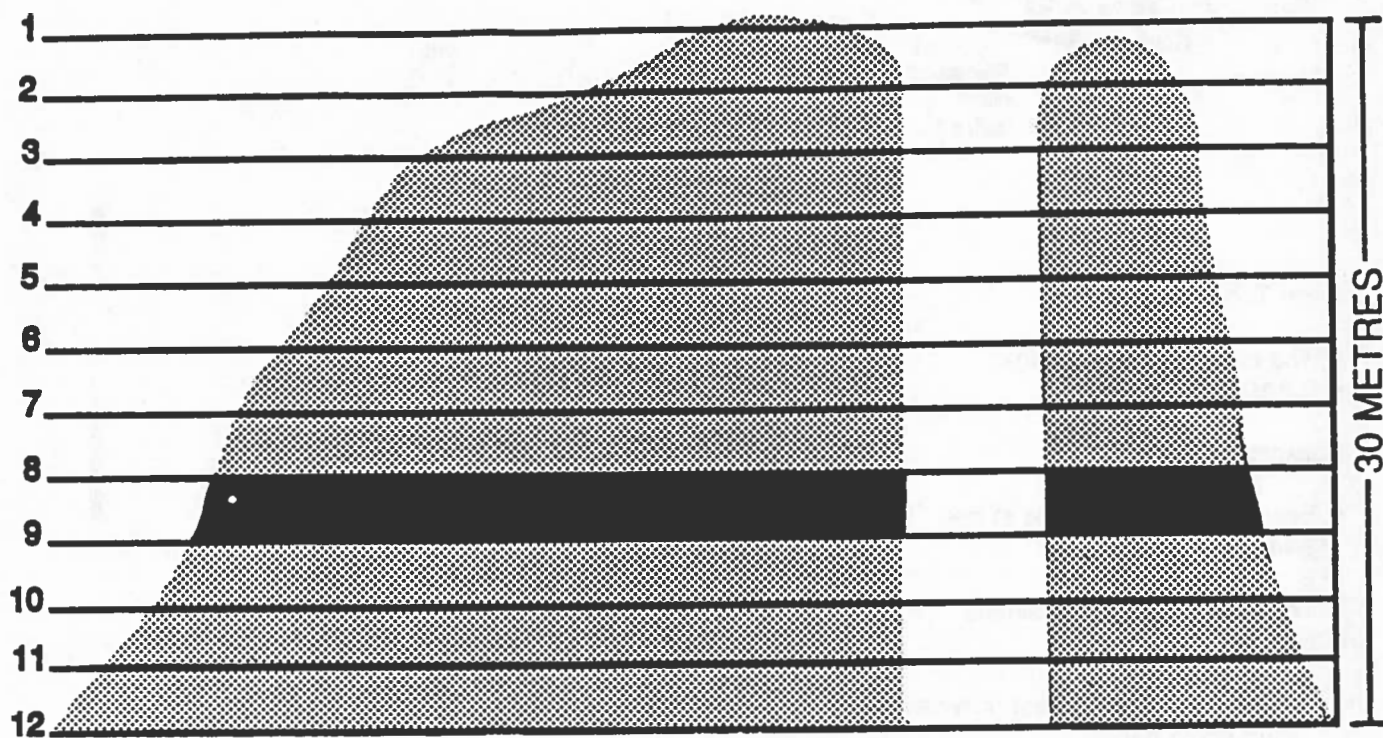
Archaeologist's Map of the Area (The Fertile Crescent)

Student Information Sheet

Archaeologist's Diagram Showing a Cross Section of the Tell Being Excavated

Note: A tell is just a hill which contains many layers of destroyed ancient cities.

Profile of the Tell at Ur

Levels

| Facts | Questions/Interpretations | Inferences |
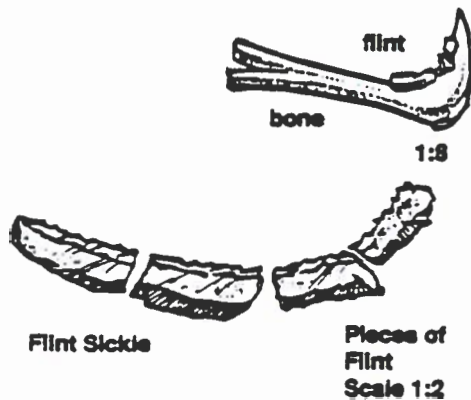
Facts

Level Twelve - Ca. 7200-6800 B.C.

Artifact

flint

bone

1:8

Flint Sickle

Pieces of Flint
Scale 1:2

Bone Tool

- The tool has a sharp edge.
- It has a sickle shape.

Background Data

- Few artifacts were found at this level.

- There were outlines of simple buildings:
  - traces of fire;
  - samples of early wheat (emmer), and some barley.

- The samples were carbon dated to 7000 B.C. plus or minus 200 years.

Facts	Questions/Interpretations	Inferences

Level Eleven - Ca. 4000 B.C.
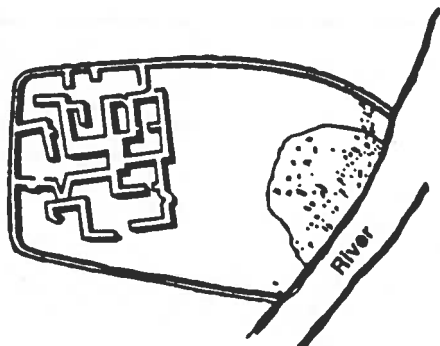
Artifact

Small Town

- Approximately 10 rooms
- Surrounded by a wall
- Town located by a river

Background Data

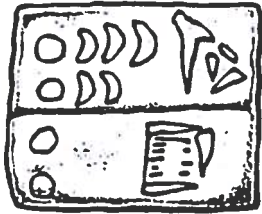- Many bones of goats, sheep, cattle and dogs have been found in what appears to be a refuse area.

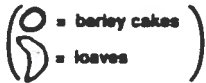| Facts	Questions/Interpretations	Inferences

Level Ten - Ca. 3500 B.C.

Artifacts

25 Loaves
20 Barley Cakes

(O = barley cakes)
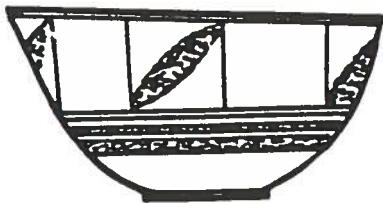(⟩ = loaves)

A Commercial Record on a Clay Tablet

• The writing has been translated:
  • 25 loaves; and,
  • 20 barley cakes.

Clay pot

• It is fairly symmetrical.
• It has a geometrical design.

Background Data
• Large clay bins were found with grain still in them.
• The buildings were similar in construction to those of level eleven.

| **Facts** | **Questions/Interpretations** | **Inferences** |

Level Nine

Background Data

- No artifacts found at this level.

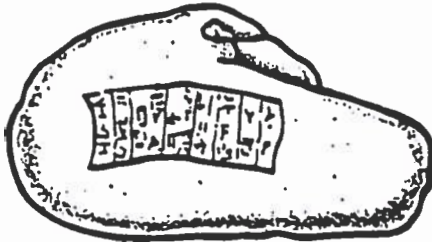- The site was covered with 30 cm.
  of river sand and debris.

Facts	Questions/Interpretations	Inferences

Level Eight - Ca. 3000 B.C.

Artifacts

Carved Stone Bird with Cuneiform Writing

- Translation of the Cuneiform:
  - The mighty King of Ur,
  - King of the Four Quarters
  - confirms five minas
  - for Nana his master

Eye Idol

- The eyes are emphasized.
- A stylized drawing of a gazelle.

Background Data

- The town site has been reoccupied.
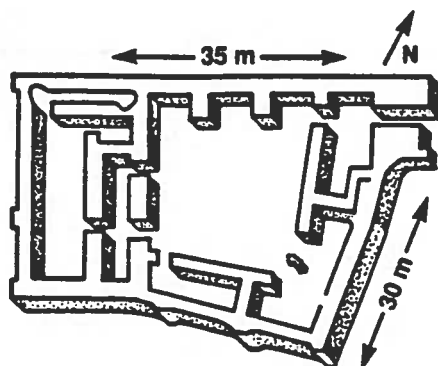- The walls have been extended and thickened.

Level Seven - 2500 B.C.
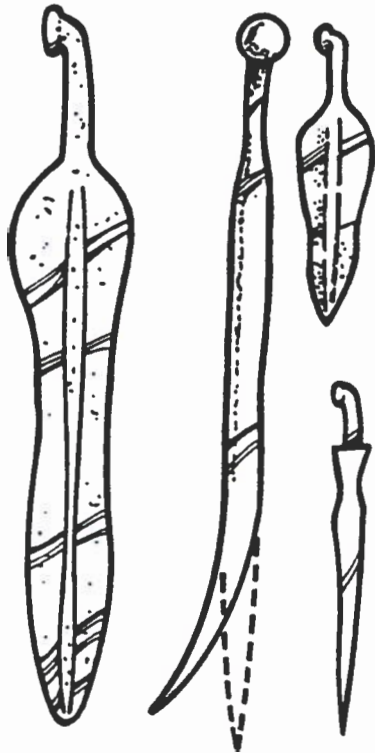
Artifact

Sumerian Temple

- size: 30 metres x 35 metres.

- There is a large open area within the temple.

Facts   **Questions/Interpretations**   **Inferences**
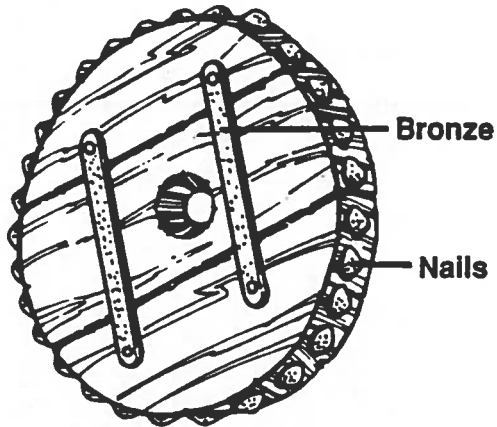
Level Seven Continued - 2500 B.C.

Artifact

Bronze Spear Points

- Bronze is an alloy of copper and tin.
- The spears come in a variety of sizes.
- They have been carefully shaped and styled.
- There is a ridge down the centre to each point.

Level Seven Continued - 2500 B.C.

Artifact

— Bronze

— Nails

Wooden Wheel
The wheel is made of three planks:
• with a hole through the centre;
• held together by bronze straps; and,
• the edge of the wheel is studded with bronze nails.

Background Data
• This level contains a town site which is extremely large and complex.
• The walls have been extended outward, thickened, and presumably raised.

Level Six - 2200 B.C.

Background Data

• This level has been completely burned out.
• Spears, swords, and skeletons were found everywhere.
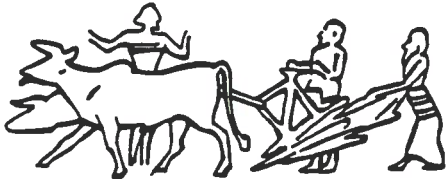• Some of the spears and swords were of a different metal than the bronze.

| Facts | Questions/Interpretations | Inferences |

Level Five - Ca. 1750 B.C.

Artifacts

Plow and Seeder on a Clay Tablet

- A plow has been invented.
- There is a team of men operating it.
- Draft animals are being used.

A Stone pillar Showing Hammurabi Receiving a Law Code

- Laws are now written down
- Law has been made public

Background Data

- Another city has been built on this site.

Level Four - Ca. 1300 B.C.

Artifacts

Clay Tablet Showing Hittite Warriors

Background Data

- The walls of this city are made from bricks in a style different from any found before at this site.
- Iron tools and weapons were found at this level.
- No evidence of iron has been found prior to excavating this level.
- Evidence of coinage was found on the site.
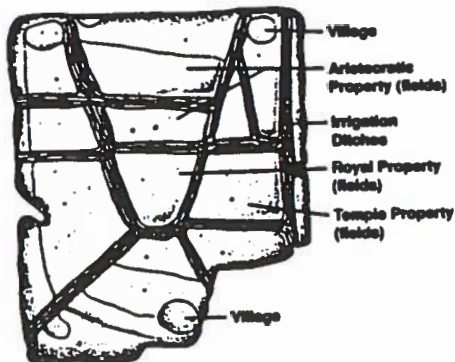- The coins were from different cities.

Facts   **Questions/Interpretations**   **Inferences**

Level Three - Ca. 700 B.C.

Artifact

Village
Aristocratic Property (fields)
Irrigation Ditches
Royal Property (fields)
Temple Property (fields)
Village

A Clay Tablet Showing the Arrangement of Fields and Irrigation Ditches

- The diagram is incomplete.
- There are three to four villages in the map.
- There is an interlocking network of irrigation canals.
- It shows a system of property ownership:
  - aristocratic property;
  - royal property;
  - temple property; and,
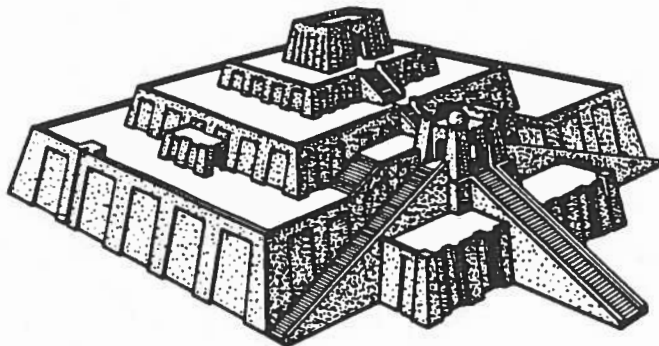 - the property of ordinary people.

| Facts | Questions/Interpretations | Inferences |

Level Three Continued - Ca. 700 B.C.

Artifacts

Plan for a Ziggurat
- It is a large several-storied building. It has geometric shapes.

Background Data

- The city on this site has been extended in size.
- A large temple called a ziggurat has been built.
- Extensive irrigation is being carried on.

| Facts | Questions/Interpretations | Inferences |

Level Two - Ca. 300 B.C.

Artifact

Coin with the image of Alexander the Great

Background Information

- The city has been sacked and burned.
- Greek coins, helmets and arms were found at this level as well as material left by the defenders of the city.

Level One - present day

- No material showing on surface.

- The land is infertile.

- No trace of civilization can be found at the surface level.

Time and Roots

Activity Five

Concepts	Skills	Common Essential Learnings
time	researching	critical and creative thinking
roots	organizing data	technological literacy
	presenting data	communication
		independent learning

This is a research activity in which the students try to find links between Canadian culture and the cultures of ancient civilizations. This activity can be done individually or in groups.

Knowledge Objectives

The students will:

- understand how different cultures have passed through different historical developments at different times;
- understand that North American culture is the product of many cultures, particularly of ancient Israel, Greece, Rome, and North America; and,
- know how Canadian culture has been influenced by these other cultures.

Skills Objectives

The students will:

- practise using a variety of resources to find information; and,
- practise organizing and presenting information in an understandable manner.

Brainstorm with the students some characteristics of Canadian culture. If they have difficulty, prompt them with questions such as:
- what sorts of entertainment do Canadians like?
- what is the major religion in Canada?
- what form of government do we have?

Write all of the students' ideas on the board.
- Suggest to them that many of these things have come down to us from ancient cultures, specifically ancient Israel, ancient Greece, ancient Rome, and ancient North America.
- Then indicate to students that they are going to learn about some of the links between Canadian culture and these ancient cultures.

Give the students a number of different categories such as the following.
- language
- religion
- art/architecture
- athletics
- ideas/values
- inventions
- agricultural products

Students will do research on these categories (and any others that you or they may think of) for ancient Israel, ancient Greece, ancient Rome, and Ancient North America.

This research can be done in several ways

The students can be broken into groups and each group can be responsible for researching the contributions of one of these ancient cultures to the culture of Canada today.
- Thus Group One could be responsible for researching the links between the ancient Greeks and Canada.
- If they wish, Group 1 could further subdivide its responsibilities so that each individual is responsible for researching one particular aspect of Greek culture, such as language or religion.

Each group could then write a report, make a presentation, or by some other means educate the rest of the class regarding the links they found between their ancient culture and Canada.

Another possibility could be to divide the class into groups and give each group responsibility for doing research on one particular category, such as art.
- Thus Group One could be responsible for researching how art in Canada has been influenced by the ancient Greeks, Romans, Hebrews, and Aboriginal Peoples of North America.

Each group could then write a report, make a presentation, or by some other means educate the rest of the class regarding the links they found between their ancient culture and Canada.

A third possibility which involves much more independent learning would be for individuals or pairs of students to do research on one or two aspects of an ancient culture, such as religion and values in ancient Israel, to determine how that has influenced Canadian culture.
- These individuals or pairs of students could once again write a report, or use some means of presentation in order to tell the rest of the class about the links between Canada and these ancient cultures.

Please Note: The four ancient civilizations being studied have not made contributions to Canadian culture in all of the categories indicated above. For example, there is no known link between sports in Canada and sports in ancient Israel!

In addition, or as an alternative activity, assign individuals or groups to work on a project researching the origins of one of the following: potatoes, corn, tobacco, highways, gunpowder, democracy. (Add to list if possible to give wider choice.)

Through their research the students should be able to report that each of these items originated in an ancient civilization and has influenced Canadian society:
- potatoes, corn, tobacco - American Indian;
- highways - ancient Romans, ancient Incas;
- gunpowder - ancient Chinese;
- democracy - American Indians, ancient Greeks;
- suspension bridges - Incas.

Assessment

Knowledge and Skills

Has the student been able to use the information studied in the following ways:

Classifying: Does the student group, sort, or place items into categories based on a set of criteria?

Generalizing: Does the student express a conclusion drawn from consideration of a number of specific instances?

Inferring: Does the student use appropriate generalizations to reach and express conclusions that go beyond the data studied?

Values

Has the student consistently demonstrated a pattern of value-based behaviour?

Complying: Does the student carry out instructions and complete the task at hand?

