February
River Uses

So far in the *Adopt-A-Salmon Family* program students have explored many of the physical and biological features of watersheds. In the month of February, attention is turned to the historical and present day ties that exist between river systems and human culture. In a very real sense, rivers are the thread that connects generations across the temporal landscape of New England.

A Land of Ice: The shape of New England's countryside is largely the result of **glaciers**. As recently as 15,000 to 20,000 years ago, a great sheet of ice covered the region as far south as Long Island, New York. In some places the glacier was up to one mile thick. As the ice advanced from the northwest it carved the landscape. Mountains, valleys, lakes, and rivers were left behind as the glacier retreated.

At the height of the last glaciation, up to twenty percent of the earth's water was ice - a significantly higher percentage than is the case today. Ocean levels were much lower than they are today, perhaps by as much as 400 feet along the New England coast. Less water in the oceans meant more exposed land. At the time the New England coastline extended to what is now known as George's Bank.

Original Inhabitants: Some **archeologists** believe the first people to appear in North America originated from Asia, having crossed an exposed stretch of land that connected Siberia to Alaska. This "land bridge" was located where the Bering Strait is today. These first native people probably entered North America in pursuit of migrating herds of large animals, their principal food source.

Native Americans are known, through the archeological record, to have inhabited the New England region 17,000 years ago. Other than ice, the landscape at the time was primarily **tundra.** The native people lived in very small **nomadic** groups. Because much of their time was likely spent following herds of musk ox, reindeer, and mammoth, permanent settlements

The shaded region indicates that portion of the present day North American continent that was glaciated during the last ice age.

were nonexistent. Stone tools and spear points were the principal **artifacts** left behind by these ancient people.

The first form of currency in New England originated in Native American culture. Small beads made from seashells, called wampum, were used in trade between native tribes. European settlers used wampum in their transactions with the natives for fur pelts.

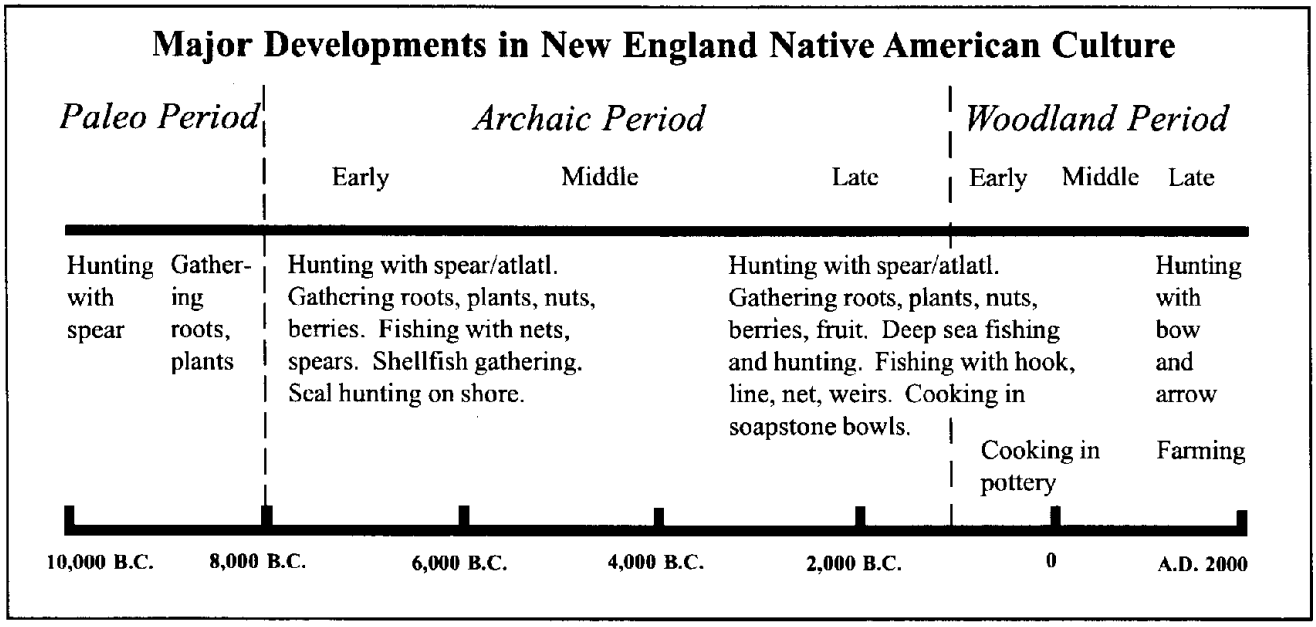
As the climate gradually grew warmer, tundra gave way to forest. Early forests were predominantly **coniferous**, later transitioning to oak and other **deciduous** species. The changes in vegetation attracted new animal species, driving many of the more cold-tolerant species further north. The natives' lifestyles adapted to these changes.