Accepting: Does the student demonstrate that she or he has found some worth in a behaviour, idea, or position by frequently and independently acting in accordance with it?

Preferring: Does the student demonstrate that he or she has found worth in a behaviour, idea, or position by acting consistently in accordance with it and by identifying reasons for the choice?

Integrating: Does the student, when the situation calls for it, display a commitment to equal treatment of all individuals (or objects, ideas etc.) by:
- advocating equal treatment of individuals (or objects, ideas etc.)?
- defending positions taken regarding equal treatment of individuals (or objects, ideas etc.)?
- defending the rights of individuals when needed? and,
- associating with individuals who frequently have not been treated equally?

Adapted from **A Comprehensive Framework For Instructional Objectives**, Hannah and Michaelis.

The Concept of Time

Activity Six

Concepts	Skills	Common Essential Learnings
time	inferring	critical and creative thinking
		personal and social values and skills

This activity uses case studies to examine how a number of different cultures perceive time. It will help students to understand that time is a cultural concept, and that some cultures have different perceptions of time than others.

Knowledge Objectives

The students will:

• know that different cultures have different assumptions and perceptions of time.

Skills Objectives

The students will:

• practise the skill of inferring.

Values Objectives

The students will:

• appreciate that there is no right way to perceive time; and,
• respect the fact that different cultures have different ways of perceiving time.

Distribute the reading **Time and Culture**. This reading discusses the different views of time held by different cultures. After students have read it, distribute the **Time and Culture Case Studies**. Each of these case studies describes a situation in which people from two cultures clash because they have different views of time.

A Business Transaction

Do the case study *A Business Transaction* with the class as a whole. This case study describes a situation in which two people with different perceptions of time attempt to complete a business deal. Ask students to suggest all of the possible reasons why this business transaction seems doomed to failure.

- The most likely reason that the transaction failed is because in Mohammed's culture spending time with a business colleague indicates that you value the colleague and the business transaction.
- Mohammed interpreted the North American's desire to conclude the transaction as quickly as possible as a sign that the client did not value the transaction and thus was not really a serious customer.

After you have completed one case study with the class, divide students into groups.
- Have the groups read and discuss the other case studies.
- Ask them to hypothesize about the reasons behind the misunderstandings which the case studies demonstrate.

Possible answers to the other case studies are as follows.

Opening a Medical Office

There are two possible reasons why the patients have not arrived.
- One possibility is that the medical staff and the patients have different conceptions of time.
- The medical staff is used to rigid scheduling. If someone does not arrive within five minutes of the specified time the staff considers the person late.
- The patients may not have such rigid ideas about time and may not consider themselves late until at least half a day has gone by. The patients may still be coming.

A second explanation may have to do with politeness. At the initial meeting the medical staff urged the local people to make appointments at the clinic.
- Because they wanted to be polite they made appointments regardless of whether they were sick or not.
- On the day that the clinic opened they did not come because they were not actually sick.

A Diplomatic Incident

The problem here relates to the way that individuals from the two different cultures view time.
- When Mrs. Dubois insisted upon an appointment immediately she was ignoring the customs of the country.
- If she had waited four or five weeks to make an appointment she would have been given one without delay.
- As it was she was perceived as rude and pushy by Mr. Garcia and his staff.

When Mrs. Dubois and her assistant arrived for the meeting they were operating according to North American standards of time.
- In North America a five minute wait for an appointment is an insignificant delay, a 20 minute wait is rude, and a 45 minute wait insulting.
- In Mr. Garcia's culture, however, a 45 minute wait is comparable to a five minute wait in North America, an insignificant delay only.

Student Information Sheet

Time and Culture

Every culture thinks of time in certain ways and uses time in certain ways. But the way a culture understands time is seldom made obvious. People who grow up in a culture simply absorb and accept their culture's understanding of time without even realizing it. This can cause problems when people from different cultures come into contact.

Cultures differ in the way that they see both the past and the future. For example, many cultures in the Middle East have existed for thousands of years. The people of Iran have a cultural tradition going back to the days of the Persian Empire some 2 500 years ago. Contemporary Iranians enjoy a sense of history which is both deep and proud. Other Middle Eastern people have a similar sense of the past.

This sense of the past is seen in the way that people from the Middle East approach every day life. History is used as a basis for many modern actions. Decisions made at both the government and the family level are often heavily influenced by historical examples of similar situations. When they analyze a problem most Middle Eastern people first examine and carefully develop the historical aspects of the subject.

In comparison to ancient cultures, North American culture is extremely young. This may be one of the reasons why most North Americans don't have the same sense of the past that people in the Middle East do. This past is acknowledged in this society but it doesn't usually influence daily life, or if it does, it is not recognized.

North Americans are oriented almost entirely to the future. They plan what they are going to do tomorrow, next week, next year. But their view of the future is limited to the foreseeable future - five, ten, or perhaps 20 years ahead. This relatively short view of the future often prevents the development of useful projects such as a 50 or 100 year project to clean up the environment. In contrast, many cultures in Asia have a view of the future which extends thousands of years ahead. They often have goals for their country or family which they do not expect to be accomplished for several generations.

As a rule, North Americans think of time as a road or ribbon stretching into the future. The road has compartments which are kept separate and cannot easily be changed. They allocate one compartment, that is, a certain amount of time, to each activity. Perhaps the best example of this view of time is the high school schedule. The day is divided up into rigidly scheduled periods with one subject assigned to each period. The length of the period cannot be changed even if students finish their work or if the teacher has more material to cover than the time allotted permits.

Other cultures do not have such a rigid, compartmentalized view of time. People in the Middle East may have a schedule but they can easily shift it if an activity takes less or more time than anticipated. Life is organized according to the rhythm of work and leisure rather than according to fixed compartments of time.

In North America there are unspoken rules concerning appointments. People are expected to be on time. If people want to show respect or if a meeting is very important they usually arrive five or ten minutes early. If they are a few minutes late it usually doesn't matter. If someone is more than five or ten minutes late an apology is usually expected. If a person is a half an hour late, a more lengthy apology is expected. To be an hour late is insulting and requires a very good excuse. For many appointments it would be better not to show up at all than to be an hour late.

This is not the case in many countries. In much of Latin America, being an hour late is no more serious than being five minutes late in Canada. It is not unusual for people to be several hours late for appointments or meetings. This differing perspective often creates problems when North Americans travel in Latin America.

The way that different cultures use time during business transactions also varies. In Japan, business people typically spend a great deal of time getting to know each other before they actually discuss the business at hand. They may have several meetings where business is not discussed at all. Discussion of business matters begins only after the people involved have established a personal relationship.

This is not the case in North America where business transactions are accomplished as quickly as possible. Business people pride themselves on coming to the point in meetings and in not wasting time on what they consider "trivial" conversation.

Excerpts from:

Hall, Edward T. **The Silent Language**.

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Student Information Sheet

Time and Culture Case Study

A Business Transaction

Mohammed Asmati runs a prosperous shop in the business district of a Middle Eastern city. He sells office supplies such as paper, pencils, scissors, etc.

One day a North American enters the shop and begins to discuss the purchase of a large quantity of paper. The North American immediately begins to talk about delivery dates and discounts for quantity purchases. Mohammed considers this client and sale important so he asks his assistant to make tea and to set out pastries in the office behind the shop. Mohammed invites the client into his office for tea and courteously inquires about the client's health and family.

The client drinks his tea quickly, refuses a pastry and continues to talk about delivery dates, quantities of merchandise and other business concerns. He ignores Mohammed's personal questions. Mohammed concludes that this person is not really a serious customer and responds very vaguely to his questions about the business transaction. What is the problem here?

Student Information Sheet

Time and Culture Case Study

A Medical Office

A group of Canadian medical people received funding from the Canadian government to open a medical clinic in a remote area of the Middle East.

A few days before the opening of the clinic they invite all of the people who live in the area to visit the clinic. The staff explains the services offered by the clinic and urges everyone to make appointments. Many people do make appointments. However, on the day the clinic opens, nobody shows up. Two hours pass and no patients arrive even though several appointments were booked. The medical staff is very concerned. They do not understand why people are not keeping their appointments. What is the problem here?

Student Information Sheet

Time and Culture Case Study

A Formal Meeting

Mr. Cortez Garcia is an important official in the government of a Latin American country. One day Mr. Garcia's secretary receives a telephone call from the secretary of Mrs. Francoise Dubois, the new Canadian ambassador. Mrs. Dubois' secretary says that the new ambassador arrived three days ago and that she wants to meet with Mr. Garcia as soon as possible. In this country it is customary for new diplomats to spend four or five weeks settling in and getting to know people in the community before they begin making official calls, so Mr. Garcia's secretary says that he will be glad to meet with Mrs. Dubois in a few weeks. However, Mrs. Dubois' secretary keeps phoning every day asking for an immediate appointment. Finally, Mr. Garcia agrees to see Mrs. Dubois at 2:00 p.m. on Tuesday of the next week.

On Tuesday, Mrs. Dubois arrives at five minutes to two with an assistant. The assistant tells Mr. Garcia's secretary who they are and then she and Mrs. Dubois sit down in the waiting room. At 10 minutes after two the assistant asks the secretary if Mr. Garcia knows they are there. At 2:30 p.m. the assistant asks the secretary exactly when Mrs. Dubois will be able to see Mr. Garcia. At 2:45 p.m. the assistant tells the secretary that the Ambassador has been waiting for 45 minutes and that she is sick and tired of being treated in such an insulting way. Mrs. Dubois and her assistant then storm out of the office.

When Mr. Garcia's secretary tells him what happened he says that he cannot believe that people would act in such a rude way. What is the problem here? Why do both Mr. Garcia and Mrs. Dubois believe that the other is behaving rudely?

The Concept of Time

Activity Seven

Concepts	Skills	Common Essential Learnings
time	essay writing	communication
	classifying	independent learning

This activity is designed to develop writing skills and to review what the students have learned about the concept of time.

Knowledge Objectives

The students will:

- recall the major things they have learned about time.

Skills Objectives

The students will:

- be able to write a short essay on the topic of time using a structured model.

Values Objectives

The students will:

- appreciate the importance of communicating ideas clearly and precisely.

Distribute the information sheet **Biological Clocks** to students. This information sheet contains a short essay which has been analyzed into its component parts. Point out that the essay as a whole has a beginning, a middle and an end.

The beginning states the theme or topic of the essay. The middle expands upon the theme and offers facts and examples to support it. The conclusion summarizes the essay as a whole and restates the main theme developed in the essay.

Point out that individual paragraphs also have a structure. Each paragraph in the body of the essay begins with a statement which supports the theme of the essay. The other sentences which follow in that paragraph provide facts and examples to illustrate the first sentence of the paragraph.

Next ask the class to tell you some important things they have learned about time and write what they say on the board. This activity will provide a good review of the work to date as well as providing a lead into the essay writing activity which follows.

Tell students that most of the pieces of information written on the board could serve as a theme for an essay. Select one piece of information and use it to develop an essay outline with students.

For example, the students may have said Canadian society is very time conscious.

Ask the class to give you facts, examples and illustrations which support this theme. Write these on the board as they are suggested. Below are some facts that support the theme "Canadian society is very time conscious."

- T.V. and radio programs are scheduled down to the last second.
- Our language contains many expressions which show the value we place on time, for example, time is money, lost time, wasting time, saving time, time on your hands, etc.
- Most public buildings have a clock in a prominent place.
- Airplanes, buses, and trains all run according to a set schedule, and people get very upset if they are not on time.
- Most people in our country wear watches.
- Junior and senior high school classes are organized according to a rigid schedule.

When there are six or seven facts and examples on the board begin classifying them. Have the class tell you which facts belong together. The facts relating to the theme "Canadian society is very time conscious" can be classified into groups as shown below.

Group 1

- Our language contains many expressions which show the value we place on time - time is money, lost time, wasting time, saving time, time on your hands, etc.

Group 2

- Junior and senior high school classes are organized according to a rigid schedule.
- Airplanes, buses, and trains all run according to a set schedule.
- T.V. and radio programs are scheduled down to the last second.

Group 3

- Most public buildings have a clock in a prominent place.
- Most people in our country wear watches.

Then for each group of facts ask the class to identify the main idea. Below are the main ideas for the groups in this example.

Group 1 - The speech of most Canadians reflects a preoccupation with time.
Group 2 - Many aspects of our life operate according to rigid schedules.
Group 3 - Clocks and watches are all around us.

Recall that the essay topic sentence in this exercise was "Canadians are very time conscious." Each of the main ideas above can serve as topic sentences for the paragraphs which follow. The detailed facts identified earlier can be used to support the topic sentences for the essay.

Below is a point form outline of an essay on the theme "Canadians are very time conscious.

Topic sentence	*Canadians are very time conscious.*
Supporting evidence #1	The speech of Canadians reflects a preoccupation with time.
Facts and examples which illustrate supporting evidence #1	Language contains many expressions which show the value placed on time - time is money, lost time, wasting time, saving time, time on your hands etc.
Supporting evidence #2	Many aspects of our life operate according to rigid schedules.
Facts and examples which illustrate supporting evidence #2	Junior and senior high school classes are organized according to a rigid schedule.
	Airplanes, buses, and trains all run according to a set schedule.
	T.V. and radio programs are scheduled down to the last second.
Supporting evidence #3	Clocks and watches are all around us.
Facts and examples which illustrate supporting evidence #3	Most public buildings have a clock in a prominent place.
	Most people in our country wear watches.

Explain to students that you have just developed a point form outline of an essay on the theme "Canadian society is very time conscious." Ask each student to select one of the pieces of information about time written on the board earlier and to use a similar process to prepare an outline, which is then to be developed into a short essay. An essay that includes an opening theme statement, two or three supporting paragraphs, and a conclusion is appropriate for early grade nine.

Student Information Sheet

Biological Clocks

Topic sentence	*Biological clocks exist in nature. Many plants and animals have built-in rhythms which regulate various aspects of their lives.*
Supporting evidence #1	The flowers of many plants open and close at particular times and some plants move their leaves according to a regular rhythm. For example, the morning glory
Facts and examples which illustrate supporting evidence #1	opens with the first light of day. The water lily and the evening primrose close their flowers between 5 and 6 p.m. Scientists believe that these natural cycles are controlled by light.
Supporting evidence #2	Most animals function according to natural rhythms. Some of these natural rhythms reflect the 24 hour cycle of day and night which predominates in nature. Animals' sleep patterns usually are based on this 24 hour cycle.
Facts and examples which illustrate supporting evidence #2	Others are based on the changing seasons. For example, the coats of rabbits and some other animals change in response to the shifting ratio of light and dark which accompanies the changing seasons.
Supporting evidence #3	People too have biological clocks. Many of the body's rhythms reflect nature's 24 hour cycle. People need a regular - usually nightly - period of rest. The heartbeat
Facts and examples which illustrate supporting evidence #3	rate usually drops slightly to a low point between 10 p.m. and 7 a.m. Body temperature varies each day, but usually falls to its lowest point during sleep between 1 a.m. and 7 a.m.
Conclusion	Plants, mammals and people all function according to natural biological rhythms. These rhythms usually cannot be easily changed because they reflect the larger cycles of night and day and the changing seasons which are part of nature.

Time and Measurement

Activity Eight

Concepts	Skills	Common Essential Learnings
time	inferring	critical and creative thinking
calendars	generalizing	technological literacy
		communication

This activity develops students' knowledge about calendars and the cultures that developed them. It also develops students' ability to make inferences.

Knowledge Objectives

The students will:

- know that time can be described and measured in various ways;
- know that models have been developed to conceptualize and structure time;
- demonstrate knowledge of the calendars of various ancient cultures; and,
- demonstrate knowledge about the cultures that developed these calendars.

Skills Objectives

The students will:

- practice distinguishing facts from opinions;
- learn to draw inferences about the past through the interpretation of facts and documents; and,
- learn to share and debate different interpretations with other members of a research team.

Values Objectives

The students will:

- appreciate that cultures using different assumptions will solve important problems in different ways.

Distribute the student information sheets on the calendars of the ancient Babylonian, Egyptian, and Mayan cultures. Discuss one of the calendars (perhaps the Egyptian) with the class as a whole. Ask the class to identify some facts about the calendar and then to develop inferences about the culture that developed the calendar based on these facts. First write the facts on the board as students suggest them. The following facts might be suggested for the ancient Egyptian calendar.

Facts

- based on the movements of the moon, sun, and stars
- highly sophisticated, developed over a period of centuries
- required elaborate record-keeping
- had 3 seasons: flooding, sowing and harvest
- organization of the calendar was based on religious philosophy

Then ask the class to develop inferences about ancient Egyptian civilization on the basis of these facts. Some possible inferences include:

Facts	Inferences
• based on the movements of the moon, sun and stars	Were knowledgeable about the movements of the heavenly bodies. Probably time was spent systematically studying the heavens. At least some of the people in the culture could devote their time to studying the heavens.
• highly sophisticated, developed over a period of centuries	Knowledge was recorded and passed on from one generation to another.
• required elaborate record-keeping	Had a system for maintaining written records. Knew enough mathematics to make calculations.
• had 3 seasons: flooding, sowing and harvest	A reflection of agricultural patterns along the Nile.
• explanation for organization of the calendar was based on religious philosophy	Religion was important in Egyptian society.

After you have developed one example in class, divide the students into groups of three or four. Assign a specific calendar to each group (Note: There will probably be two groups doing each calendar) and ask the groups to list facts about the calendar assigned to them and to develop inferences based on these facts.

After students have completed this task, have them check their inferences in reference books or encyclopedias.

As an extension of this activity, you may wish to have the students pursue information about modern calendars. Jews, Muslims, Hindus, and Chinese are just some of the cultural groups who do not use the Gregorian calender, or who use their traditional calendars in conjunction with the Gregorian calendar.

Student Information Sheet

The Calendar of Ancient Egypt

Egypt is a hot desert country. Only the annual flooding of the Nile makes the land fertile and makes farming possible. The ancient Egyptians learned to use this annual flooding to maximum advantage. By planting at the appropriate time and using farming methods which conserved water they were able to grow rich crops without having to water by hand.