Archeologists divide New England's Native American history into several periods: **Paleo**, **Archaic**, and **Woodland**. Each period is indexed to certain major **cultural** developments recorded in the archeological record. Nomadic Paleo-Indians hunted large animals using stone spear points. The Archaic period is characterized by considerably more plant gathering, introduction of fishing (including marine species), and a continued evolution in tool-making. Farming, pottery, and more permanent settlements are characteristic of the Woodland period.

It is readily apparent, based upon the location of known archeological sites and the historical record, that rivers played an important role in Native American life. Canoes, both dugout and birch bark, were a principal means of transportation. Spring spawning runs of Atlantic salmon, shad, and herring provided a bounty of food. The **fertile** soils along rivers provided for crops of corn, beans, and squash.

Prior to European contact, many distinct tribal groups existed across the New England region. Each had a leader or **sachem**, a title that was often passed down from father to son. Agriculture and permanent settlements predominated as the way of life in the southern part of the region, while tribes in the colder north depended more on hunting, fishing, and gathering.

Tribes, many of which shared a common **Algonkian** language, frequently traded with each other. In this way technological advances were shared across the region. At different times certain tribes **confederated**, a tactic that protected them from hostile groups - whether they were other tribes or, later, European settlers.



A Transition of Cultural Dominance: Europeans, primarily from France and England, first made contact with New England's native people during the early 1600's. Most of what is known of Native American society at the time has been gleaned from the journals of early explorers, missionaries, and fur traders. Early relations between the Europeans and natives were generally friendly. In fact, fur trading forged an important economic tie between Europe and the native people.

Interest in the "New World" grew rapidly as word of seemingly unlimited natural resources reached the shores of western Europe. Economic interest in furs and expansive virgin forests were strong incentives helping to drive the rapid settlement of New England. For many of the same reasons that native people settled along rivers and coastal waters (fertile soils, commerce and transportation), the colonists desired much of the same land. Such dynamics frequently resulted in armed conflicts. As the colonial population continued to grow, the natives were forced off their lands in growing numbers.

European-introduced diseases had a catastrophic impact on New England's native people. Lacking the natural defenses to fight such diseases, they died by the thousands throughout the seventeenth century. Tragically, entire tribes were wiped out.

The ultimate consequence of European colonization of New England was the gradual loss of Native American culture. The availability of European manufactured products to the natives led to less dependance on traditional crafts. Native languages became a thing of the past in an English dominated culture. Christianity competed with traditional native spiritual beliefs. In a very real sense, Native American culture became a memory.

A Revolution of Industry: The early colonial economy in New England was largely agricultural. A thriving timber industry supported an equally healthy ship building industry. Such economic vitality continued to draw European settlers to the shores of New England. As forests were cleared and limited acres of farm land claimed, people began to settle in towns, which quickly grew into cities.

The earliest cities were built along the coast, frequently in proximity to the mouth of a river. Rivers were the equivalent of our modern-day highway system. Trees, felled hundreds of miles inland, were floated downriver to coastal seaports in huge **log drives.** Many rivers were changed by the construction of **canals** and **locks**, providing people and products safe passage up and downstream - except during the cold winter months.

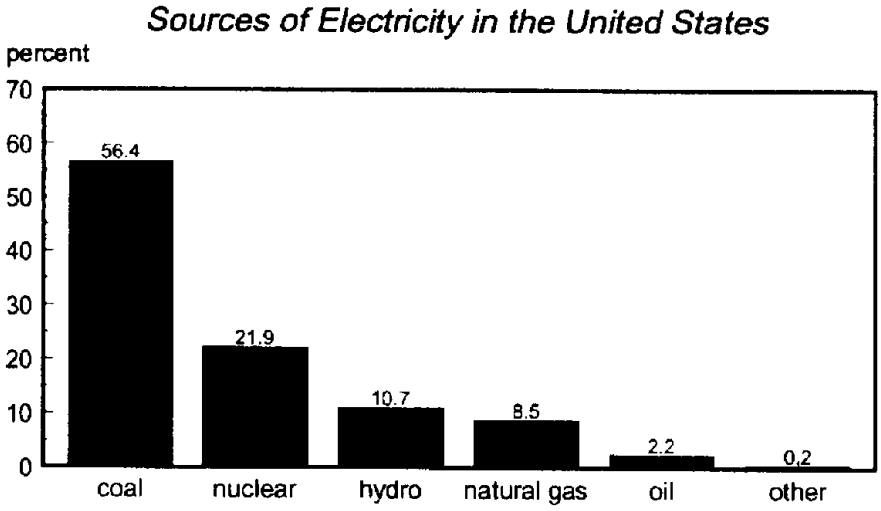
During the early 1800's New Englanders were still buying many of their products, including textiles, from Great Britain. European products were cheaper. New England was still a region of "cottage industries," where products were made in private homes and small businesses, not in large and more efficient factories.

Francis Cabot Lowell, an enterprizing Boston businessman, introduced the **power loom** to New England in 1814. Similar to the weaving machines he had seen on a trip to England, his power loom made mass production of textiles possible. In the early 1820's Lowell and his company, The Boston Manufacturing Company, built the first large scale textile mill in what is today Lowell, Massachusetts. The mill was totally self-contained and had the ability to process cotton, wool, and flax from "bale to bolt." Similar mills soon appeared in cities across the region.

Situated along rivers, mills were powered by the **mechanical energy** of moving water. Many of the canal systems, orginially built for river transportation and **commerce**, were put to a new use, channeling water to mill **turbines**.

In many cases, cities were actually created by the mills. Company owners built churches, stores, and boarding houses for their employees.

In Lowell, Massachusetts the first mill workers were women from nearby farms. The "mill girls," as they were known collectively, made more money in the mills than they could doing



farm work. Women dominated mill workforces into the mid-1840's. As a result of an increasingly competitive market, mill owners began to pay lower wages and demand longer work days. As a result, women began to leave the mills, forcing employers to search for other sources of labor.

Immigrant laborers were the backbone of New England's mill workforce for much of the **Industrial Revolution**. In Lowell, Massachusetts Irish immigrants were the first group of people to work in the mills. French-Canadians, Greeks, Poles, Portugese, and Russian Jews were among the later **ethnic groups** to occupy these same positions. Similar shifts in the composition of mill workforces occurred throughout New England. It was this era that defined **melting pot**.

Many of the mill cities in New England fell on hard times in the early part of this century. The discovery of electricity meant that mills no longer had to depend on water power. Textile mills moved south to take advantage of cheaper labor and fuel costs. Since cotton was grown in the south, expensive transportation costs disappeared. As mills closed, high unemployment and urban decay were often left behind.

Some of the mill towns of the past have had an economic and cultural renaissance in recent years. New industries have brought jobs back to New England. Perhaps more importantly, many people have re-discovered their cultural heritage, taking great pride in who they are and where they live. One need only attend the annual Folk Festival in Lowell, or similar events, to witness this sea change. This cultural celebration has also occurred among the region's remaining native people, some of whom live on tribal **reservations**.

Rivers in Our Time: Despite centuries of physical manipulation and overuse, rivers continue to play a central role in all of our lives. As recently as twenty years ago, New England had some of the foulest rivers in the country. The story of the Nashua River (in eastern Massachusetts and southern New Hampshire), is the clearest example of how bad things were - *AND* - how good they can be again. Prior to its clean-up, the Nashua's water was often red, yellow, blue, or green depending on which dye lot the mills were releasing into the river on a given day. Today the Nashua runs clear, a shining example of what citizen activism, coupled with government regulation and private sector cooperation, can do to reclaim a dirty river.

Today's rivers serve many of the same cultural purposes they have for centuries. They supply drinking water to thousands of households across the region. Industry uses river water to produce many of the products we use in our daily lives. Many agricultural fields and golf courses are irrigated with river water.

Rivers have always played a major role in the human waste stream. Their currents carry away our waste - residential, municipal, and industrial - "out of sight, out of mind." This fact is best appreciated when we consider what would happen if, for some reason, we were no longer allowed to discharge treated effluent into rivers. Where would it go?

Rivers and other water bodies also have definite commercial value. Production of electricity and aquaculture are just two of these. Both, to some degree and in different ways, have implications for Atlantic salmon restoration.

The Power of Water: With the discovery of electricity, the mechanical energy of falling water was put to a new use - a use that accounts for nearly ten percent of all electricity now generated in the United States. At present there are approximately 485 hydropower dams in New England. Some of these are quite small. Others produce enough electricity for thousands of households.

Producing electricity from river water is remarkably simple. A dam creates a deep pool of water called a **head pond** or **reservoir**. Water from the reservoir flows down through a **penstock** to a **turbine**. Falling water spins the turbine which, in turn, rotates the shaft of a generator, producing electricity. Water is then discharged from the base of the **powerhouse** through a **tailrace**, continuing its downstream journey - perhaps to another hydropower plant.

Once a hydropower plant is built and paid for, a river provides an almost limitless supply of low cost, **renewable energy**. Because most of the desirable hydropower sites in New England have already been developed, and absent some revolutionary development in technology, hydropower has probably reached a peak in its contribution to the region's electrical energy pool.