Because the flooding of the Nile was so important to the Egyptians, those who could predict its coming were seen to have supernatural powers. Thus those who observed the moon, sun and stars in order to predict when the flooding would occur became priests of the Egyptian religion. Over many centuries the observations of these priests led to the development of a complex calendar. Gods and goddesses were developed to explain the movement of the sun, moon, and stars, and the changing seasons.

The length of the Egyptian year was based on the star Sirius (also called the Dog Star). The priest/astronomers noted that Sirius disappeared for several months and then reappeared just before the annual flooding of the Nile. A year came to be the period of time which elapsed from one appearance of Sirius to the next - a period of 365 days.

The year was divided into 12 months of 30 days each. Five extra days were inserted between the last day of the last month and the first day of the first month of the year. These extra days were feast days, days to celebrate the birthdays of the gods. The autumn equinox - the day when night and day are of equal length - marked the beginning of the new year. The new year brought in the season of sowing. This was followed by the seasons of harvest and flood. Thus the Egyptian calender had only three seasons.

Because the Egyptian year was based on the star Sirius, which reappeared every 365 days, rather than on the rotation of the earth around the sun, which takes 365 1/4 days, over a period of centuries the calendar became more and more out of phase with the seasons. The priest/astronomers were aware of the extra quarter day and of its effect on the calendar. However, because the calendar was part of their religion it was considered sacred and could not be changed. Thus they never acted on their knowledge even when, after several centuries, the festivals of harvest were being celebrated in the season of sowing. In about 238 B.C. King Ptolemy I tried to reform the calendar but was unsuccessful in the face of tradition and the power of the priests.

Student Information Sheet

The Mayan Calendar

The Mayan civilization was at its height about two thousand years ago in the area that is today southern Mexico and northern Guatemala. Among the Mayans, as among many earlier civilizations, time keeping and maintenance of the calendar were the responsibilities of priest/astronomers.

The Mayan calendar was highly complex. It consisted of a series of cycles all occurring at the same time. Each cycle kept track of time in a different way but all were interdependent.

The tzolkin or sacred year was 260 days long. It had religious functions and determined the patterns of ceremonial life. The sacred year was not divided into months. Each day was assigned both a number from one to 13 and one of the twenty Maya day names which works out to 260 possible combinations. The tzolkin was based on mathematical calculations, not on any natural phenomena such as the movement of the sun or the moon.

The haab or civil year was used for everyday affairs. This year had 365 days divided into 18 months of 20 days each with an extra five days at the end of the year. These five days were considered a period of extreme misfortune and were regarded with great fear and dread. Meshing the 365 day haab with the 260 day tzolkin produced the Calendar Round, which was used for recording time and forecasting events. The combination of the haab and the tzolkin produced 18 980 unique dates. Thus the Calendar Round repeated itself every 52 years.

In addition, the Mayans used a system called the Long Count. The Long Count was probably the most accurate calendar ever devised by an ancient civilization and allowed the Maya to keep track of enormous spans of time. All days were numbered starting with an arbitrary date some 3 000 years in the past.

Each unit of the Mayan calendar - days, months, years and the various longer cycles - was pictured as a burden carried by one of the gods. At the end of each unit the burden was set down by the god that had been carrying it and picked up by the next god. If it happened that a cycle was picked up by an evil god, bad times were in store until the cycle was passed on to a good god. Since the Calendar Round was a cycle of 52 years, a bad god could bring bad luck for a long time.

Because of the complexity of the calendar only the priest/astronomers had detailed knowledge of which periods were lucky and which unlucky. They interpreted this and other aspects of the calendar to the ordinary people and thus had considerable power and influence over everyday life.

Student Information Sheet

The Babylonian Calendar

The priest/astronomers of ancient Babylon were primarily interested in astrology, the belief that the positions of the stars and planets foretell the future. In order to practice astrology they made precise observations of the movements of the sun, moon, planets and stars. The calendar grew out of these observations.

A Babylonian year was divided into 12 months. The months were not further subdivided into weeks as the Gregorian calendar is. The length of a month was based on the time that it takes for the moon to move through all of its phases. Because the moon goes through its phases in 29 1/2 days, a year was only 354 days long. The calendar year was therefore slightly shorter than the 365 day solar year - the time that it takes for the sun to rotate around the earth. If continued for any length of time this arrangement would mean that the calendar would soon be out of phase with the seasons. In order to synchronize the calendar and the seasons the priest/astronomers began to add extra days or months. At first these extra days and months were added at the whim of the priests but later a schedule was developed in which seven additional months were added every 19 years.

Time and Culture

Activity Nine

Concepts	Skills	Common Essential Learnings
time	compare and contrast	critical and creative thinking
roots	generalizing	technological literacy
oral history	organizing data	communication
		independent learning

This is an independent study designed to provide students with background information about the major centres of ancient civilization. The study works best when done in groups, but it can also be done individually.

Knowledge Objectives

The students will:

- understand that the earliest civilizations had fundamental similarities regarding oral history, location, time of emergence, religious beliefs, and so on;
- understand that over time cultures develop and maintain important traditions; and,
- know that the stories associated with various cultures are a serious attempt to understand and preserve important cultural understandings.

Skills Objectives

The students will:

- develop the ability to compare and contrast a number of distinct cultures;
- practise group work skills; and,
- practise research skills.

Tell students that they have been specially chosen as delegates to attend a conference on ancient civilizations.
- The four ancient civilizations to be studied are: Mesopotamia, ancient Egypt, ancient China, ancient India, and ancient North America.
- The purpose of the conference is to share information on these civilizations and to search for similarities and differences.
- Particular attention should be paid to the role of oral history, and the significance of stories which were passed down through the generations until they were finally recorded.

Break the class into four groups, with one group assigned to each of the cultures.
- Then the students within each group can be subdivided in order to concentrate on specific aspects of each civilization, such as religion and values, oral history i.e. stories, economic life, social structure (i.e. class organization, slave ownership, roles of women and men, etc.), language, technology, social customs, and so on.
- You may wish to give the students some degree of freedom in choosing their subgroups and the topic their subgroup wishes to study.

Have students do the necessary research and write a report.
- Alternately, they can present their findings in the form of drawings, scale models, etc.
- Encourage them to look for creative and innovative ways to express their findings.

Once students have done their research and compiled their information, bring them together in a large group conference.
- Set up the desks or chairs in a circle, with members of the same group sitting together.
- Each group should present its findings, then the group as a whole should discuss some of the similarities and differences which emerged from the conference proceedings.
- The group as a whole may then try to come up with a list of similarities and differences to present to the teacher for evaluation.

Those students studying the role of oral history and the stories which are the result of oral history should note particularly the similarities between the different explanations of creation and the origins and roots of particular civilizations.

Time and Culture

Activity Ten

Concepts	Skills	Common Essential Learnings
archaeological techniques culture	inferring generalizing	critical and creative thinking technological literacy communication

This short and simple activity considers the types of artifacts found by archaeologists and what inferences they can make from those artifacts. It is a good activity for developing the skill of making inferences.

Knowledge Objectives

The students will:

• describe the kinds of evidence which archaeologists work with; and,
• understand that archaeologists have to make inferences about ancient civilizations based on the artifacts they find.

Skills Objectives

The students will:

• learn to draw inferences about the past through the interpretation of artifacts; and,
• learn to share and debate different interpretations with other students.

Values Objectives

• appreciate the tentative nature of archaeological conclusions.

On the board list some of the kinds of artifacts that archaeologists find in their digs, for example, pottery, coins, jewellery, musical instruments, remains of buildings, tools, etc. Ask students to suggest what an archaeologist might infer about a culture from these artifacts. For example:

Pottery

- designs on pottery could reveal something about the society's way of life, its religious beliefs, and its idea of beauty
- technique used to create the pottery reveals something about the level of technology in the society
- stains, and remnants of food or drink in the pottery might tell something about the diet of the culture
- dyes used to colour the pottery and to make designs reveal something about minerals and plants used by people in the culture
- shape and design of pottery might show influences of other cultures

Repeat a similar process for each of the different types of artifacts listed on the board.

Distribute the student information sheet **Another Find**. This sheet describes a number of artifacts from a previously unknown civilization which were found at an imaginary archaeological site. Students are given a number of inferences that were made about this civilization. They have to determine whether the inferences are justifiable or not. This activity can be done individually or in groups.

Student Information Sheet

Another Find

You are a renowned archaeologist. A new site has been discovered on a remote island. You and your assistants travel to the island and find the remains of a culture that no one knows anything about. The artifacts you found include:

- a bronze coin
- a clay vase with designs showing men riding horses
- a sundial
- a vest made out of iron
- a sword
- a clay tablet with writing on it
- a head sculptured in bronze
- a clay flute

After examining the artifacts, you made the following inferences about this ancient society.

The members of this society

- had a monetary system
- valued literature
- had leisure time
- had slaves
- were conscious of time and had a system of measuring it
- fought battles
- had domesticated the horse
- valued bronze as the most valuable metal
- valued art
- staged plays
- went hunting

Which inferences would your colleagues agree with after studying the artifacts? Which ones could they disagree with? Which ones would they definitely disagree with?

Get together with some of your classmates and compare answers. Make sure you are prepared to give reasons for your answers.

Time and Culture

Activity Eleven

Concepts	Skills	Common Essential Learnings
archaeological techniques	inferring generalizing	critical and creative thinking technological literacy
culture	classifying categorizing	communication

This activity illustrates how archaeology gives us information about the past. It teaches something about the techniques used by archaeologists and develops the skill of making an inference.

Note: If you wish to use this activity as a substitute for Activity Four, it is suggested that you use the "mystery locker" introduction contained in Activity Four (or a similar activity) in order to develop the skill of inferring.

Knowledge Objectives

The students will:

- describe the reasons why historic sites are excavated by archaeologists; and,
- describe the techniques used by archaeologists.

Skills Objectives

The students will:

- learn to rank, order and interpret archaeological artifacts;
- learn to draw inferences about the past through the interpretation of artifacts and documents; and,
- learn to share and debate different interpretations with other members of a research team.

Values Objectives

The students will:

- appreciate the tentative nature of archaeological conclusions.

Begin this activity by explaining to students that there are three major ways that we learn about the past. These ways are:

- written records left behind from earlier times or other cultures - written records can be on stone, parchment, leather or other materials as well as on paper.
- oral records - some cultures keep their history alive by passing it along through stories and legends from one generation to the next.
- material remains - the remains left behind by earlier peoples: skeletons, animal bones, tools and weapons, fragments of pottery, jewellery and clothing, ruins of buildings, etc.

Tell students that archaeologists study the material remains left behind by other cultures.
- In the next activity they will be learning about some of the techniques used by archaeologists and about how they interpret their findings.

- Distribute the Student Information Sheet entitled **Why Archaeology?** (see Activity Four) and ask students to read it as preparation for the activity to come.

Explain to students that archaeology is a highly technical science and that archaeologists have developed sophisticated techniques.
- In order to better understand these techniques, the students will participate in a simulation which will allow them to practice some of the techniques used by archaeologists.
- In the simulation, students will be grouped. Each group will create a miniature archaeological site. The miniature site will be excavated and interpreted by another group.
- Divide students into groups of three to five. Distribute the information sheet **Archaeological Case Study** to students and allow them time to read it.

Each group should expand its case study and develop additional information about each of the three cultural groups which lived at various times at the site. Some of the things they should decide about each culture include:
- what was the economy based on - hunting and gathering, farming, trading, manufacturing or a combination of several?
- was there a written language?
- what type of technology existed - stone tools, metal tools and equipment? Did the culture use the wheel? Was there any mechanization?
- what type of clothing did the people wear?
- what types of buildings were constructed - large, small, permanent, temporary, sticks and grass, stone, log, wood, etc?
- what type of artistic expression did the people have - rock paintings, decoration on clothing and building, paintings on wood or canvas, music, dance, theatre? Did they have theatres or other types of buildings devoted to the arts?

After students have developed their cultures in more detail, they should decide how each aspect of the culture would be reflected in the artifacts left behind.

- For example, the economy of a culture would have a direct bearing on the types of buildings constructed.
- A culture whose economy is based on hunting and gathering would probably have semi-permanent homes that could be moved easily or discarded.
- The homes would be made of lightweight materials that are easy to obtain. Thus there would be few buildings at the sites inhabited by this culture, although there may be remains of buildings.
- A culture whose economy was based on trading or manufacturing would probably leave behind large, permanent structures made of materials such as wood or stone.

After each group has developed its cultures, students should begin creating a simulated miniature archaeological site. The site should be created in a shallow cardboard or wood box.

- Students should use stone, bone, wood, metal, leather, etc. to create artifacts, buildings, etc. which reflect each of the three cultures. They should use soil, clay, wood, leaves, etc. to build up the three levels of strata, burying the artifacts in their appropriate places.
- The groups should not allow other students to see their simulated sites. Otherwise they won't be able to make inferences later in the activity.

When the simulated sites are completed, have the students read the Student Information Sheet entitled **Archaeological Techniques**.

- Discuss this with them to ensure that they understand it. Then have the groups exchange boxes and begin to excavate. They should use the same techniques as real archaeologists.
- When students have finished excavating their simulated site ask them to make inferences about the culture which lived at each level.
- For each inference made students should indicate what archaeological evidence led them to make this inference. The inferences and the supporting evidence should be written up in the same parallel form as were the contents of the locker.
- Finally the students who did the excavating should check their descriptions of the cultures that lived in their simulated site with the students who prepared the site. This will allow them to assess how accurate their inferences were.

Note: In this activity as described, students develop and excavate a simulated site with three levels which reflect three different cultural groups. If a limited time is available or if a less complex activity would be more suited to students' interests and abilities, the activity can be done with only one civilization and one level to be excavated.

Student Information Sheet

Archaeological Case Study

Imagine a prehistoric hunting ground thousands of years ago. The people who lived there hunted with stone weapons and gathered food that grew wild. Enemies came upon this group just as they were dividing a large animal that had been killed. They were greatly outnumbered, so the hunters dropped everything and ran. For fear of the enemies, they never returned to the site, and their tools became buried by leaves and earth.

Many years later a small town grew up on this same site. The people did simple farming using bronze tools and lived in huts where they cooked and made clothing. As they gathered together to offer sacrifices to their gods for a good harvest, a warring group overcame them and burned their town.

Much later a small city grew up in this same area. It was a busy trading centre and, although they did not have writing, the people kept pictograph records of their business exchanges on clay tablets. The wealthier tradespeople bartered for some decorations for themselves or their homes. A terrible plague wiped out most of the inhabitants in one year, and the few survivors deserted the city. Winds and rain caused the neglected buildings to deteriorate. Gradually the soil blew in over them and new vegetation grew.

From: LoGuidice, James, et al. **A Guide To Archaeology for Highly Gifted Students.** Doylestown, PA: Bucks County Schools, 1982.

Student Information Sheet

Archaeological Techniques

Locating Archaeological Sites

Archaeologists usually don't discover ancient sites by accident. They examine old maps and written records for indications of areas where people might have lived. They know that early humans needed safe living areas with an adequate supply of food and water. Thus they look for sites in areas that provided these necessities.

Defense

People need to be safe. Commonly sites were chosen because they could be defended. Defense was important because in early times there were many dangers both from wild animals and from competing or warring groups of people. Often natural defenses were sought. A point of land protected by water or an area surrounded by mountains was desirable. People often located their towns or settlements on high hills so that they could see long distances and shoot down on enemies. Archaeologists look for ancient sites in these types of easily defended locations .... Sometimes if a city or village had been built on an especially good site with plenty of water and food, and easy defense, the site was used over and over again. In many places in the Near East there are sites of this type that look like great mounds of earth. These are called tells, places where city has been built upon city ....

At times, the people of a city were attacked and beaten by some enemy. The enemy might be an army from another land or a terrible disease. The people were wiped out. Perhaps the city was empty for a hundred years or more, but in time some people came along and saw that this was a perfect place to build for the same reasons that earlier people had built there. Only now the tell was even higher and thus better for defense. This continued until some tells contained the remains of more than twenty different communities.

When archaeologists dig into a tell, they find layers, called strata. Each stratum or single layer contains the artifacts from a time period when a particular group of people lived on the tell. Usually the deeper the artifacts are found, the older they are .... Archaeologists study these strata very carefully. Often when new groups began to build on a tell, they dug into the ground to build the foundations for their houses, and threw up dirt and artifacts that belonged in the next layer down. Archaeologists who dig these sites hundreds of years later find a mixing of materials from different layers and must work thoughtfully to figure out what this mixing means and how it happened.

Water

All cultures need a supply of fresh water. Most early cultures would not have been able to store fresh water in large amounts. These cultures had to either live near a water source or have a means of bringing water to them. Streams, rivers, and lakes were also an important means of transportation between villages and hunting grounds, and served as natural highways. The archaeologist looks for clues on topographical maps that show the location not only of

present-day rivers and lakes but also of valleys and other land depressions where a river or lake may once have existed.

Food

All people must eat. Many early groups depended on hunting and gathering for their food. They followed migrating animals or lived near areas where berries, roots and other food plants grew in abundance. If archaeologists can identify the migration patterns of animals, they have a good indication of where earlier peoples might have lived. People who lived near large bodies of water often ate great numbers of shellfish. Piles of shells are a good indication that other artifacts will be found close by ....

Deciding Where to Dig

Once archaeologists have located a site, they have to decide where to start digging. Some sites may be quite large. Most artifacts are hidden underground. To dig an entire area could be time-consuming and might yield nothing. Therefore archaeologists look at the site from every possible angle.

From the Ground

Archaeologists cover the ground on foot and look for any artifacts that may be showing on the surface. Broken pieces of pottery, arrowheads, shell mounds, or fragments of worked stone or metal may provide the first clue to a backyard trash pit or village work area. Large stones, laid out in a pattern, may be the remains of a building foundation or an old well that has been filled in over the years. Sometimes the clue will be a mound of earth that is out of place in an otherwise flat area.