While hydropower is a *relatively* clean source of electrical energy, it does have several negative impacts on a river and, as a result, wildlife:

- **Thermal pollution:** Cool reservoir water released from the base of a dam can alter a river's normal water temperature regime downstream and influence which species of wildlife can exist there. Shifts in temperature can also influence the amount of dissolved oxygen in water - again, affecting species composition.

- **Rivers to lakes:** Many heavily dammed rivers resemble a series of connected lakes. Such changes significantly alter wildlife habitat and the composition of plant and animal communities.

14 million pounds of Atlantic salmon were produced by Maine's aquaculture industry in 1994. The industry as a whole contributes $45 million to the state's economy and employs 485 fulltime workers.

- **Barriers to migration:** The movements of migratory fish, like the Atlantic salmon, are often impeded by dams.

- **Flow fluctuations:** Dams hold back water and release it in unnatural ways (periodicity and amount). These flow fluctuations can severely impact habitat, and thus wildlife, downstream.

Growing Fish on Farms: As overfishing has depleted wild populations of many of the fish species favored in restaurants and supermarkets, a relatively new industry has stepped in to help satisfy the American appetite for fresh seafood. **Aquaculture** is an emerging industry in New England, particularly along the coast of Maine.

Atlantic salmon, blue mussels, and oysters are the present mainstays in the aquaculture industry. Researchers are developing ways to raise other species of **finfish** and **shellfish** commercially. Clams, lobsters, haddock, cod, and flounder may be important aquaculture species in the future. One company in Maine grows **nori**, a type of edible seaweed favored by the Japanese.

Atlantic salmon is the dominant aquaculture finfish. From land-based hatcheries, salmon smolts are placed into floating saltwater **net pens,** where they grow to a market size of six to twelve pounds in 16 to 24 months. The areas where the net pens are situated, generally in protected bays and harbors, are leased from the state. In 1994 1268 "acres" of water were leased from the State of Maine by the aquaculture industry.

As with many emerging industries, aquaculture has pros and cons. While the economic benefits are evident, biologists and others are concerned about:

-- **Escapement:** Aquaculture salmon that escape from marine net pens pose several potential problems. They could directly compete with wild salmon for food and habitat. By intermingling with wild fish, they could spread diseases and parasites. Questions about the impacts of interbreeding on the genetic integrity of wild stocks have been raised. Lastly, aquaculture fish that dig redds or nests in rivers could damage the redds of wild fish.

-- **Water pollution:** Some fear that excess food and fish waste from net pens contribute to degraded water quality.

-- **Aesthetic appeal:** Some people, particularly private landowners, feel that net pens are a visual intrusion on their seacoast vistas.

The industry is working with state and federal agencies to address these concerns. Aquaculture is here to stay. It takes the fishing pressure off wild stocks, brings dollars and jobs to the regional economy, and gives people something they really like - fresh seafood!

Word Power

Algonkian
*aquaculture
Archaic
*archeologist
*artifact
*canal
*carnivorous
*Christianity
*climate
commerce
*commercial
*confederation
coniferous
*consumer
*cultural
deciduous
*economy
*edible
*ethnic
fertile
*finfish
*generator
glacier
*glaciation
*gravity
head pond
*heritage
*hydroelectric generation
*hydrostatic pressure
*immigrant
*Industrial Revolution
*industry
*intermingle
*irrigation
*lock
log drive
*manufacture
*marine
*mechanical
energy
melting pot
*Native American
*natural
resources
*net pen
*nomadic
*nori
Paleo
*penstock
powerhouse
*power loom
*renewable energy
reservation
*reservoir
*sachem
*shellfish
*tailrace
*tribe
*turbine
Woodland

REFERENCES

The Bend in the River, John Pendergast, Merrimac River Press, Tyngsborough, MA, 1991

The First Peoples of the Northeast, David P. Braun and Esther K. Braun, Lincoln Historical Society, Lincoln, MA, 1994

Lowell - the Story of an Industrial City, U.S. Department of the Interior, U.S. Government Printing Office, 1992

Ninnuock (The People) - The Algonkian People of New England, Steven F. Johnson, Bliss Publishing, Marlborough, MA, 1995

Vermont's Original Inhabitants - An Elementary School Guide to Prehistory, Vermont Historical Society, Montpelier, VT, 1978

The Wabanakis of Maine and the Maritimes - A Resource Book About Penobscot, Passamaquoddy, Maliseet, Micmac and Abenaki Indians, American Friends Service Committee, Philadelphia, PA, 1989

STUDENT LITERATURE

A Gathering of Days - A New England Girl's Journal, 1830-32, Joan W. Bloss, Charles Scribner's Sons, 1979 - winner of The Newberry Medal (1980) and The American Book Award (1980)

> "Catherine's mother has died, following the birth of an infant son, and when her father decides to remarry, Catherine faces painful changes, not the least of them in herself.
>
> A provocative story for our times, carved from the granite of New England traditions, told in the form of a journal kept by Catherine Hall."

A River Ran Wild, Lynne Cherry, Harcourt Brace and Company, New York, 1992.

> The Nashua River, a culturally important body of water dating back to pre-colonial times, was once one of the most polluted rivers in the United States. This book tells the story of the Nashua, how a group of concerned citizens banded together to reclaim a lost natural resource.

Lyddie, Katherine Paterson, Penguin Books, New York, 1991

> "Her parents are gone, and her brother and sisters sent to live with other people. Lyddie Worthen is on her own. When Lyddie hears about the mill jobs in Lowell, Massachusetts, she heads there with the goal of earning enough money to reunite her family. Six days a week from dawn to dusk Lyddie and the other girls run weaving looms in the murky dust and lint filled factory. Lyddie learns to read - and to handle the menacing overseer. But when the working conditions begin to affect her friends' health, she has to make a choice. Will she speak up for better working conditions and risk her job - and her dream? Or will she stay quiet until it is perhaps too late?"

Understanding Stereotyping

Concepts: Students explore how stereotypes can lead to discrimination and otherwise unfair treatment of certain groups of people.

Objectives: Students will be able to:

1. understand what stereotypes are and where they originate and
2. identify examples of stereotyping of Native Americans in books, magazines, etc.

Subjects: Social Studies

Materials: picture books and magazines that portray "Indian" stereotypes

Word Power: stereotyping, Native American, Native, reservation, reserve

Background:

Perhaps the best way for students to begin to examine how people from one culture or group may view people of another is to learn about stereotyping, which is prevalent in our world today. Stereotypes are mistaken ideas about how a whole group of people behave, think, or live. They are wrong and dehumanizing. Often people make these generalizations without being aware what they are doing.

One incident of stereotyping by itself may not appear to be damaging to a person or group. Buy many examples may form a pattern that is damaging or offensive. Learning this can help students to understand why a person may seem overly sensitive to one incident, when in fact he or she may be reacting to a pattern of stereotyping.

Native people, as well as many other people in the United States and Canada, have been the victims of discrimination, or unfair treatment, as some are today. It is important for students to realize what can happen when a group of people is judged inferior or incapable of making its own decisions.

Finally, at the root of stereotyping and discrimination, but perhaps more difficult for people to understand, is ethnocentrism, or the attitude that "...one's own race, nation, or culture is superior to that of other ethnic groups." (New Webster's Dictionary of the English Language, 1985) It was , of course, this attitude that accounts for the behavior of those European colonists who assumed that their way of life would prevail in the New World. Each of us has a world view that is influenced by our life experiences. Most, if not all, of us are ethnocentric in some ways. But it is important to help students realize that they do have world views and values that color their perceptions of what they see and hear, and that other people may have different values and world views because of their different experiences and cultures.

Learning about other points of view and beliefs can be fun for students if they are encouraged to respect people with points of view that differ from their own. History and social studies take on new meaning if students are able to identify authors' point of view (even in so-called "objective" accounts) and can begin to separate fact from opinion.

Procedure:

1. Have students draw pictures of an Indian person and his or her home. After the drawings are completed, ask each student to point out one thing in his or her picture that shows it is a picture of an Indian person. List these on the blackboard.

2. Explain the meaning of stereotyping. Point out that stereotypes are generalizations about the way a whole group of people behave, think, or dress. Think of a stereotype that pertains to a group of which you are a part, and that you find offensive or untrue. (Strong men don't show emotion; a woman's place is in the home; certain ethnic groups are not intelligent; people from rural areas are unsophisticated; women are too emotional; men can't cook well, etc.) Then ask students if they are members of a group with which stereotypes are associated. Ask them to share these with the class if they feel comfortable doing so, and ask them to share how they feel about the stereotypes.

3. Define and discuss stereotyping. Point out two kinds of inaccuracies commonly found in stereotypes about Native people:

   (a) All Indian people have the same history, heritage, and culture. Point out that totem poles, for instance, originated with Native people in the Northwest United States and Southwestern Canada, and that Native people of the Plains of both countries were the originators of long feather headdresses. Even among the Plains peoples, different groups wore different types of headdresses. Tipis were also dwellings of Plains people, while some people in the Southwestern United States lived in adobe dwellings. (Some still do).