From the Air

Evidence of human settlement may not be lying out in the open. Sometimes archaeologists will try to find clues by flying over and looking down on the possible site. From the air, certain features are apparent that are not noticeable from the ground such as crop marks. These are filled-in places, such as trash pits or cellar holes, and contain rich soil. From the air, crops appear to grow thicker and have a darker colour above such areas. In contrast, crops growing over areas where there is a buried wall or foundation tend to appear thinner and lighter in colour.

Under the Ground

More clues can be discovered by searching under the soil. Sometimes archaeologists force a solid steel rod into the ground, a process called "probing." Walls and foundations hidden below the surface are hard. They stop the probe from being pushed through the soil .... Probing with a steel tube instead of a rod is called "coring." By pushing the metal tube into the ground, archaeologists bring up a core, or sample of the soil. This sample is carefully removed from the tube and studied to discover information about the soil layers.

Preparing to Dig

Once the initial dig areas have been located, several things must be done before the actual excavation begins. The areas must be mapped, archaeological squares must be marked, and serious research into the area's past must be done.

First a map is drawn of the area where the site is located. All of the surface features of the site: hills and valleys, streams, buildings and roads are shown on the map. Next a grid is laid over the map. A grid is a pattern of lines like that found on graph paper. Laying a grid over the entire map and numbering each square in the grid make it possible to easily find any area on the map.

At the dig site, a stake is driven into the ground at each corner of a grid square until the whole area is marked off in squares just as on the map. String is used to connect the stakes. The squares are numbered using the same numbering system as the map.

Excavating An Archaeological Site

The squares in an archaeological site are dug up one at a time. Before archaeologists begin digging, they search the grass in the square for any artifacts showing on the surface. These are placed in a plastic bag, labelled with the square location and a note that it was found in the grass. The turf is then cut into squares and carefully lifted so that it can be replaced when the dig is done.

Next the surface of the square is mapped. A top plan showing any large rocks, pieces of wood or artifacts located immediately below the turf is made. A new top plan is made each morning during an archaeological dig.

The square is dug out slowly. Each artifact must be dug from its location with care. The artifact must not be destroyed. Each artifact is treated as if it held a valuable clue. It must not even be moved until all the information that its location can provide has been recorded.

If the archaeologists have probed the site and know that no artifacts are likely to be found in the first two feet, they might begin carefully digging with a shovel until they are close to the two-foot level. At the first sign of an artifact, they would immediately stop shovelling and begin using a smaller tool.

Tools of the Archaeologist

A patish, or hand pick, is used for loosening the soil before it is scraped into a pile with a trowel. The loose dirt scraped up by the trowel is brushed into a dustpan and emptied into a labelled bucket.

When artifacts are discovered, small tools, such as dental picks and paint brushes, are gently used to clean off dirt. This cleaning is done without moving the artifacts from their location ....

Every bit of soil is placed in baskets or buckets and brought to yet another of the archaeologist's tools, the sifter. The dirt from each labelled bucket is loaded onto a framed screen, which is then shaken to send the dirt through the small, quarter-inch holes. What is left on the screen are bones and in many cases figurines, beads, teeth, and bits of glass and pottery so small that they were overlooked by the diggers in the pits ....

Adapted from Porell: **Digging the Past**, Addison Wesley Publishers, 1979.
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Time and Culture

Activity Twelve

Concepts	Skills	Common Essential Learnings
archaeological techniques	inferring	critical and creative thinking
culture	generalizing	technological literacy
	classifying	communication
	categorizing	

This activity is based on an actual archaeological investigation done in Saskatchewan in 1981-82. Students will read the description of the investigation and set up a chart to categorize and classify the information. Then they will draw inferences from the information given and compare their inferences with the actual conclusions of the study. This activity can be done in a large group, small groups, or individually.

Knowledge Objectives

The students will:

• understand why historic sites are excavated by archaeologists;
• understand why archaeology is important for helping people to understand their past; and,
• understand the limits of archaeology.

Skills Objectives

The students will:

• learn to rank, order and interpret archaeological artifacts;
• learn to draw inferences about the past through the interpretation of artifacts; and,
• learn to share and debate different interpretations with other members of a research team.

Values Objectives

The students will:

• appreciate the tentative nature of archaeological conclusions.

Distribute the student information sheets entitled **The Lucky Strike Site** and allow time for students to read it.

- It describes an archaeological excavation which was carried out in Saskatchewan in 1981-82.
- After students have read the information sheet locate the Lucky Strike site on a wall map of Saskatchewan. It was located 18 km east of Rosthern.

Tell students that they need to take the information found at the Lucky Strike site and make some inferences about the significance of that information.

- But before they do that, they will have to categorize and classify the information in some meaningful way.
- Work with the students to develop a matrix in which they record:
  - the artifacts found;
  - whether the artifacts were found on the North site or the South site; and,
  - whether the artifacts were from the small hearth, large hearth, or pit.

To benefit those students who are more visually oriented, you may wish to have the students draw diagrams of the Lucky Strike site, the pit, and the two hearths. They could draw both top-view diagrams and cross-section diagrams.

Once the students have recorded the information in this manner they can begin to make some inferences about the people who inhabited this site. Have them pay particular attention to the four objectives of the investigation which are on the first page of their reading on the Lucky Strike site.

Once they have made their inferences, distribute the student information sheet entitled **Inferences Drawn from the Lucky Strike Site**. This will enable students to compare their inferences with those of the professional archaeologists who actually conducted the investigation.

Student Information Sheet

The Lucky Strike Site

The Lucky Strike archaeological site was located about 18 kilometres east of Rosthern and 2.3 kilometres east of the South Saskatchewan River. The site was discovered in 1981 when archaeologists were examining the planned roadway for relocating a section of Highway 312.

After the site's discovery archaeologists conducted a series of tests to determine whether it was worth excavating. They dug 20 test holes. Each test hole was 40 x 40 centimetres square. The test holes were dug at two metre intervals in each direction outwards from the centre of the site. Artifacts, including pottery sherds, bone fragments, knapped rock flakes and fire-cracked rocks were found in most of the test holes. On the basis of this evidence it was decided that the site should be excavated before construction on the highway began.

During the winter of 1981-82 the trees and brush were removed from a second roadway approximately 50 metres north of the first one. The purpose of this second roadway was to allow construction equipment to pass around the site area. Unfortunately, construction of the second roadway disturbed another site. Since the existence of this second site was not known to archaeologists until they arrived to conduct the excavation, the two sites were treated as one during the investigation.

Little is known about the way that ancient peoples lived in this area of Saskatchewan. Therefore, the research was designed to provide information about the life of the people who occupied this site many generations ago. The research objectives were to:

- determine whether or not the site was occupied on more than one occasion;
- attempt to identify the material culture which the residents of the site may have had; that is, the kinds of homes, clothing, tools, weapons and other physical objects that they used in their daily lives;
- identify the date or dates during which the site was occupied; and,
- identify how long people lived at the site and the probable period of the year.

Present Environment and Environmental History

The Lucky Strike site was located in an area of ancient sand dunes. Likely these dunes were formed about 11 500 years ago when the South Saskatchewan River flowed into a lake left behind by a glacier. Today the area is slightly hilly and is covered with black soil. The area where the ancient lake was once located is covered with light sandy loam....

The Lucky Strike site was located in the aspen parkland, an area located in the centre of Saskatchewan between the prairies to the south and the heavy forest to the north. There are aspen groves, interspersed with grassy areas. Tall shrubs such as saskatoon berry and chokecherry grow in low-lying areas.

Bison and elk were probably once found in abundance in the area but no longer live there. Mule deer have been replaced by white-tailed deer. Wolf and black bears once lived in the area but have now been driven further north. Coyotes, red foxes, ground squirrels, rabbits and mice still live in the area. Birds in the area include ducks, Canada geese, sandhill crane and grouse.

Techniques Used

A map of the archaeological site was drawn. A grid pattern was drawn on the map and a matching grid staked out the site. The areas to be excavated at the site were identified on the basis of the test holes dug earlier. The areas which contained the most artifacts were excavated.

The site was excavated one square metre at a time. Each square was shovelled out and the soil screened. When a square contained artifacts a trowel or other small tool was used to avoid damaging them.

Careful records were kept throughout the testing and excavation of the site. Artifacts were bagged and labelled according to their location on the grid. The depth at which each artifact was found was also recorded. Photographs were taken throughout the excavation.

The location of the artifacts found at the site suggest that a small campsite existed. As noted earlier the site actually consisted of two separate areas about 50 metres apart. It was not possible to determine whether there was any association between the north and south sites.

Southern Site

Although artifacts at the southern site were found scattered over a large area, the majority came from a relatively small area which contained evidence of two hearths and a pit. All three of these features were located within a six square metre area.

The Pit

The pit was small. At the top it was circular with a diameter of about 50 centimetres, but at the bottom it was roughly T shaped. The bottom of the pit was about 55 centimetres below the present surface, but was probably only 40 centimetres deep when dug originally. There is no evidence as to why the pit was dug, but it contained fragments of burned and unburned bone as well as stone items. Some of the bone came from bison, but most of it was unidentifiable. The rock artifacts included a scraper made from quartz, numerous flakes of various types of stone plus some stone fragments.

The Small Hearth

The smaller of the two hearths was roughly circular and about one metre in diameter. In profile it was bowl shaped and approximately 20 centimetres deep. It lay about 12 to 15 centimetres below the present surface. It was filled with a mixture of sand, very fine charcoal, fire-cracked rock and burned bone. Below the hearth there was a layer of red sand. This suggested that either the hearth was used for a very long period or that it contained a very hot fire.

The Large Hearth

The large hearth covered an area approximately 2 metres x 1.5 metres. There was no evidence of any attempt to excavate a hole for the hearth; in fact the evidence suggests the opposite. There was a build-up of deposits on the surface. The area of the hearth was littered with burned and unburned bones and bone fragments as well as with stone tools, stone particles and pottery sherds.

Artifacts Found at the Southern Site

Approximately 1 400 items of archaeological significance were located in the southern portion of the site. However, most of the artifacts were fire-cracked rock, bone and stone chips from stone knapping. Only 35 stone tools were found and about 300 pottery sherds. The fire-cracked rock, stone flakes and chips, and bone were scattered over a relatively large area but were found in greater quantities in and around the hearths. Burnt bone was concentrated around the smaller hearth. The stone tools were found in and around the two hearths.

Pottery sherds were found in a number of areas. Most of the larger sherds were found in the large hearth and many small sherds and crumbs were found scattered in an area about six metres east of the large hearth. Of the 300 pottery sherds recovered only 35 were large enough to provide information on the surface finish of the pottery. They suggest that the exterior of the pots had a smooth texture which looked as if fabric had been pressed into it. All of the pottery fragments were from the body of pots and none from the neck or rim. Thus is was not possible to determine exactly the shape of the completed pot.

Only 356 tools or tool fragments were found at the site. Projectile points (arrow and spear heads) and preforms (unfinished tools that have been chipped away but aren't yet completed) made up 11.4% of the tools. Endscrapers (used for scraping hides) account for 20% of the tools. The large number of endscrapers suggests that the processing of food, skins and hides was one of the main functions of the camp.

Some spokeshaves (used for smoothing arrow shafts or other pieces of wood) and hammerstones (large oval stones used as an all purpose hammer) were also recovered from the site. This suggests that tools and weapons were also manufactured or repaired at the site. The spokeshaves were probably used to shape or smooth arrow shafts but could also have been used to form other items of wood or even bone. The hammerstones probably were used to form stone tools and weapons. The fact that many stone flakes and chips were found at the site also suggests that tools and weapons were made there.

More than six kilograms of bone and bone fragments were found in the southern excavation. Most of these were too small to be identified, but it was possible to determine that many of the larger fragments came from bison. As well, bones from deer, rabbits, birds and canines such as dogs and coyotes were also identified. Although most of the bone was in small fragments there was no evidence that these fragments had been boiled to extract the grease. Rather, it appeared that the bones had been broken to extract the marrow.

There were not enough bone fragments to determine whether the residents of the site had preferences for a particular part of the bison brought into camp. In fact, fragments from most areas of the bison have been identified - skull, vertebrae, leg bones and hoof. It appears therefore that while the bison was the main source of food the residents of the camp ate whatever animal was available and wasted little if anything.

Northern Site

Another site was found about 50 metres north of the original site when a grader cut through the area. Approximately 500 items of cultural significance were recovered from the area of the site. Most of the artifacts found were fire-cracked rock, bone, and stone chips. Only four pottery sherds and 11 stone tools were found. These artifacts were scattered throughout the area but were concentrated in a couple of areas. This suggests that perhaps two hearths were present sometime in the past.

All of the pottery sherds found were very small and broken thus it was not possible to determine the shape of the pots or their exterior finish.

Only 11 tools or tool fragments were recovered from the northern end of the site. Projectile points made up 33.3% of the tools found. The only other complete tool was an endscraper. Stone fragments and flakes made up 58.3% of the material found. The large number of projectile points suggests a hunting camp with little if any processing of skins. The abundance of stone chips suggests that tool making occurred.

About 5.5 kilograms of unburned bone was collected from the excavation at the northern end of the site. Most of the bone was in small fragments. However, it was possible to identify bones from bison, rabbit, bird, and canines. As was the case with the southern part of the site it was impossible to determine if some portions of animals were preferred over others. All portions appear to have been utilized.

Student Information Sheet

Inferences Drawn from the Lucky Strike Site

The two areas of the Lucky Strike site were similar in that both contained similar projectile points and pottery sherds. However, this is the limit of the similarity. Evidence from the northern area suggests a short-term campsite while evidence from the southern area indicates a longer period of residence.

The southern area is located on an exposed location on top of a hill (an ancient sand dune). This suggests a summer residence when the prevailing winds would reduce insect attacks.

A pit is located in the southern area. Although its actual purpose is unknown it may have been used for storage and there was evidence that debris was thrown into it. The large hearth contained a thick layer of burned bone and other debris suggesting a residence of more than a few days. The small hearth in the southern area had a thick layer of fire-reddened sand beneath it suggesting the use of a very hot fire or the use of fire over a long period of time. Could this have been a pottery firing hearth? If pottery was being produced at this location the people probably lived here weeks instead of days since pots must be allowed to air-dry slowly before being fired.

The large amount of stone, fire-cracked rock and stone flakes also suggests that the area was used over a period of more than a few days. The location is an ancient sand dune with no natural deposits of stone, yet over 18 kilograms of fire-cracked rock were found at the site. All of this rock had to be carried to the site.

The stone tools found in the southern excavation were primarily endscrapers. This suggests that the processing of meat and skins was a major task at this site. Since such chores were usually done by women, the evidence suggests that the area was occupied by a family or a small group.

The evidence at the northern site suggested that it was inhabited for a short while only. It was located in a low sheltered area. Although the area would be wet in spring it would possibly be dry by fall. This suggests that it was a fall campsite. The area lacked a clearly defined hearth but fire-cracked rock and bone are distributed in a way to suggest a possible location. It is possible that a hearth existed but was destroyed by tree growth. Only five kilograms of fire-cracked rock was found in the area. As this rock had to be carried to the site, it suggests a shorter stay.

The few stone tools found in the northern area are mainly projectile points. This suggests that the area was the site of a hunting camp of short duration.

The bone found in both campsites came from the same animals. This is probably a factor of the types of animals available in the area and not the result of any special preference.

Adapted from: Wilson, James S. "The Lucky Strike Site: a Late Prehistoric Campsite in the Aspen Parkland". **Saskatchewan Archaeology**, Vol. 5, 1984. p. 5-26.
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Unit II
Change

Table of Contents

Activities Which Develop an Understanding of the Concepts of World View and Change

This is a concept development activity intended to help students understand the role belief systems play in the lives of people. It is a discussion activity in which students examine the role of beliefs in helping them make decisions about fundamental issues in their lives. They will then consider whether there is a general pattern in their responses which could be considered a world view.

This activity is a concept development activity intended to help students understand that change to basic belief systems and to the world view of society is difficult for many people. Students will consider the problems involved in changing some basic aspects of life and from these, they will make generalizations and draw inferences about the change process.

Activities Which Help the Students Apply the Concepts they have Learned to Historical Situations

This activity is a concept application activity where students will look at theories of history dealing with change in attempt to discover why a society such as Rome would fail.

This a concept application activity in which students will look at a scenario describing life in fifth century Europe and then make decisions about how they are going to deal with this reality.

In this activity students are "born" into a certain class by a lottery, and then they have to negotiate how they are going to live with each other and share the extremely scarce resources. As part of this situation, they have to face the reality that conditions will not change for a long time, and that they have to find some meaning and purpose in the midst of a rather miserable existence.

This activity is intended to help students understand the feudal social organization. In this activity students will have to establish the social relationships between the power groups and social classes. They will do this by negotiating with each other about how wealth and power ought to be shared.

Students in this activity will be asked to look at the life of the social classes in medieval society from the perspective of the social class they are representing. Their task will be to decide what changes they would like to see and what changes they would block if they had the power to.

In this activity the teacher should have the students examine a list of generalizations about the Medieval way of life and decide whether they are accurate. A sizable group of students from the lower class will become city dwellers making their living through trade. These people will need changes in the social system and the traditional system will have to decide how to react.

Students in this activity will have to deal with the calamities that struck Europe in thirteenth century. They will decide what is the best course of action to take and then compare their predictions with the historical record.

In this activity the common people will confront the power of the aristocracy in an attempt to force significant change onto the feudal social organization. The other players (king, Church, rich townspeople) will have to decide which group they will support.

Additional Activities Which can be Used for Enrichment

This activity is designed to familiarize students with the location of Europe and some of its major geographical features.

Core Content

The content and objectives which appear in **highlighted print** should be considered core material.

Suggested Class Time

The Concept of World View

Two hours

World view is a comprehensive conception or image of reality and of humanity's relation to it.

The Concept of Change

Two hours

The general factors which can influence individuals within a culture to accept change.