   (b) Nothing has changed for Native peoples over the last 500 years. Explain to your students that just as other North Americans do not eat all of the same foods, wear the same clothes, or live in the same types of houses as their ancestors of 500 years ago, so to have these things changed for Native Americans and Native people in Canada. And just because many Native people wear clothes similar to other North Americans and drive automobiles, it does not mean they are no longer Maliseet or Hopi or Pawnee. (If students have trouble understanding this, you might use an example of Japanese or Nigerian or Greek people.)

4. Examine the list on the board. Identify stereotypes, discuss them, and cross them off the list.

5. Have students look for examples of stereotypes of Native people in magazines and picture books.

6. Ask students to share with the class the next time they notice a stereotype in a movie, joke, ad, greeting card, or sign that makes fun of or insults Native people or people from other countries.

adapted from *The Wabanakis of Maine and the Maritimes, A Resource Book About Passamaquoddy, Maliseet, Micmac, and Abenaki Indians* (refer to the References section at the end of the chapter.)

Climbing Your Family Tree

Concepts: This activity challenges students to trace their own roots to find out about their family's immigrant history.

Objectives: Students will be able to:

1. interview family members about their immigrant history and
2. develop an understanding of the diverse cultural backgrounds of fellow class members

Subjects: Social Studies

Word Power: immigration, emigration

Procedure:

Conducting an Oral Interview: As a class, discuss how to conduct an oral interview for collecting family history. Make a list of questions to use during the interview. Include the following:

Who in my family first came to the United States?
Where was he/she born?
From what country did he/she come?
Why did he/she decide to emigrate?
Whom did this person marry?
What is my relationship to the person who immigrated?
What did this person do for work?

Tracing Roots: Have students interview family members to discover one person who came to the United States. Have students ask family members about photographs, special holiday traditions, favorite family recipes, songs, and family artifacts from the old country. Ask each student to tell a family story, make an ethnic recipe to share, present a holiday custom, or share family photographs.

Charting Family Immigration Patterns: Once students have tracked down one family member who immigrated to the United States, have them chart their findings, and look for patterns. Post a large, flat world map on the bulletin board, and have students do the following:

1. on a small label write their last name, the name of their immgrant ancestor, and date he/she came to this country;
2. glue the label to the end of a piece of yarn;
3. use thumbtacks to attach one end of yarn near a point on the map where the student lives, and the other end to the country from where the student's ancestor came.

Discussing Patterns: Once all of the students have strung their yarn on the map, discuss any visible patterns. What can the students discover about their classmates? About historical immigration trends?

from *Yankees and Immigrants* activity guide, Tsongas Industrial History Center, Lowell National Historical Park, National Park Service, used by permission

Reading and Making a Contour Map

Concepts: Geography and topography are important to students' understanding of the relationship between landforms, waterways, and water power. This activity familiarizes students with a contour map.

Objectives: Students will be able to:

1. look at a contour map and distinguish landforms and
2. create a simple contour map

Subjects: Geography

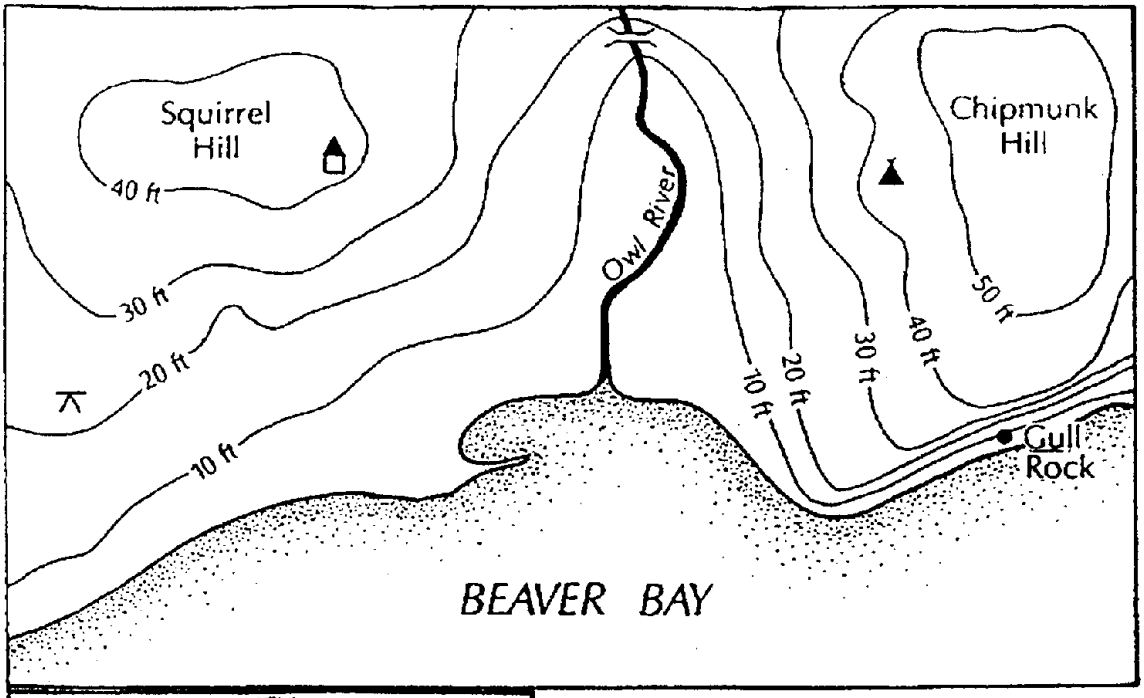
Materials: map (attached), color magic markers

Word Power: topography, cartographer, contour line

Procedure:

1. Copy and distribute the attached map.
2. As a class, read the definition of a contour map. Look at other maps or globes in the classroom, and discuss how cartographers show elevation. Then complete numbers 1 to 5 and discuss.
3. Break the class into pairs and have them complete the activity at the bottom of the sheet.
4. Have each pair join with another to share the maps they have made.

from *Power to Production* activity guide, Tsongas Industrial History Center, Lowell National Historical Park, National Park Service - used by permission



KEY

- 0-10 ft
- 10-20 ft
- 20-30 ft
- 30-40 ft
- 40-50 ft
- over 50 ft
- Bunkhouse
- Picnic Area
- Campground
- Bridge

N

0 ¼ ½ ¾ 1 mile

A contour map shows the elevation or height of a place above sea level. On such a map, all points at the same elevation are connected by a "contour line." The map above shows the Owl River flowing down between two hills to empty into Beaver Bay.

1. To show the contours more clearly shade each one with a different color. Use the key to explain your colors.

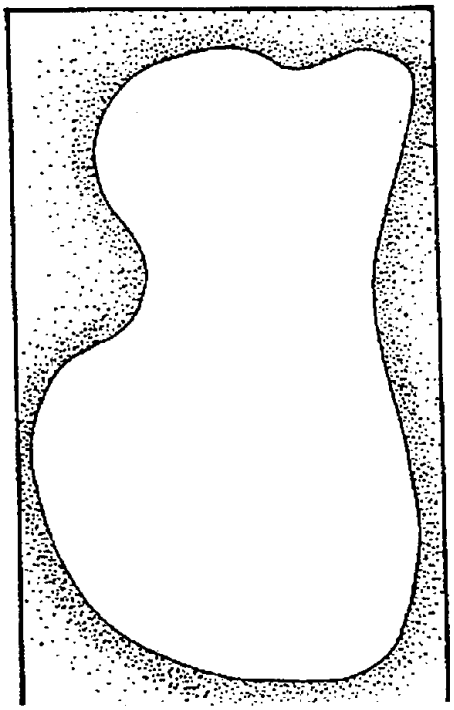
2. Which hill is higher?_____

3. What is the elevation of the bunkhouse?__ the bridge?__

4. Would it be a steeper climb to the top of Chipmunk Hill from Gull Rock or the bridge? _____

5. Trace a hike from the campground to the picnic area. Use arrows to indicate which part of the hike is uphill and downhill.

The map on the right is not finished. Use contour lines to indicate a hill somewhere on this island. The hill should have one steep side and one side with a gradual slope.



Siting a Mill

Concepts: Contour maps can be an effective tool when selecting an appropriate site to build a water-powered mill.

Objectives: Using a topographic or contour map of a particular locale, students will be able to select the best site to build a mill.

Subjects: Geography, Social Studies, Math

Materials: attached map hand-out, color magic markers

Word Power: millwright, reservoir, mill pond, contour map

Procedure:

1. Divide the class into groups of four students and give each a copy of the attached map.

2. Read the following scenario to the class. Then discuss the facts that students need to remember to do the assignment. List these on the board.