The Development of the Medieval Worldview

Four hours

- Development of the Catholic World View
- Development of the Medieval World View
- Technological Change

The Development of an Urban Society

Four hours

- The Rise of New Monarchies
- Environmental & Technological change
- The Growth of a New World View

Adaptive Dimension

Seven hours

Total Class Time

Nineteen hours

With the remainder of the material not marked core, teachers may choose to work through all, some or none of these items. This material should be seen as an opportunity to individualize instruction for students with different levels of intellectual ability and motivation. They may also choose to substitute locally developed material in optional areas where appropriate. Such material should reflect community interests and must also meet the conceptual, skills, and values objectives.

Learning Cycle

Unit Two Change

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                    ┌─────────────────────────────────┐
                    │  Environmental        Social     │
                    │  Pressures    ─────  Pressures   │
                    │                  │               │
                    │                  ▼               │
                    │           Response of            │
                    │           Belief Systems         │
                    │                  │               │
                    │                  ▼               │
                    │           Develops a             │
                    │           world view             │
                    └─────────────────────────────────┘
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Evaluation:
What is the significance
of change in the
twentieth century?

Development of a

Change from the:
Roman world view
to the
Medieval world view
to the
Renaissance world view

Conceptualization
of the change
process

Application of the concept
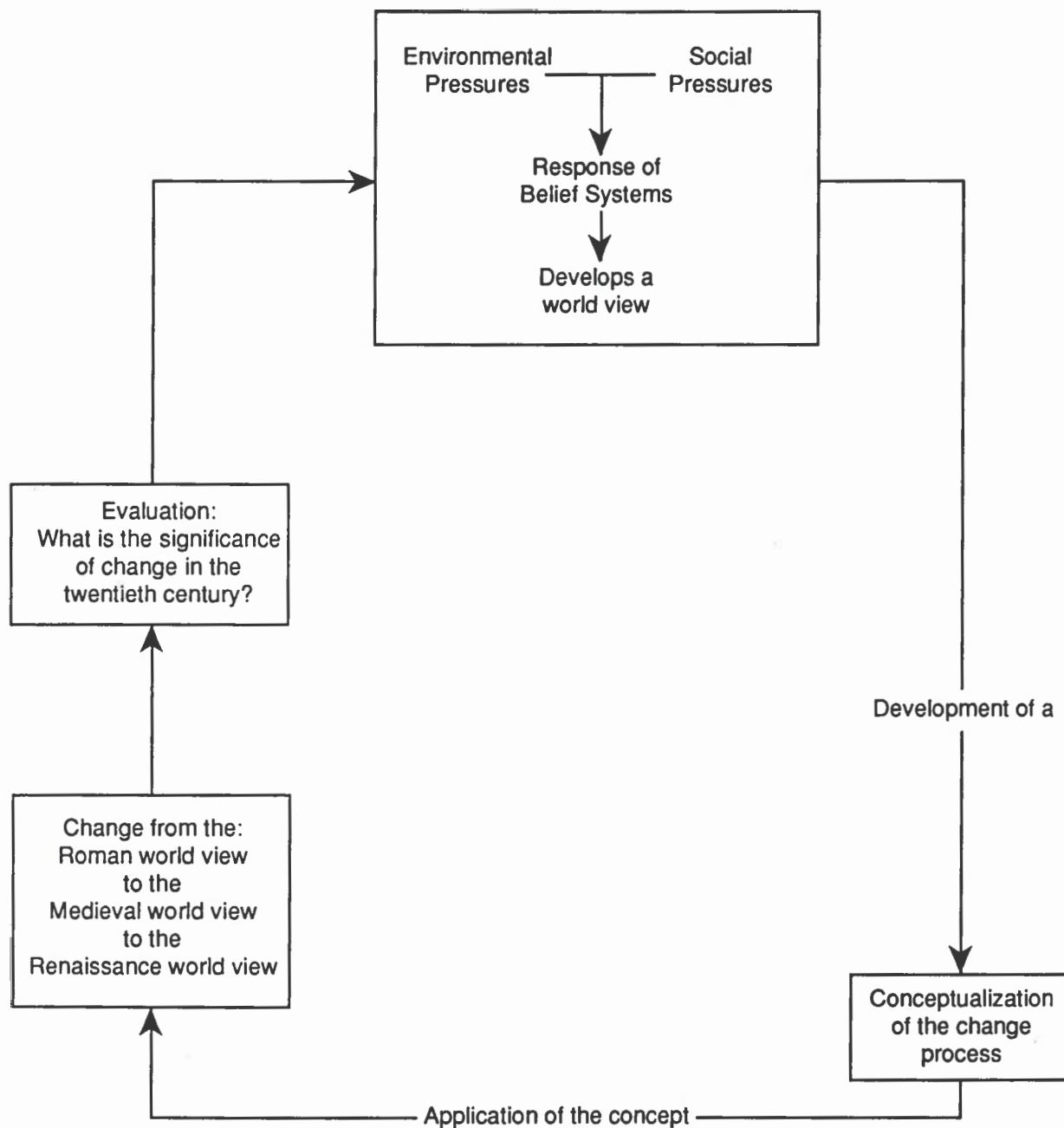
The Concept of World View

Activity One

Concepts	Skills	Common Essential Learnings
belief system	categorizing	communication
world view	classifying	independent learning
social organizations	generalizing	

This is a concept development activity intended to help students understand the role belief systems play in the lives of people. It is a discussion activity in which students examine the role of beliefs in helping them make decisions about fundamental issues in their lives. They will then consider whether there is a general pattern in their responses which could be considered a world view.

Knowledge Objectives

The students will:

- know that individuals accept a belief system as a guide for behaviour;
- know that individuals within societies accept a consensus about what is an acceptable belief system;
- know that a world view is a comprehensive conception or image of reality and of humanity's relation to it; and,
- know that a world view is a distinctive way of looking at reality and creates a context for living.

Skills Objectives

The students will:

- practise expressing a point of view with sincerity without disregarding the feelings of others;
- learn to use a grid as a way of categorizing and classifying information; and,
- learn to state a pertinent generalization.

Values Objectives

The students will:

- appreciate the role beliefs play in human behaviour;
- appreciate that there is a tension between the beliefs of individuals and the collective beliefs of the majority; and,
- develop a respect for evidence and a preference for more data before making a generalization.

Have students in small groups come up with specific ways of addressing the following issues/problems in life:
- making friends;
- getting married;
- establishing the roles of husband and wife in marriage;
- giving & receiving gifts;
- drugs in school;
- corporal punishment;
- drunk driving;
- child abuse;
- environmental degradation;
- etc.

On the chalkboard create a grid with the following categories:

Addressing the issue of	Basic Beliefs	Generalization of a World View
Making friends: • be friendly • share • accept others • show you care • think of other's interests	People will respond to kindness People want friends People need love and acceptance Making friends requires giving of oneself	Love, respect, and friendship are fundamental aspects of being human; therefore, humans should respect one another, and treat one another as they wish to be treated.

Have each group place under the "Addressing the Issue of" category or column how they would approach the issue.

- Once this has been done have the groups, in a class discussion, compare their responses to the issues (emphasize that this is not intended to decide whether one group or person is right or wrong) consolidating similar responses and grouping different responses.
- Then in a class discussion decide what the fundamental beliefs behind the behaviours are and place them in the basic beliefs category.

Review the concept of generalization and ask the students to look for a generalization or tendency in the beliefs that were under the basic beliefs category on the grid.
- Ask each group to come up with a generalization they think they can defend.
- Have the students share their generalizations and decide which they think should go in the generalization column. Below are two examples of world view generalizations.
  - Scientific/technological: a world view that explains how to deal with the natural world for the benefit of humanity; for example, the use of scientific medicine to treat illnesses.
  - Individualism: a world view that says each person should be responsible for his or herself first, then be concerned with others (e.g. family, friends, nationalities) second; for example it is important to be successful, choose one's own mate, work hard to get ahead, etc.

Evaluation

Once this has been accomplished distribute the student information sheet entitled **Critical Attributes of the Concept of World View** and have the students test their generalizations about a world view against the critical attributes. To help them do this, have the student make up a grid something like the one below.

Critical Attributes of the Concept of World View	Does the scientific/ technological world view...	Does individualism...
Does the generalization provide a fairly complete picture of reality?		
Does it meet the needs of people for survival, security, friendship/love, respect, self-fulfilment?		
Does it help people feel more secure with each other?		
Does it make people less confused by or afraid of things they cannot directly control?		
Does it define an individual's relationship to the surrounding world?		
Does it define what is important for maintaining or improving life?		
Does it provide a "natural" and "believable" knowledge which is accepted and shared by members of the cultural group?		

Assessment: Once the students have finished analyzing world views on the grid above, have them write a short paper defining what they believe to be the basic world view of this society.

Student Information Sheet

Critical Attributes of the Concept of World View

A World View:

- provides a fairly complete picture of reality;

- meets the needs of people (survival, security, friendship/love, respect, self-fulfilment);

- helps people feel more secure with each other;

- makes people less confused by or afraid of things they cannot directly control;

- defines an individual's relationship to the surrounding world;

- defines what is important for maintaining or improving life as it is understood; and,

- provides "natural" and "believable" knowledge which is accepted and shared by members of the cultural group.

- Does your generalization about a world view provide a fairly complete picture of reality?

- Does it meet the needs of people (survival, security, friendship/love, respect, self-fulfilment)?

- Does it help people feel more secure with each other?

- Does it make people less confused by or afraid of things they cannot directly control?

- Does it define an individual's relationship to the surrounding world?

- Does it define what is important for maintaining or improving life as it is understood?

- Does it provide a "natural" and "believable" knowledge which is accepted and shared by members of the cultural group?

The Concept of Change

Activity Two

Concepts	Skills	Common Essential Learnings
belief system	categorizing	personal and social values and skills
world view	classifying	critical and creative thinking
change	generalizing	independent learning
	inferencing	

This activity is a concept development activity intended to help students understand that change to basic belief systems and to the world view of society is difficult for many people. Students will consider the problems involved in changing some basic aspects of life and from these, they will make generalizations and draw inferences about the change process.

Knowledge Objectives

The students will:

- know that as individuals adapt to environmental and social pressures, the cultural patterns of society will also adapt;
- know that the dominant world view of a particular society is so thoroughly accepted by most individuals that it seems like common sense or truth;
- know that fundamental changes to basic beliefs underlying a world view are not readily accepted;
- know that tensions can develop between the advocates of the status quo and the advocates of change; and,
- know that individuals in every society have to reach a consensus about what is acceptable and unacceptable.

Skills Objectives

The students will

- practise using their personal experience as the basis for understanding a concept;
- learn to use the critical attributes of concepts as the basis for categorizing and classifying data;
- practise categorizing and classifying information;
- practise categorizing and classifying concepts and ideas as a basis for making reasoned inferences; and,
- practise drawing generalizations about societal behaviour from factual material.

Values Objectives

- empathize with the concerns of people having to deal with environmental and social pressures;
- appreciate the need for reasoned discussion and debate in dealing with controversy; and,
- appreciate the role of beliefs in providing guidance and standards for dealing with uncertainty and ambiguity.

To get the students thinking about the significance of change, ask them to consider how they would react to changes in the following areas.
- Raising the minimum driving age to twenty.
- Raising the pass mark in your school to 75%.
- Extending the school day from five hours to eight hours.
- Banning the use of the personal automobile because of energy shortages.
- Forcing men to stay home and take care of the children.
- Banning body checking and fighting in hockey.
- Banning the consumption of alcohol in society.
- Adopting strict gun control legislation.
- etcetera.

Ask the students to make a list of areas or beliefs in which they would find it very difficult to accept change.
- Suggest that they try to think of those things that provoke strong emotions like happiness, satisfaction, pleasure, etc.
- Ask them to consider how they would react to change in these areas.
- Have them make a list and see if they can categorise them in some way. Below is an example of one possible categorization.

Area of Life	Emotional Reaction	Reaction to Change
The "right" to drive an automobile	• Feelings of pride, independence, importance • Anger and resentment at anyone who tries to interfere with this "right"	A fiercely negative reaction to anyone who would try to limit the freedom to drive

Listed below are some areas where major change could occur in the student's lives.
- Have the students consider the changes they would be willing to make in their personal lives and the changes they would try to bring about in society in order to prevent some of the following problems.

Illness and suffering in society.
- life style diseases (lung cancer, alcoholism, etc.).
- traffic injuries.
- sports injuries.

Environmental issues.
- environmental pollution.
- acid rain.
- global warming.
- nuclear warfare.

Human rights.
- discrimination against women.
- discrimination against the elderly, the physically disabled.
- discrimination against ethnic groups.

Explain the adjustment process to change. (Note: the student information sheet, **The Concept of Change**, which follows this activity, contains this information).

- **Denial** is the stage at which the person completely rejects the change. Any acceptance of change at this stage is coincidental.
- **Acknowledgment** of change occurs when the new idea is given some credence and recognition.
- **Acceptance** of change means that more of one's behaviour centres on the new approach than the old.
- **Defence** of change occurs when the old idea is seen as wrong and the new idea is basically common sense.

Have the students in groups take an area of change and try to figure out how individuals and society in general might go about learning to accept a change they were not very happy with.

• As a way of analyzing the relationships students might use a grid like the one on the following page.
  • Two important categories of change (reactions to change and influences for change) are used to set up a grid which will let the students work out relationships in the change process.
  • Along the top are the three influences which force individuals and societies to deal with change: environmental change; contact with another culture; and changes from within a culture such as technological innovation.
  • Along the side are the reactions by people to change which are on a continuum ranging from flat denial of any change to complete acceptance and defence of the change.

Using an example like acid rain students can see that:
• for a long time society has denied the existence of the problem (denial);
• then it said "well maybe there is a problem, but let's do some more research but not do anything that will cost jobs: (acknowledgement);
• people began to accept that something had to be done before the environment changed permanently and before it injured people's health permanently (acceptance); and,
• most people now believe that the emissions which cause acid rain must be drastically reduced, despite the expense (defence).

Reaction to Change	Influences for Change		
	Impact of Environmental Change	Impact of New Cultural Ideas	Impact of Technological Change
	Example: Acid rain	Example: police wearing turbans	Example: automobile
Denial/Rejection of the change			
Acknowledgement of change			
Acceptance of change			
Defence of change			

Types of Change

Change occurs in two basic ways:

• Evolutionary change: change which comes about as the result of gradual development or growth and which often is the result of a design or plan.
• Revolutionary change: change which is sudden and complete

Have the students consider:
• which type of change is easier to accept in the short term and in the long term
• which type of change would cause more disruption in society

As a conclusion to their analysis have students classify the areas where society will find change easy, difficult, or impossible to accept changes in.

The Change	Easy (why is it easy?)	Difficult (why difficult?)	Impossible (why impossible?)

Students could then draw some initial inferences about the change process which can then be tested against the experience of other societies at other times.

Student Information Sheet

The Concept of Change

Reaction to Change

- **Denial** is the stage at which the person completely rejects the change. Any acceptance of change at this stage is coincidental.
- **Acknowledgment** of change occurs when the new idea is given some credence and recognition.
- **Acceptance** of change means that more of one's behaviour centres on the new approach than the old.
- **Defence** of change occurs when the old idea is seen as wrong and the new idea is basically common sense.

Influences for Change

There are three general factors which can influence individuals within a culture to accept change:
- if the natural environment changes or the culture moves to another environment, then new cultural adaptations are required;
- any contact between two societies with different cultural patterns will result in cultural change; and,
- technological change will result in adaptive changes to a whole range of cultural patterns within a society.

Types of Change

- Evolutionary change: change which comes about as the result of gradual development or growth and which often is the result of a design or plan.
- Revolutionary change: change which is sudden and complete.

The Failure of the Roman World View

Activity Three

Concepts	Skills	Common Essential Learnings
time	categorizing	personal and social values and skills
timelines	classifying	communication
change	generalizing	critical and creative thinking

This activity is a concept application activity where students will look at theories of history dealing with change in attempt to discover why a society such as Rome would fail.

Knowledge Objectives

The students will:

- know that throughout history individuals have had to change their beliefs in order to accommodate change;
- know that individuals within societies accept beliefs about how best to deal with basic needs and issues;
- know that people within society try to find a pattern or system from their beliefs which gives meaning and direction;
- know that when change comes to one aspect of a society's belief systems, change will occur in other aspects; and,
- know that individuals within societies resist changes that challenge their world view.

Skills Objectives

The students will:

- learn to create and use a classification system which provides a basis for gathering and grouping data in patterns for interpretation; and,
- learn to state a pertinent generalization based on critical examination of relevant information.

Values Objectives

The students will:

- appreciate how beliefs give structure and direction to society; and,
- appreciate that history is a means of finding guidance for contemporary issues.

Review with or ask the students to do a time line covering the time span of Rome and outlining some of its major achievements.
• Based on this data ask the students to think about what would cause such a successful civilization to collapse in Western Europe.

As part of the discussion have the students consider the notion of progress or the lack of progress in history. Should time lines
• slope upward - showing historical progress?
• slope downward - showing continuous historical decline?
• be seen as a spiral or a wave showing a repetition of progress and decline?

After giving the students some background information on the situation Rome faced (ca. A.D. 200-500), ask the students to consider what model of timeline discussed above would best apply.
• how might a Roman living in the fifth century see history?
• how might somebody in the 1990's see that history?
• why might the views be different?

Then move to a discussion about why civilizations fail after a period of time.

The student information sheets which follow provide several theories of why Roman civilization failed. Have the students read and evaluate these theories.

Student Information Sheet

Gibbon's Theory on the Decline and Fall of the Roman Empire

Edward Gibbon was a great admirer of classical civilizations. He believed that the Roman empire was one of the most glorious, if not the most glorious, empire in history. How then, he wondered, could such a great empire fall into ruins?

Gibbon grew up in the 18th century during the Enlightenment, a period of history which celebrated reason and despised religion. Gibbon thought Christianity was not based on reason at all, but was merely foolish superstition.

Gibbon combined his love for Rome and his scorn for Christianity and found what he believed was the answer to his question of why Rome fell. He argued that Christianity promoted weak values such as humility, gentleness, non-retaliation, and forgiveness. These were hardly the qualities necessary for an empire which needed to depend on military power to stay together. In addition, Gibbon argued that Christians are more concerned about a future life in heaven than they are about life on earth, so naturally their contribution to earthly life is minimal.

According to Gibbon, Christianity also had the effect of drawing people's energies and attention away from Roman society and toward the church. People gave their time and money to the church. The lives of many individuals were devoted to the church, preventing them from being part of the economic, political, or military life of Rome. As a result, the church flourished but the state began to weaken. Eventually the Roman empire began to support the church financially. This took even more resources away from the government bureaucracy and the military.

To summarize, Gibbon argued that Christianity caused Rome to lose its pride, vigour, and strength because it promoted weak values and drew attention and resources away from the important aspects of Roman society. Christians, Gibbons argued, were "the secret enemies of their country."

Student Information Sheet

Lot's Theory on the Decline and Fall of the Roman Empire

Ferdinand Lot, a twentieth century French scholar, argued that Rome fell because of economic troubles. Lot believed that the abundance of slave labour in Rome prevented the economy from developing. The availability of cheap labour in the form of slaves discouraged the development of labour saving methods.

Although the Romans possessed technological skill, they never developed an industrialized economy. The Roman aristocracy owned land, and were content to earn their money by having slaves farm the land. As a result, Rome had to purchase most of its manufactured goods from other countries. Rome traded natural resources in return for manufactured goods, but according to Lot they eventually had to import more and more, while at the same time they had less and less to export.

The invasion of Germanic tribes hastened the fall of Rome. According to Lot, these invasions cut Rome off from its sources of imports. A large number of people in Roman cities were traders and middlemen. Without trade, these people had no work to do. They were forced to leave the cities and look for work elsewhere, perhaps on a farm. Many of these former city dwellers knew little about agriculture, and were only concerned about growing enough for their own needs. As a result, Rome's economy becoming increasingly rural and isolated from the rest of the world.

With the cities collapsing and the countryside producing only enough food for its own needs, the government was unable to collect the taxes it needed to support its bureaucracy and army. With the economic base destroyed, it was only a matter of time until the empire fell altogether.

Student Information Sheet

The Theory that Unstable Government led to the Decline of the Roman Empire

Many historians have argued that Rome collapsed because its government was weak and unstable. Most of the government's power was centred in one person - the emperor. This system worked well when a competent emperor was in power. But when the emperor was incompetent, the whole empire suffered, and incompetent emperors were not uncommon. There is even evidence that several Roman emperors were insane. There were a number of other problems associated with the emperors.

- There was no peaceful and reliable way to choose a new emperor once the old one died. This led to a great many divisions within the empire.

- There were always people who envied the emperor's power. If they felt strong enough, they would attempt to assassinate or overthrow the emperor. This also created great instability. In a 50 year period during the 3rd century, more than 20 emperors came to power. Almost all of these were assassinated.

Although the emperor had a lot of power, there was one thing he could not always fully control - the military. Sometimes military leaders turned their troops against the emperor. Other times military leaders tried to establish their own countries in areas of the empire which they were supposed to be defending.

Governments also failed to successfully deal with economic changes from the late third century on. As the empire became more expensive to govern, taxes were increased. However, the taxation system was extremely unfair; the burden of taxes fell mostly on the poor. In addition, the collection of taxes was corrupt. The job of tax collector was sold to the one who bid highest for it. The tax collectors would then overcharge the taxpayers and keep the extra money for themselves. The government in Rome did nothing to discourage this practise. Eventually the tax burden became so difficult that people either stopped paying or stopped working all together. This was particularly true for farmers, who were taxed so heavily that many of them actually quit farming altogether.

According to many historians, Rome fell as a result of these and other economic and political factors.

Student Information Sheet

Environmental Theories

There are a number of uncommon, but interesting explanations about why Rome fell. Below are a few of them.

- A medical doctor speculates that lead poisoning may have contributed to the downfall of Rome. According to this theory, eating and drinking from lead containers, and drinking water that flowed through lead pipes caused widespread lead poisoning.

- A few writers have argued that plagues and diseases were constantly afflicting Rome, resulting in hundreds of thousands of deaths. Rome was especially vulnerable to disease because it was a centre for trade; goods flowed into Rome from most parts of the known world. According to this theory, the resulting decline in population weakened the country militarily and economically to the point that Rome could no longer defend itself from barbarian invasions.

- Some have argued that environmental degradation led to the downfall of Rome. According to this argument, farmers knew nothing about soil conservation. They planted crops on a continuing basis so that the fertility of the soil was eventually exhausted. This resulted in poor crops, food shortages, and a breakdown in rural society.

The Development of the Medieval World View

Activity Four

Concepts	Skills	Common Essential Learnings
cultural change	predicting	independent learning
social organizations	using personal experience	critical and creative thinking
value systems		
power		

This a concept application activity in which students will look at a scenario describing life in fifth century Europe and then make decisions about how they are going to deal with this reality.

Knowledge Objectives

The students will:

- know that over the centuries a great many people have had to migrate and adapt to new conditions;
- know that a major cause of change is the modifications that occur when one culture comes into contact with another;
- know that a world view is a distinctive way of looking at reality and creates a context for living;
- know the role of economic and social systems within a society;
- know that the sources of power are the control of numbers, organization, resources, and information; and,
- know that power can be expressed through force, authority or tradition, and influence or charisma.

Skills Objectives

The students will:

- learn to predict likely outcomes based on factual information; and,
- practise using their personal experience as the basis for an initial understanding of a concept.

Values Objectives

The students will:

- appreciate that cultural diversity often leads to enrichment and change; and,
- appreciate that the roots of Canadian society are many and varied.

An introductory exercise to this activity would be to use a timeline to show how over the past 2000 years there have been mass movements of people (see the student information sheet entitled **Examples of Large Migrations of People Throughout History**.

- Discuss the various mass movements of people to get students thinking about (without necessarily drawing any final conclusions):
  - why people migrate?
  - how the new environment affects people?
  - how new culture affects people?
  - some of the implications for cultural change of different cultures coming together.

Have the students imagine life as a peasant farmer some time in early Medieval times. The student information sheet **Life in Fifth Century Europe After the Collapse of Rome** provides a brief description of the situation they would be facing.

After the students have figuratively put themselves into this situation, distribute the student information sheet entitled **The Major Characteristics of the Germanic Culture**.

Then break the students into five groups representing the Germanic social organization:
- tribal chiefs;
- war chiefs;
- young warriors;
- freemen; and,
- serfs.

- Have each group consider what sources of power are available to them
  - resources
  - numbers
  - organization
- and the ways in which they can use them to get what they want
  - authority
  - influence/charisma
  - force

Note: the student information sheet **Power** provides a brief review of this concept.

- Have each group meet separately to decide what kind of social organization they think is necessary in this situation.
- Then have them meet as a group to decide collectively what kind of social organization they will create to meet their basic needs.

Student Information Sheet

Examples of Large Migrations of People Throughout History

At various times in history there have been extraordinary movements of people which have had a tremendous impact on the course of history. In many cases historians don't know with any certainty what caused these movements. Often things like overpopulation, food shortages, crop failures, environmental degradation, and climatic changes are suggested as possible reasons

Below are some examples of mass migrations. Make a timeline and mark these migrations on it.

4th to 6th centuries - Germanic tribes

Throughout this period Germanic tribes, both small and large, pushed into Europe from western Asia. They spread throughout most of Europe, causing disruption wherever they went. Some of the invading tribes were more violent than others, but most became a cause of terror for European inhabitants. The Germanic invasions were a constant source of trouble for the Roman empire during this period. Although the mighty Roman Empire had once crushed much greater threats, internal weaknesses prevented the Romans from effectively blocking the Germanic invasions. Consequently, the Germanic peoples overran most of the empire. They even attacked and destroyed much of Rome in 410 A.D.

9th century - Vikings

Throughout most of the 9th century, Vikings from Scandinavia mounted invasions into Europe. At first they moved in and plundered an area, then left. Later they would return to settle the area. The Vikings were savage and skilled warriors, as well as outstanding sailors. Vikings landed in North America in the late 9th or early 10th centuries.

12th and 13th centuries - European peasants

Throughout this period hundreds of thousands of peasants moved into unoccupied, forested areas of Europe. It is uncertain why they moved, but the moves were almost certainly organized and planned by powerful lords. The peasants would move into a new area, clear the forest and establish a new manor. Much of Europe's forests were cleared during this time.

19th and 20th centuries - Europeans

Migration from Europe during this period was the greatest movement of people in history. Between 1815 and 1932, over 60 million people left Europe. Most headed to North America, although some settled in Africa, Australia, India, and Latin America.

Post World War II - East Europeans

Following World War II, the Soviet Union occupied Eastern Europe. More than 13 million people from Eastern Europe and the Eastern portion of Germany either fled to the west or were forced out by the Soviet army.

Student Information Sheet

Life in Fifth Century Europe After the Collapse of Rome

The central authority that Rome represented has broken down and now no one else seems to
have the power to do anything to change the situation:
- life is an unending struggle for enough to eat;
- life expectancy is very short;
- adult lives are on the order of 30 to 40 years;
- life is violent and uncertain;
- life seems to be controlled by superstitious forces; and,
- serfs feel quite powerless to protect themselves against the world.

Student Information Sheet

The Major Characteristics of the Germanic Culture

The Germanic peoples were divided into many different tribes, or folks. The members of the folk were united by the belief that they all descended from a common ancestor. Each folk had its own set of customs and practises.

The folks were led by chiefs or kings. The king was recognized as the strongest and bravest warrior. He was elected by the male members of the most powerful families within the folk. The king was served and protected by a loyal group of youths known as the "war band." It was made up of the bravest young men within the folk. These young men pledged themselves to fight with the king, and to never leave the battlefield without him. Although the war bands began as groups of equals, ranks within the bands eventually developed so that some warriors had a higher rank than others. The high ranking warriors began to acquire land and wealth.

Most Germans were freemen who either owned a small plot of land which they farmed themselves, or else they rented land from a large landowner but retained their independence. The society also contained a class of serfs who were neither free nor slaves. These people were bound to a certain section of land and could not be sold apart from it.

Every person within a German folk had a particular monetary value which was based on the person's actual or potential military value. In general, men of fighting age had the greatest value, women of child-bearing age came second, children came third, and the aged had the least value. Each person's monetary value was established for the purposes of law. The penalty for any crime committed equalled the victim's monetary value. Thus if a warrior whose life was valued at $100 was injured or killed, the accused had to pay $100 to the victim or his family. If the accused refused to pay or if the victim or his family refused to accept the money, a blood feud was declared between the families of the victim and the accused.

Student Information Sheet

Power

People have the power to do what they wish when they have:

- control of resources;
- control of numbers of people;
- control of an organization; and,
- control of information

People can express this power through:

- the use of authority;
- influence and or charisma; and,
- the use of force.

The Development of the Catholic World View

Activity Five

Concepts	Skills	Common Essential Learnings
beliefs	decision making	independent learning
values	predicting	communications
social organizations		
world view		

In this activity students are "born" into a certain class by a lottery, and then they have to negotiate how they are going to live with each other and share the extremely scarce resources. As part of this situation, they have to face the reality that conditions will not change for a long time, and that they have to find some meaning and purpose in the midst of a rather miserable existence.

Knowledge Objectives

The students will:

- know that for many people life can be a hard unrewarding struggle;
- know that people searching for meaning and purpose in their lives turn to religion as a source of comfort and hope;
- know that the basic beliefs and values of religion play a large role in the way the fundamentals of life are viewed;
- know that the Church's main sources of power were information and organization which was expressed through authority and tradition, influence and charisma; and,
- know that through these sources of power the Church was able to attract large numbers of people to Catholicism which gave it the added power of numbers and resources.

Skills Objectives

- learn to identify a situation in which a decision is required; and,
- practise identifying alternative courses of action and predicting the likely consequences of each.

Values Objectives

- empathize with people who in coping with difficult conditions still search for meaning in their lives; and,
- appreciate the role of spirituality in people's lives.

Spend a few moments placing this time and situation on the class timelines (the fifth century). Make sure that the students understand the amount of time involved in seeing any major change to the way of life during this period.

Hold a lottery to see what station in life the students will find themselves born into:
• the aristocratic class (4 students out of 30);
• the knight class (5/30);
• the freeman class (5/30);
• the trading class (1/30); and,
• the serf class (15/30).

Once the students have found out their fate, they can make a choice as to whether they wish to accept what life has offered or whether they will pay the cost of attempting a change. Give the students brief outlines of the options that are open to them:
• building a stockade/castle for protection;
• becoming a knight;
• joining a monastic order and living behind high monastery walls for protection;
• becoming a trader that takes goods from city to city to trade to make a profit;
• becoming a free farmer and carving an independent farm out of the wilderness; or,
• becoming a serf living under the walls of a castle and paying rent to the lord;

To help the students think about their choices realistically have them do a cost-benefit analysis of any change they are thinking of making.

Role	Benefits	Costs
Lord	admission closed (a.c.)	?
Knight	admission very limited	danger of war
Priest	admission limited (a.l.) - security, free from harsh physical labour of peasants	chastity, church discipline, poverty
Monk (a.l.)	security	chastity, personal and church discipline, poverty
Nun (a.l.)	security	chastity, personal and church discipline, poverty
Banker	high standard of living	very risky
Trader	freedom	very risky
Freeman	independence	very risky, no military protection
Serf	safety	loss of freedom, poverty

Given this brutal situation, have the students ask themselves what their realistic alternatives are. Should they:

- do something to improve their standard of living in the belief that the future will get better shortly?
- look to their lord for protection because that is the surest source of security in their lifetime?
- look to the Church for protection and support in the hope that the next life will be better for those who are obedient to the teachings of the Church?

In a class discussion have the students evaluate the alternatives above. Is it realistic:

- to expect an increase in living standards?
- to expect that the wealthy will share their wealth?
- to have faith that the next life will be better?

Ask the students to come up with a generalization about the role of religion in this world view.

Discuss with the students the kind of world view likely to develop here.

The Development of the Feudal Social Organization

Activity Six

Concepts	Skills	Common Essential Learnings
social organizations	negotiating	personal and social values and skills
belief systems	predicting	independent learning
values		critical and creative thinking

This activity is intended to help students understand the feudal social organization. In this activity students will have to establish the social relationships between the power groups and social classes. They will do this by negotiating with each other about how wealth and power ought to be shared.

Knowledge Objectives

The students will:

- know that political power is based on the sources of power;
- know that political power is the ability to make and carry out decisions;
- know that feudalism was a system of government in which those who possessed landed estates also possessed political power;
- know that two major sources of power are the control of information and the control of numbers of people;
- know that the influence and charisma of religious beliefs are also important methods of channelling power; and,
- know that there was a tension between the power of the Church expressed through religious influence and the secular powers expressed through force.

Skills Objectives

The students will:

- learn to participate in persuading, compromising, debating, and negotiating in the resolution of conflicts and differences; and,
- practise predicting likely outcomes based on factual information.

Values Objectives

The students will:

- appreciate the role of beliefs and values in determining a society's concept of social order; and,
- empathize with the dilemmas of people in other societies at other times.

Have the students remain in the groups which were established during the last activity. Then provide the class with the following information.
- One of the aristocrats (from an ancient War Chief/Noble family) has royal ancestors which entitle her/him to claim to be known as king.
- Another aristocrat has joined the Church and was selected to be Pope. This person, as Pope, now represents the Church and by tradition represents St. Peter and God's higher moral order.
- The other two aristocrats are descended from ancient Roman families who control large fortified estates, large armies, and wield great power in society.

Explain that these people need resources if they are to have the power to make and carry out decisions. The resources and needs of the king, the nobles, and the church are described in the student information sheet entitled **Scarcity of Resources**.
- The king's resources come mainly from the land he directly controls.
- The invention of the stirrup has made knights dressed in armour as the major fighting resource (they serve the same role as the modern tank). These men are expensive to equip and maintain but they are critical for both king and nobles.
- The main source of wealth in this economy is produced by the serf working on the land.

The King can attempt to order his/her nobles to contribute warriors, horses, gold, grain, meat, wool, (plus the necessary carts to transport the goods) and educated people to run the government.

The Pope says it is the Christian duty of everyone to tithe (give 10% of one's income to the church).

Give the nobles a list of the resources that they have or could get from their areas. Be sure the nobles understand:
- that they have few of the resources the king wants;
- that surrendering these resources to the king will mean a real hardship for everyone on the manor;
- that the king is far away in terms of travelling time because the roads are poor and dangerous;
- that the Church holds access to the holy sacraments which must be done regularly as part of being obedient to God's will; and,
- that being excommunicated results in eternal damnation.

Have the Church, the king, and the nobles negotiate by messenger the power relationships between them i.e. how much power the king will have to demand resources from the nobles, how much power the church will have over the actions of kings and nobles, etc. Before the negotiations begin, distribute the student information sheet entitled **Power** to give those who are negotiating some idea of their bargaining power.
- The students could also discuss what is realistic about the power of serfs, freemen, women, and traders.
- Those students who play these roles should only be allowed to listen to the aristocrats who make decisions about their fates.

Student Information Sheet

Scarcity of Resources

King's Resources/Needs

The King at this period in history is really just a large lord. His resources include large landholdings, a small army, livestock, horses, etc., but he doesn't have any more of these resources than some other lords.

In order to administer and defend the territory over which he is king, the king needs more of the following resources:

- horses
- gold
- grain
- cattle
- sheep
- scribes (men who could read and write)
- iron
- iron craftsmen to make armour
- blacksmiths
- warriors

Note: Very few people at this time were able to read and write; almost all of those who could were monks or high ranking church officials. The scarcity of educated men made them very valuable.