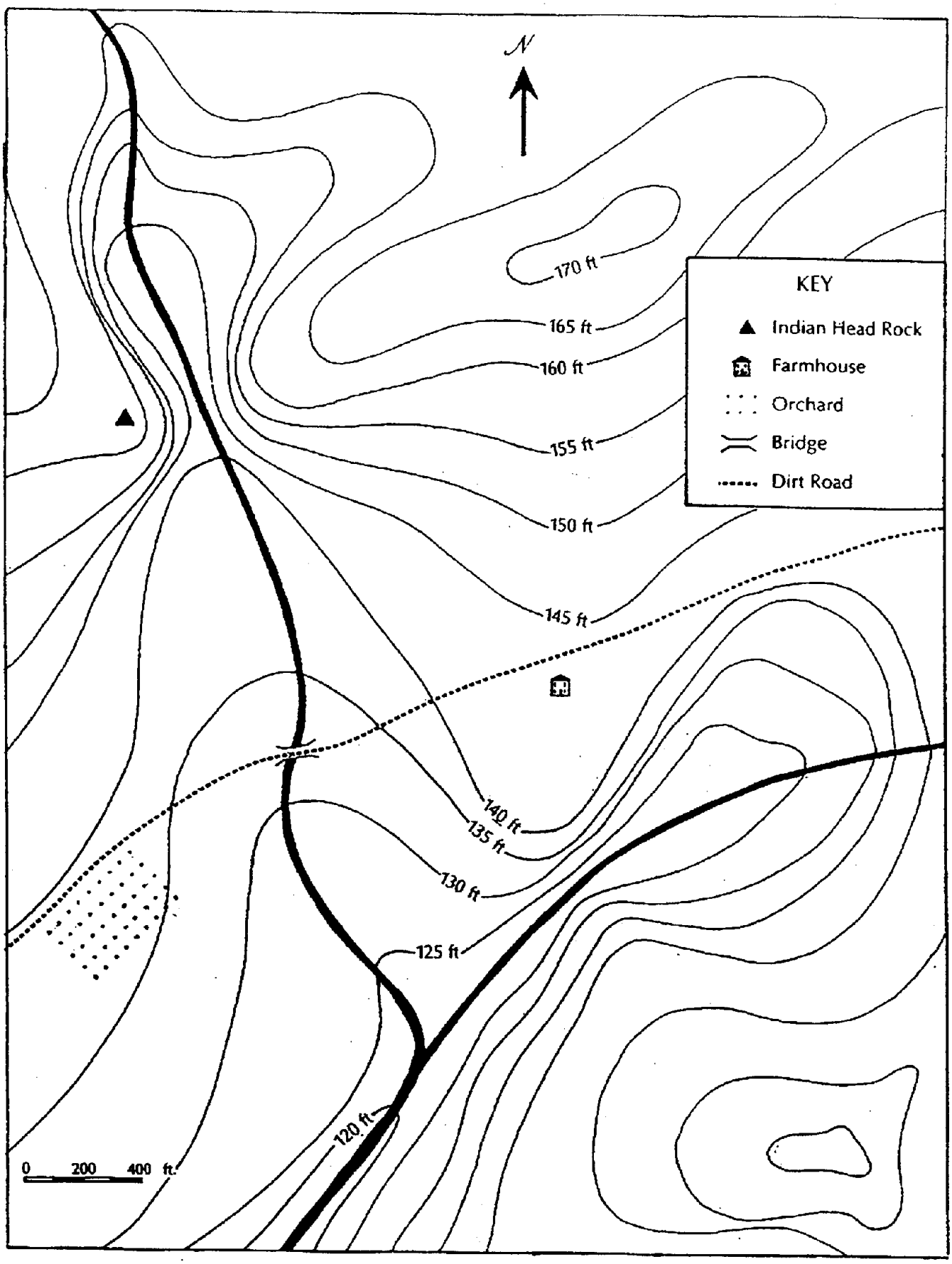
3. Each group represents a millwright who has been hired to build on water-powered mill located on this map. Several points must be considered when selecting the site:

   - The river is represented by the dark Y-shape on the map.
   - A dam is needed to collect water and create a mill pond or reservoir.
   - A dam builder wants to build the dam as high as possible and as short as possible because long dams are expensive to build.
   - The dam must be level. Therefore, the two ends of the dam must meet contour lines with the same elevation.
   - A larger pond is better than a smaller one because it can store more water overnight.
   - A pond that is too big might not be worth creating if it floods too much good farm land.
   - The dam builder has to pay for the land flooded.
   - Most mills get power from water that drops 10 to 30 feet from the top of the dam to the bottom of the wheel.

4. Ask students to figure out the high and low points on the map. Mark the two hills with an H and mark the low point with an L. Then figure out where to place the dam and mark it on the map. Follow the contour lines upstream from the top of the dam to figure the size of their mill pond. Use a ruler and the map scale to measure the length and width of the pond. Calculate the area covered by the pond. Is the pond mostly shallow or deep? Have students color in the pond.

5. Have each group present its map and discuss the pros and cons of each solution.

from *Power to Production* activity guide, Tsongas Industrial History Center, Lowell National Historical Park, National Park Service - used by permission


N
170 ft
165 ft
160 ft
155 ft
150 ft
145 ft
140 ft
135 ft
130 ft
125 ft
120 ft
KEY
Indian Head Rock
Farmhouse
Orchard
Bridge
Dirt Road
0 200 400 ft.