Good warriors may have been even more valuable than scribes. The invention of the stirrup signified a major advance in war technology. It forced the development of more sophisticated and more expensive armour which turned the knight into the equivalent of the modern tank. The arms race that resulted meant that knights were very expensive to equip and maintain.

Nobles' Resources/Needs

The resources of the nobles were not much different than those of the kings, that is, they had barely enough to look after themselves, let alone trying to supply the king. The nobles felt that if they supplied the king with what he was demanding, they would become too weak to feed and protect themselves; they needed everything they could produce. Moreover, the king was often some distance away and roads were extremely poor and hazardous.

The nobles were more concerned about meeting their obligation to the church. Part of a Christian's duty was to give 10% of his produce to the church. If this 10% donation, known as a tithe, was not given, the noble could be excommunicated from the church. This meant that the noble became a social outcast while alive and was damned to hell after death.

Church's Resources/Needs

The resources of the church are great:

- most of the educated people in Europe work for the church;
- the church has a very strong organization, with strong central leadership;
- there are a large number of people who work for the church; and,
- most people in European society at this time are loyal to the church.

The needs of the church are just as great:

- at this point the church's main source of income is from donations (tithes); the church depends heavily on this supply of produce and money;
- the church has a small land base so relies on others to supply most of the basic necessities for survival; and,
- needs a constant supply of people for the priesthood and to serve in monasteries

Standard of Living on the Manors

For Serfs

Most serfs had a very miserable life. Finding enough food to survive was a constant struggle. Of the food that was available, there was very little variety, such that most people did not get enough of the many important vitamins and nutrients they needed. As a result of this very poor diet, illness and death were very common.

Not only was food inadequate, but so were clothing and shelter. Most serfs suffered from inadequate clothing, both in quality and in quantity. Serfs lived in crude shacks along with their livestock. In winter, the livestock were a blessing because they contributed some body heat to the drafty, uninsulated shacks. However, livestock often had to be slaughtered during the winter because there was not enough food for them.

For Nobles

Although the nobles were privileged compared to the serfs, their standard of living were still very low according to modern standards. Regarding the quality and quantity of food, nobles only had it a little better than the serfs; that is to say, during a famine, the nobles would be the last to starve, but they would still starve.

The nobles enjoyed houses that were somewhat larger and better constructed than those of the serfs. Nevertheless, nobles still had to suffer with drafty, uninsulated walls, and leaky roofs. They just didn't have to suffer as much as the serfs did.

Thus, despite their status and wealth, nobles still lived a pretty miserable life. For almost all people in Europe during this time, life was nasty, brutish and short.

Student Information Sheet

Power

Church's Power

- The church had control of numbers, since almost everyone in European society at this time belonged to the church.

- The church had a tremendous organization, with strong leadership and many levels of authority reaching out into all aspects of society.

- The church had control of information, since almost all of the educated people capable of reading and writing worked for the church.

King's Powers

The king's powers were very limited. He controlled:

- limited resources - whatever he owned and whatever other nobles would give him;
- limited numbers - the serfs on his land, his warriors, and any warriors the nobles would provide him with; and,
- a limited organization.

The king expressed his power through:

- limited influence and charisma;
- limited authority; and,
- limited force.

Nobles' Powers

The powers of the nobles were great within the areas they controlled, but minimal in other areas.

Within their own property, nobles had power over:

- numbers
- resources
- organization

This power was expressed through:

- force
- authority

The Medieval World View

Activity Seven

Concepts	Skills	Common Essential Learnings
social organizations	decision making	personal and social values and skills
belief systems	summarizing	independent learning
values	generalizing	critical and creative thinking
change	negotiating	
	hypothesizing	

Students in this activity will be asked to look at the life of the social classes in medieval society from the perspective of the social class they are representing. Their task will be to decide what changes they would like to see and what changes they would block if they had the power to.

Knowledge Objectives

The students will:

- know that the control of resources is the key to economic and political power;
- know that in the short term when people have to choose between freedom and security the choice will likely be for security;
- know that people will do what seems reasonable under the circumstances in order to survive and make a living;
- know that innovation depends upon the need and the freedom to be creative; and,
- know that the acceptance of an innovation depends on whether the incentive for acceptance outweighs the power of tradition.

Skills Objectives

The students will:

- learn to identify a situation in which a decision is required;
- practise making summaries of data which can be used for comparison purposes;
- practise making generalizations based on a critical examination of the relevant information;
- participate in persuading, compromising, debating, and negotiating in the resolution of conflicts and differences; and,
- learn to develop a hypothesis on the basis of data.

Values Objectives

The students will:

- appreciate the role of beliefs and values in determining a society's economic organization.

To begin this activity, there are several things the students can do to give them an idea of what life was like during the early medieval period.

To give the students an idea of the medieval world view and how it contrasts with their own world view, have them draw a picture of the skyline of a modern town or city. Once they have done this, show them what the skyline of a medieval town looked like, as it appears on the teacher information sheet.

Another activity which will help students to better understand the medieval world view is found on the student information sheet entitled **A Medieval Story**. Ask the students to write a brief ending for this story, explaining what they think will happen. Then read them the actual ending, which is contained on the teacher information sheet with the same title.

Divide the students into six groups representing aristocrats, knights, priests, millers, serfs, and traders. There are student information sheets which describe what life was like in the early middle ages for each of these groups. Have the students read the information sheet which corresponds to their group.

Once students have a picture of the life these people led, they should decide:
• what needs to be done within society at this point in history;
• what resources (power) they have that could be used to change society; or,
• whether they would want to use their power to prevent change from occurring.

Give the students the information sheet entitled **Changes** and ask them to consider from their point of view how would they react to using their wealth and power to make these changes. Then have the students meet as a class to decide which of these changes are acceptable and will be adopted by the society (make sure that each group understands its sources of power and uses them to achieve its ends).

When the students have made all of the above decisions have them examine whether their reaction to change emphasized:
• a religious world view where humans should obediently endure pain and suffering in this life as a preparation for life in paradise?
• a warrior world view where men should be able to fight with each other gloriously for honour and power?
• a farming world view where people work peacefully to produce enough wealth so that everyone has enough to eat and a place to keep warm?
• an urban world view where people earn their living as craftsmen and traders?
• or some combination of the views above?

Once students have made their decision begin the era of the Viking invasions.
• Give the students the information sheet entitled **Impact of the Viking Invasions**.
• Discuss how this will affect the decisions made by the societies (France, Germany, and Britain) most directly affected.
• Discuss with the students where power came to reside in this society at this point in history.

Teacher Information Sheet

A Medieval Town
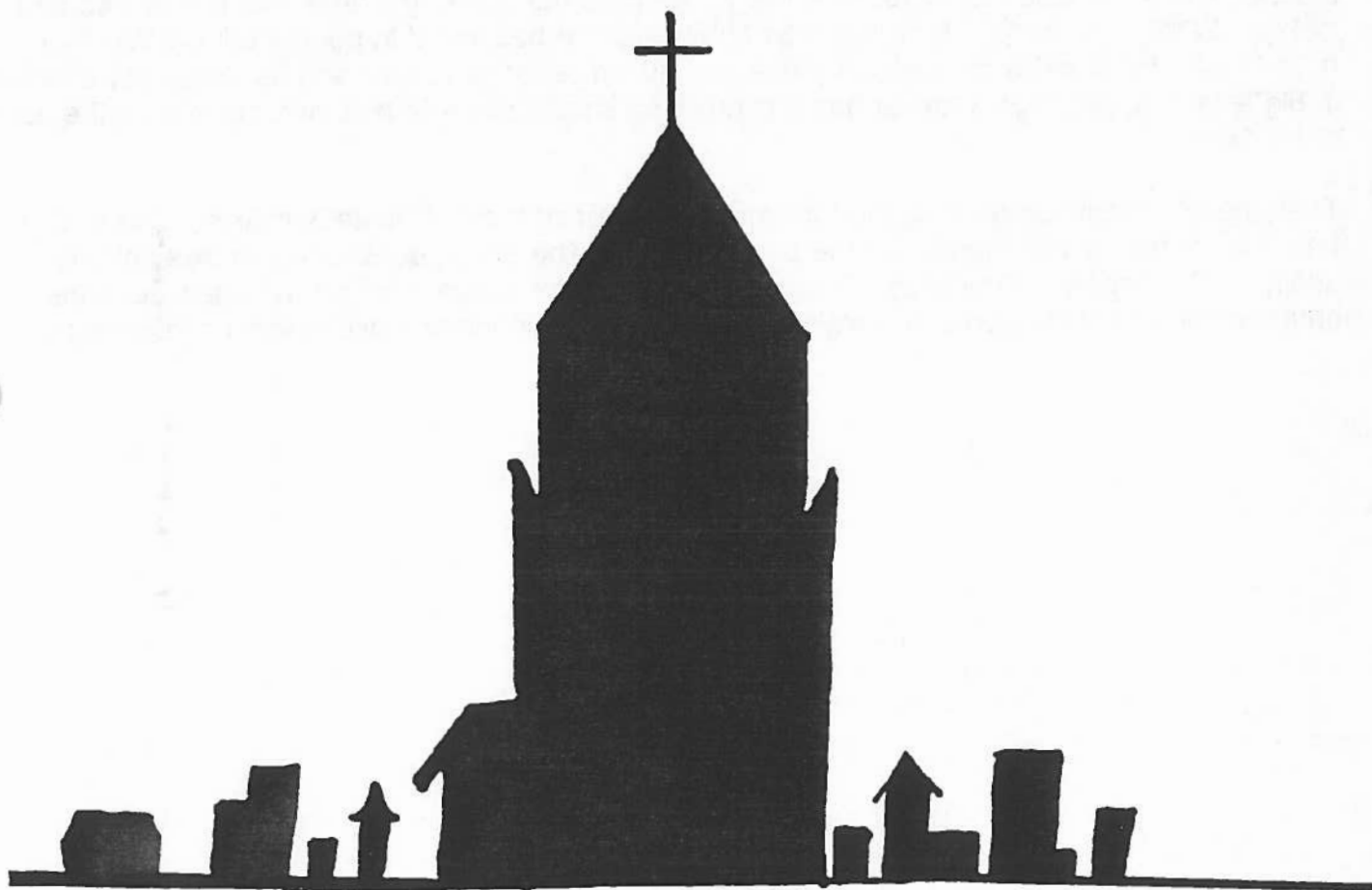
Student Information Sheet

A Medieval Story

Read the following story starter, and then provide an ending for it.

A merchant is returning from the fair, where he has sold all his merchandise and gained a large sum of money. Pausing in a city ... he finds himself before a church, and goes into the chapel to pray to the mother of God, Holy Mary, putting his purse beside him on the ground. When he rises, he forgets the purse and goes away without it.

A burgher [resident] of the city is also accustomed to visit the chapel and pray before the Blessed Mother of God Our Lord, Holy Mary. He finds the purse and sees that it is sealed and locked. What is he to do? If he lets it be known that he has found it, people will cry that they have lost it. He decides to keep the purse and advertise for its owner, and he writes out a notice in big letters, saying that whoever has lost anything should come to him, and posts it on the door of his house.

Then the merchant has gone a good distance, he realized that his purse is missing. Alas, all is lost! He returns to the chapel, but the purse is gone. The priest, questioned, knows nothing about it. Coming out of the chapel, the merchant finds the notice, enters the house, sees the burgher who found the purse and says to him, "Tell me who wrote those words on your door."

Teacher Information Sheet

A Medieval Story

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When the merchant has gone a good distance, he realized that his purse is missing. Alas, all is lost! He returns to the chapel, but the purse is gone. The priest, questioned, know nothing about it. Coming out of the chapel, the merchant finds the notice, enters the house, sees the burglar who found the purse and says to him, "Tell me who wrote those words on your door." And the burgher pretends he knows nothing and says, "Good friend, many people have come here and put up signs. What do you want? Have you lost anything?" "Lost anything!" cries the merchant. "I have lost a treasure so great that it cannot be counted." "What have you lost, good friend?" "I lost a purse full of money, sealed with such and such a seal and such and such a lock." Then the burgher sees that the merchant is telling the truth, so he shows him the purse and returns it to him. And when the merchant finds the burgher so honest he thinks, "Good sir God, I am not worthy of such a treasure I have amassed. This burgher is far worthier that I." "Sir, he says to the burgher, "surely the money belongs to you rather than to me, and I will give it to you, and commend you to God." "Ah, my friend," says the burgher, "take your money; I haven't earned it." "Certainly not", says the merchant, "I will not take it." And he leaves.

The burgher runs after him crying. "Stop thief! Stop thief!" The neighbours take up the hue and cry and catch the merchant, and ask, "What has this man done?" "He has stolen my poverty and my honesty, which I have carefully preserved up to this moment."

Gies, Joseph and Frances. **Life in a Medieval City**. Harper and Row: New York, 1981, pp. 123-124. Used with permission.

Student Information Sheet

The Life of a Lord

The lord had three basic duties:

- to give military protection to his land and its inhabitants;
- to organize agriculture, industry, and trade on his lands; and,
- to serve the lord or lords above him (the highest lord being the king) in war.

The lord lived in a well protected dwelling. It was usually constructed on a hill or other high place, and was often surrounded by a moat (a ditch of water). Frequently it was a wooden castle, with separate rooms for servants, toilets, kitchen, and storage. However, living quarters were usually not large compared to modern standards. For example, one large room usually served as a dining room, living room, and bedroom. Windows were small and often covered to keep out the rain. Like the houses of peasants, castles were dark, drafty, and suffered from water leakage. However, lords could more easily afford candles or torches to provide some light.

The lord rose at dawn to attend to his work. This involved supervising the various operations of the manor. The main role of the manor was to produce food for the lord and his subjects. Since the lords needed food as much as the serfs, the lords were usually quite active in managing the agricultural output of the manor. If the manor produced a surplus of food, it was the lord's responsibility to find a market for it. Other tasks included organizing the construction and maintenance of bridges, roads, canals, etc. The entire burden of planning and organizing this work was the lord's, unless he could find a very able serf to whom he could entrust some of this authority.

The lord also served as judge of the village. Although often the serfs were allowed to stage their own trials, the lord remained the ultimate authority in these issues. He also profited from fines paid by offenders.

The lord's wife was equally busy organizing the household. She bore and raised many children, and made sure they developed proper manners. She also supervised the many tasks of the servants, such as making butter and cheese, doing laundry, preserving meat, preparing meals, making clothes, etc. If her husband went to war she took over the financial and military management of the manor, and was expected to supply his financial needs during the war. If her husband died and they had no son, she inherited the estate, but was expected to remarry within a short time in order to provide her estate with military protection.

Student Information Sheet

The Life of a Knight

Knights were part of the nobility class. Most knights were children of lords. The knight was a professional fighter. His duty was to protect the weak, the poor, and the church.

As the children of lords, knights had a fairly comfortable childhood. The children of lords, unlike peasant children, were not required to work until the age of seven or eight. At that time they were usually sent to the house of a friend of relative. There the youth would act as a servant to the lord and would receive his training as a fighter. This was his period of education, and it was designed to teach him to be unquestioningly loyal to his lord, devoted to service to his lord, and to be courageous and fierce in battle, yet still be a gentleman. This was the code of chivalry. Knighthood was based on the ideas of chivalry, which involved the belief that war is romantic and noble. Values such as loyalty, devotion, fighting skill, courage, and respect for the enemy were all part of chivalry.

When he reached the age of 18 or 19, a knight was sent out to travel with other young knights. Since their main object was to fight, these bands of knights would rove around in search of a conflict. When they found one, they would join the battle on whatever side seemed most appropriate to them. When they weren't involved in local wars, knights travelled to tournaments in which they could test their fighting skills. The tournaments lasted for days, if not weeks, and were marked by loud parties, gambling, drinking, and prostitutes.

As a fighter, the knight was equivalent to the tank of today. His armour was almost impenetrable, such that relatively few knights actually died in combat, even if the fighting was brutal. A very small, but very significant invention increased the fighting power of the knight considerably. That invention, which came from China, was the stirrup. The rider could brace himself by using the stirrups, and thus use his full strength as well as that of the horse for maximum advantage in battle. The stirrup made jousting with long lances possible. A good knight could gallop at full speed and use his lance to send other knights flying off of their horses.

Although knights were to be the protectors of the poor, the weak, and the church, they often terrorized as much as they protected. In the midst of drunkenness or battle, the code of chivalry was not always followed.

After travelling for two or three years, young knights returned home, still fully dependent on their father. Until his father died, a young knight could neither marry nor inherit property. This was a period of frustration for knights, because they could not get on with the business of marrying and setting up their own estate until their father died.

Student Information Sheet

The Life of a Priest

Priests played a very important role in village life. Many of the activities of the manor centred around the church. For example, within hours of being born, babies were taken to the priest to be baptized. If the child survived, the priest would later confirm him or her as a Christian. People confessed their sins to the priest and received from him the Eucharist (eating of bread and drinking of wine to recall Jesus' death) at Easter and Christmas. Marriages were also conducted by the priest. Finally, the priest gave funerals and buried the dead in the church cemetery.

The church was also the centre of social life, as the religious events of baptisms, weddings, and funerals were cause for great feasts and parties. These and other celebrations were held in the churchyard.

The priest held mass every Sunday and on Holy days. During the mass he taught Christian values and beliefs. A popular theme was the awful suffering that sinners would experience in hell.

Other duties of priests included such things as: blessing fields in the spring, before seed time, by sprinkling water on them; and reading orders and messages from the king and church authorities.

Student Information Sheet

The Life of a Serf

Serfs rose with the first morning light to begin their long day. A typical breakfast may have included bread, an onion, a piece of cheese, and some beer. Bread was the main ingredient of the medieval diet. The bread was hard, coarse, and black. It was usually made with barley, millet, and oats. Beer was the main beverage and all female serfs had to know the proper proportions of barley, water, yeast, and hops to make it. During a hard day of work in the field, the average serf may have drunk fifteen litres of beer or even more.

Both male and female serfs worked in the fields, but females took care of most of the household chores. These included raising the children, milking the sheep (or cows), taking care of the chickens, shearing sheep, spinning wool, making clothing for the family, tending the garden, baking, preparing meals, and preserving food. Women also managed the household economy. The family depended on the mother's wise management of food supplies to keep them fed from month to month and year to year.

The average peasant family lived in a windowless, one room house with a dirt floor. Furnishings usually included a fireplace for cooking, one or two beds, a table, several stools, and a chest for storing clothes. Not surprisingly, these houses were dark, drafty, and sooty, and had leaky roofs. A shed was sometimes attached to the house. This served as a storage place for tools and a shelter for animals. Sometimes animals had the run of the house.

A typical noon meal consisted of stew made with cabbage, onions, peas, turnips, and seasoned with a bone, or perhaps a bit of meat.

Male serfs worked in the fields most of the time. However, they were obligated to work part of the time for the lord of the manor. The lord would have other work for the serfs besides field work. This might include taking care of the lord's animals, cutting down trees for firewood, digging a well, and constructing or maintaining the lord's buildings and roads.

The male peasant would return home at sundown, after putting in ten or twelve hours of hard physical labour. The evening meal, which would usually be leftovers from lunch, would then be eaten. Following that, the family would retire for the evening.

Although the life of a serf was mostly one of hard work, there was some time for entertainment. Loud and boisterous dances were held with the aid of much liquor.

Student Information Sheet

The Life of a Trader

The trader had a very rough and uncertain life. He was almost always travelling in hostile territory, and constantly feared attack by roving bands of knights. On some occasions knights might pass by him and completely ignore him, intent on bigger spoils. On other occasions they might steal his goods, and beat or even kill him.

The trader had to get permission and had to pay a special toll to enter each manor. Other manors might charge him an extra toll for using their roads.

The trader survived from day to day on the food he could purchase with his goods. Very few traders prospered; most just survived. Being a trader was a very dangerous occupation with few financial benefits. As a result, very little trade occurred, and most of the trade that did occur was very localized.

Student Information Sheet

The Life of a Miller

Around A.D. 1000 the profession of a miller was just beginning to develop. An abundance of rivers in northern Europe helped to promote the use of the water mill as a source of power for grinding (milling) grain. Some windmills were also developed. When mills first began to be used, the miller was perhaps just an ordinary serf whose duties included running the mill. However, as mills became larger and more sophisticated, more specialized knowledge and skills were required to operate them. Thus millers were one of the first group of specialists to emerge during the medieval period.

Although in the Mediterranean world the mill was only used for grinding grain, in Northern Europe the mill became a source of power for numerous industries. Water power came to be used for forge hammers and forge bellows, which were used to make iron. It was also used to power saws and lathes.

Student Information Sheet

Change

From the point of view of the medieval person you are representing, would you be willing to accept changes in the following areas?

technological

military technology
• arming more knights
• building castles

agricultural technology
• making plows
• creating a better harness
• shifting land to raising sheep for wool
• moving from a two field rotation to a three field rotation

milling technology
• improving water and wind mills
• new applications of mill power

transportation technology
• stern post rudder
• using magnetism for navigation

social

• rights for the serfs
• role and rights of women in society
• usury - allowing people to lend money and charge interest on it

economic

encouraging trade
• allow serfs to leave the land to go to towns to become craftspeople and traders
• absolute right of free passage for traders
• buying & selling for a profit

religious

• building large cathedrals
• changing the role of women in the Church
• having an inquisition to deal with heresies

Student Information Sheet

Impact of the Viking Invasions

Just as Europe was beginning to settle into a feudal pattern, the Viking invasions threw Europe into chaos. During the ninth and tenth centuries, Vikings from Scandinavia thoroughly terrorized the population over much of Europe. The Vikings were brutal and ruthless. They would enter a village and kill all of the people in it, with the possible exception of the most attractive women, who would be kept for pleasure or sold as slaves.

The Vikings were so successful in their attacks on Europe because there was no central authority which had the force to stop them. The church, of course, was the most powerful authority, but its power was expressed through influence and charisma, not force.

The Viking invasion made European society even more militaristic and reduced most peasants to serfdom. Prior to these invasions some farmers had retained their freedom. But during the invasions the need for defence and protection became so great that all peasants turned themselves over to lords in return for at least some protection and security. For their part, lords built better defences and spent more money equipping and training knights.

The Development of an Urban Society

Activity Eight

Concepts	Skills	Common Essential Learnings
change	classifying	personal and social values and skills
social organizations	generalizing	independent learning
		critical and creative thinking

In this activity the teacher should have the students examine a list of generalizations about the Medieval way of life and decide whether they are accurate. A sizable group of students from the lower class will become city dwellers making their living through trade. These people will need changes in the social system and the traditional system will have to decide how to react.

Knowledge Objectives

The students will:

- know that significant changes in the natural and social environment can lead to significant change within a society;
- know that change in one part of a society will affect other parts of society;
- know that the development of a new class within a society will result in the perception of different needs and wants;
- know that social change can result in the development of new social institutions;
- know that the development of new beliefs and related institutions can conflict with established beliefs and institutions;
- know that the basic beliefs and values of religion which play a large role in determining a world view are viewed are slow to change; and,
- know that individuals within organizations will strenuously resist any change to the beliefs on which their organization is based.

Skills Objectives

The students will:

- practise using a timeline as a classification system to analyze data;
- practise testing generalizations on the basis of data;
- practise presenting information in a logical manner to show valid relationships;
- practise expressing a point of view with sincerity;
- practise listening to another point of view and giving it credibility;
- learn to draw a consensus about a complex situation with a number of alternatives; and,
- learn to develop a hypothesis on the basis of data.

Values Objectives

The students will:

- appreciate that environmental and technological changes have important consequences for individuals and societies; and,
- appreciate the difficulties involved in reconciling traditional beliefs with change.

Review with the students the major historical events and choices that have been made so far and place them on their timelines.
- Point out to the students that times have been good with the wealth and the population growing rapidly. People are prosperous and optimistic.

Keep your students in the groups they were in for the last activity, and have them consider a list of generalizations about the medieval world view found on the student information sheet entitled **World View Generalizations**.

After they have become familiar with these generalizations, give the students a brief description of how trade has grown and ask them to consider how the medieval world view (which they looked at in the previous activity) helps or hinders trade and commerce.
- Out of the group which was representing the serfs create a relatively large group of burghers (city dwellers), some of whom are craftspeople, some who are business people, and some who are rich bankers.
- Have the other groups consider whether the new way of life is useful and what their reaction to it should be.

Hold a conference in which some issues such as the following are discussed:
- should usury be allowed?
- should women be allowed to own property and participate in trade?
- should traders have the right of free passage anywhere in the kingdom?
- who should have authority over towns?

Once students have made some decisions about how to incorporate the growth of trade and towns into medieval society, have them consider what shifts in world view this might cause. Ask each group to look at their student information sheet again and compare the statements about the **urban world view** with those about the **medieval world view**. Have them respond to these changes from the perspective of the group they are representing i.e. priests, serfs, etc.

Have the students consider where at this point in history the power resides. Have them analyze why the power seems to be shifting from the aristocracy to the king.

Student Information Sheet

World View Generalizations

The Medieval World View

Beliefs

- Human nature is evil and must be controlled or else chaos will result.
- Everyone is born to a certain position and must retain it for life.
- Society must be hierarchical because some are fitted to lead and others to follow.
- Progress is not possible because of humanity's fall from grace.
- Change always tends to be for the worse rather than better.
- The purpose of life is to prepare for the next life.

Values

- The Church oversees the king who oversees the lords who oversee the peasants.
- Everyone must be bound by vassalage for life.
- Obedience is the most important value of life.

Ideas

- The best ideas are those that come from the traditions of the past.
- Land is the source of all wealth.
- Wealth should be used for the glory of God.
- It is proper to set one's price according to the status of the buyer.
- It is wrong to charge interest on money lent to someone else.

The Urban World View

Beliefs

- Human nature is evil and must be controlled or else chaos will result.
- Everyone is born to a certain position but may work to move to another position.
- Society still must be hierarchical but based more on what one contributes and earns.
- Progress may be possible by creating more wealth.
- The purpose of life is to qualify for the next life.

Values

- The king should maintain law and order so trade can flourish.
- Everyone should be bound by honour and loyalty.
- Obedience is an important value but so is making a living.

Ideas

- The best ideas are those that come from the traditions of the past.
- The source of wealth is the profit earned from trade.
- Wealth should be used to create more wealth.
- Charging interest on money lent to someone else is no worse than charging rent on something.
- It is proper to set one's price at whatever someone is willing to pay in order to make a profit.

Environmental and Technological Change

Activity Nine

Concepts	Skills	Common Essential Learnings
belief systems	predicting	personal and social values and skills
world view	classifying	independent learning
change	hypothesizing	critical and creative thinking
	inferring	

Students in this activity will have to deal with the calamities that struck Europe in thirteenth century. They will decide what is the best course of action to take and then compare their predictions with the historical record.

Knowledge Objectives

The students will:

- know that as environmental conditions change individuals and societies will have to adapt to these new realities;
- know that people within society use their religious beliefs to give meaning and purpose to life;
- know the impact of technological change on the organization of society;
- know that change in one aspect of society will affect other aspects of society; and,
- know that the technological and economic systems of society are interrelated with the social and cultural systems of society.

Skills Objectives

The students will:

- learn to identify alternative courses of action and predict the likely consequences of each;
- practise using a classification system to organize data for interpretation;
- practise developing a hypothesis about historical behaviour; and,
- learn to question the assumptions on which inferences have been based.

Values Objectives

The students will:

- appreciate that there are areas in the human condition where emotion counts for as much as reason;
- appreciate that people under high levels of stress may react with what seems to observers to be unreasonable behaviour; and,
- appreciate that technological change has important consequences for society's belief systems.

Review with the students the new urban world view which resulted from greater prosperity.
• Given the greater prosperity of Europe, ask the students to consider the expectations for the future that each of the following groups would have.
  • the church hierarchy
  • the king
  • the nobles
  • the rich townspeople
  • the craftspeople
  • the peasants

Once students have done this, give them the student information sheets which describe the disasters that struck medieval Europe just as they were getting used to greater prosperity.

Ask the students to review the situation from the perspective of the group they represent i.e. priests, peasants, nobles, etc., and decide what the problems are, what they would like to see happen, and what they will do to try to bring that about. See the table below for an example.

Group	What are the problems?	What do they want?	What are they going to do about it?
Nobles	the peasants will not remain on the land; they have too much freedom	they want the peasants to remain serfs; to stay on the land and fulfil their traditional obligations	they will knock a few heads i.e. use force to intimidate the peasants
Peasants	the nobles have turned to violence and crime as a way of life; they cannot be counted on for protection	they want freedom from serfdom so they can choose to be peasant farmers or to move into the city without fear of attack from the nobles	they will put their pitchforks into the backs of a few nobles to deliver this message

Once students have completed this exercise, explain to them that they have essentially been making predictions about what is going to happen next based on their understanding of the historical situation. Discuss with them the world view they used when making their predictions i.e. did they analyze the situation from the perspective of a traditional medieval world view, from the evolving urban world view, or from a twentieth century world view?

Student Information Sheet

Catastrophe: The Four Horsemen of the Apocalypse

After a period of considerable growth and relative prosperity from 1000 to 1300, Europe experienced a series of disasters which had a dramatic impact on European society. These disasters helped set the stage for the emergence of the modern world.

The four horseman of the apocalypse, an image from the bible in which angels of plague, war, famine, and death plunder the world, became a popular theme in art and literature. No wonder, since Europe had plenty of plague, war, famine, and death to go around in the 14th century.

Student Information Sheet

Famine

Early in the 14th century, weather patterns began to change. An unusual number of storms and other strange phenomena resulted in reduced harvests, and on several occasions, total crop failures. This environmental disaster led to severe famines in which thousands of people died of starvation. At the same time that people were being ravaged by crop failures and hunger, various epidemics began striking cities and dealing severe blows to the population. Livestock were not excluded from epidemics. In 1318, just one year after most of Europe had gone through a terrible three year famine, sheep and cattle were struck with a disease that drastically reduced the size of flocks and herds. In a 47 year period from 1302 to 1348, there were 20 years in which Europe experienced either very poor harvests or else total crop failures.

Student Information Sheet

The Black Death

The living conditions in medieval cities were much worse than modern inner-city slums. The cities were extremely overcrowded and extremely filthy. There was neither a sewage system nor a garbage disposal system. As a result, waste from animals and people was left in the narrow streets to rot. These extremely unsanitary conditions made medieval cities a perfect breeding ground for disease. Given that there was a great deal of contact between cities through trade, the conditions were ripe for an infectious disease to spread not just within a single city but throughout the cities of Europe.

The bubonic plague broke out in China in 1331 and was brought across the Asian caravan routes to southern Russia by 1346. In 1347 the plague came to Italy. In the next two years, it spread north throughout the rest of Europe.

The black rat was one of the main agents responsible for spreading this terrible disease. The plague is caused by a bacteria which resides in the stomach of a flea. These fleas, in turn, lived in the fur of black rats. These rats thrived on filth. They were also international voyagers, catching free rides on cargo ships and travelling from one port to another. When they stopped off to visit cities they brought their plague infested fleas with them. Flea bites were common and people thought nothing of them. But one bite from a plague infested flea resulted in almost certain death for that individual and for most of the family as well.

The disease started as a growth on the neck, groin, or armpit ranging in size from a nut to an apple. This boil caused agonizing pain. If it was lanced and the puss drained there was a possibility of recovery. The second stage of the disease was the appearance of black blotches, caused by bleeding under the skin. This was followed by violent coughing and spitting up of blood. Usually within two or three days the person was dead. The horrid manner of death was made worse by the isolation of the victims. The disease was so disgusting and revolting that with the exception of priests and nuns, few were willing to give compassionate care to the victims.

It is impossible to say how many people died from the plague. Within cities, anywhere from one-third to two-thirds of the population died from the disease. Since the rats did not spread to the countryside, most people in rural areas were not affected by the disease. Still, it is estimated that about one-third of the population of Europe died.

As you can imagine, the plague had devastating effects on medieval society. Many people saw the plague as God's judgement on society. This led some to question why a good God would allow such a horrible disease to occur. Some abandoned their faith in God as a result. In short, there was much confusion and much questioning of society. Many felt that if the plague was God's judgement, then some serious changes needed to take place to make society more pleasing to God.

Student Information Sheet

The Hundred Years' War

The Hundred Years' War, a battle between England and France, was actually fought on and off for about 127 years (1337-1453). The war had a number of causes. When the war began, the people of England believed that they were fighting for the right of their king, Edward III, to secure the French crown. Through marriage Edward had become heir to the crown. However, the French royal family refused to allow Edward to become king. Although this was the reason given to convince the public to support the war, there were other causes as well, such as the economic competition between France and England over the wool trade.

During the medieval period, war was seen as being beautiful, glamorous, and romantic. It made men noble and glorious. War was part of the aristocratic code of behaviour known as chivalry. Fighting skill, bravery, and respect for the enemy were all part of the chivalric code and war was the perfect opportunity for an aristocratic knight to demonstrate his chivalry. Prisoners were often taken in war, and could be released with a modest ransom. Often the prisoners were released with the promise that they would return to pay their ransom. They usually did because honesty and respect for the enemy were aspects of the code of chivalry.

Aristocratic knights were mounted on horses and decked out in full suits of armour. Their weapons were usually swords and lances (long spears). Serfs also fought in wars as foot soldiers. Because of the cost of armour and the importance of mobility, they did not wear full armour. Their weapons were clubs and crossbows.

At the beginning of the Hundred Years' War, aristocrats and knights flocked to the battlefield for another display of chivalric honour. However, this was to be a war that would eventually spell the end of chivalry and "knights in shining armour."

It was technological advancements which changed the way war was fought and perceived. The longbow was developed by the English in the 11th century and was used effectively against the French. Three arrows could be shot from a longbow for every one shot from a crossbow. The hail of arrows which English serfs fired at French knights did not penetrate their armour, but killed their horses and forced them to fight on the ground, which was both awkward and undignified for a knight. They made easy targets for the British knights atop their horses.

The other technological development which helped to destroy chivalry and knighthood was gunpowder. The British used cannon in battle against the French. It caused great fear and confusion, and ultimately made armour obsolete.

The drawn-out war had drastic impacts for both English and French. The scale of the war was enormous compared to most medieval battles. At least 10% of the population from both countries was directly or indirectly involved in the war. This disrupted the economies of both countries. The war also proved to be extremely expensive. To pay for it, nobles and kings began to raise the taxes of the serfs and poorer classes in the cities. This led to inflation, which became a serious problem in both France and England.

Fur-Collar Crime

The Hundred Years' War had provided employment and adventure for thousands of aristocratic knights. After the war was over, many of these knights returned home and found they had nothing to do. Many turned to crime as a way of raising money to support their aristocratic lifestyle. This became known as "fur-collar crime", so called because of the miniver fur which only the nobility were allowed to wear on their collars.

Knights rode around the countryside and terrorized rich and poor alike. They plundered villages, demanded protection money from defenceless serfs, and kidnapped the rich and demanded a ransom. Most of this crime went unpunished because there were few authorities strong enough to stop it. When they were arrested, knights used threats, bribes, or connections to escape punishment.

Student Information Sheet

Human Behaviour Under Stress

The troubles of 14th century Europe were just too great for many people to handle. Many responded in bizarre ways to what seemed to be the end of the world.

Some who believed that the plague was a punishment sent by God whipped and beat themselves in an attempt to pay for the sins of themselves and society as a whole. Others took to heart the words "eat, drink, and be merry, for tomorrow you die," and engaged in mass orgies and other expressions of bizarre sexuality. Still others turned to a life of severe self-discipline and frenzied religious expression.

Overall people became extremely pessimistic about life. The art and literature of this period reveals a morbid preoccupation with death. As well, people began to doubt and question all of the values and beliefs that medieval society was based on.