

RIVERS OF NORTH AMERICA

13 PART SERIES

ARKANSAS
COLORADO
COLUMBIA / SNAKE
CONNECTICUT
HUDSON
INDIAN / INLAND WATERWAY
LOWER MISSISSIPPI
UPPER MISSISSIPPI
MISSOURI
OHIO
POTOMAC
RIO GRANDE
SACRAMENTO / AMERICAN

Consider Visiting These Web Sites:

<http://www.bio.umass.edu/biology/conn.river/book.html>

<http://www.ct.nrcs.usda.gov/cd4g.htm>

<http://www.ctrivermuseum.org/connrivindex.htm>



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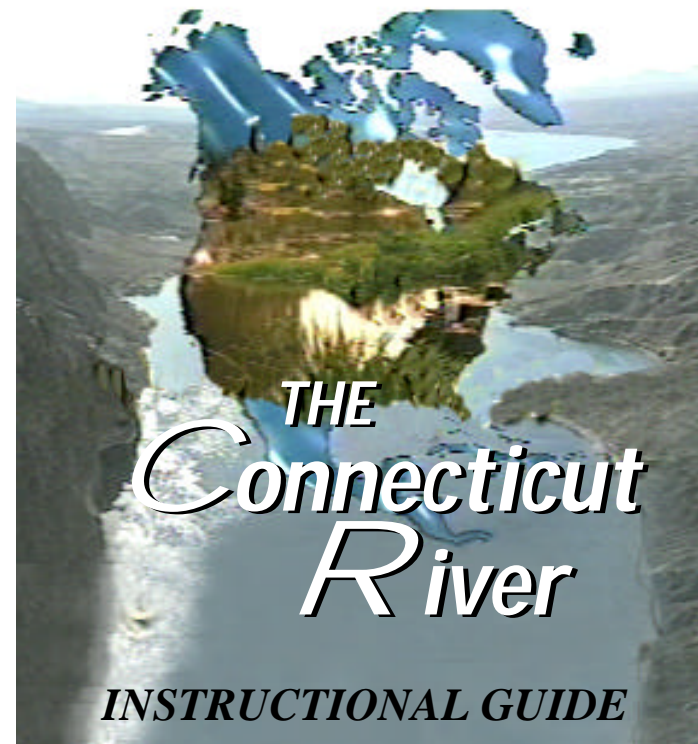
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Presents

***Rivers
of
North America***

13 Part Series



INTRODUCTION TO SERIES

Rivers of North America Series brings a unique perspective to the role great rivers have played in the early development and subsequent settlement of a region and a nation. Each river has its own unique story to tell, it's own geology, geography and history.

As a complementary device with each video, an instructional guide suggests exercises to help teachers, parents and students. These interactive exercises will reinforce and further develop a student's level of comprehension.

The instructional guide provides:

Vocabulary
Chronology / Q & A
Native People / Explorers
Discussion Points / Activities
Geography / Geology
River / Cities Development

**Permission granted to copy the
exercises provided in this guide.
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*E-Guides available at
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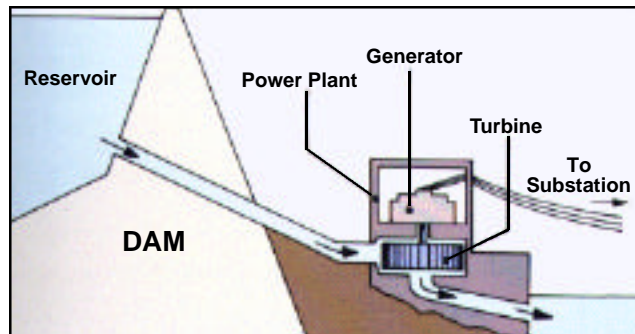
Glaciers of *The CONNECTICUT*

The glaciers of the last ice age that formed the Connecticut River began their movement over 2 million years ago. These glaciers provided the geological transformation needed to formally create the Connecticut River. On paper or a computer, explain and illustrate what glaciers are and how they shape and form different geological formations. If needed use the illustration below or if possible draw your own graphics (use a computer). Gather information from the internet.



DAMS of The CONNECTICUT

There are 16 dams along the 407 mile journey of the Connecticut River. On paper or a computer, explain and illustrate what dams are and why they are built. Also mention how dams affect the environment. If needed use the illustration below or if possible draw your own graphics (use a computer). Gather information on the internet.



NOTES:

THE Connecticut River

From its headwaters in Northern New Hampshire, the Connecticut River journeys 407 miles south before it empties into the Long Island sound at Old Saybrook, Connecticut. The creeks and streams high above New England's White Mountain Range give birth to the river's headwaters. The Connecticut River Basin is New England's largest river system, draining an area of 11,000 square miles. Over 100 million years ago dinosaurs once roamed the Connecticut River Region. However it was the movement of glaciers which began two million years ago and ended just 12,000 years ago that shaped the lands of New England especially the Connecticut River Basin.

The first humans to inhabit the Connecticut River Basin were Paleo-Indians who hunted mammoths, giant moose and other large animals called "mega fauna". In 1614, Dutch trader Adrian Block became the first European to sail the Connecticut River. By 1633 the Dutch established a permanent colony at Hartford. However during that same time France, England and other Native Americans were also interested in the Connecticut River Valley. This mutual interest eventually led these different groups into bitter battles and eventual wars. In 1754 France and its Indian allies declared war on England and its colonies. After this 9 year conflict known as the French and Indian War another famous war began – The Revolutionary War. It was during the Revolutionary War, at the "Battle of Bennington" just 30 miles west of the Connecticut River, two American Colony forces merged to defeat the British and take control of the river region.

After the Revolutionary War another revolution emerged. Driven by the river, waterwheels now supplied the power to create the industrial revolution. Eli Whitney a Connecticut native, invented the cotton gin which initiated the tremendous growth in the cotton mill industry. With the growth of industry, the Connecticut River region began to prosper. However after 150 years of industrial pollution the river's health dramatically deteriorated. This prompted government legislation like the "Clean Water Act of 1972" to prohibit businesses from using the river for untreated waste material.

Today the Connecticut River is once again returning to its natural beauty. In 1998 President Clinton designated the Connecticut River as an American Heritage River. Like its history reveals, if the vitality of the Connecticut River continues to manifest it will forever fulfill a significant role in North America's present and future development.

VOCABULARY of *The CONNECTICUT*

ADRIAN BLOCK: A Dutch trader who became the first European to sail up the Connecticut River in 1614.

BATTLE OF BENNINGTON: It was during the Revolutionary War, at the "Battle of Bennington" just 30 miles west of the Connecticut River, two American Colony forces merged to defeat the British and take control of the river region.

BRACKISH WATER: The water containing both the fresh water from a river and salty water from an ocean.

CLEAN WATER ACT OF 1972: After 150 years of industrial pollution, government legislation prohibited businesses from using the Connecticut river for untreated waste material.

CONNECTICUT RIVER (The): From its headwaters in northern New Hampshire it travels 407 miles before emptying into the Long Island sound at Old Saybrook, Connecticut.

DAMS: Barriers built on rivers to prevent the flow of water. Dams are used to store water, control floods and produce electricity.

ESTUARY: The area where an ocean tide meets a river's current. This area consists of brackish water which contains both the fresh water from a river and salty water from an ocean.

GLACIERS: A large body of ice moving slowly down a slope, valley, or land surface. It was the movement of large bodies of ice known as glaciers which shaped and formed the geological formations in New England especially the Connecticut River Basin.

Letters A thru C describe three **Connecticut River** cities. Write the name of the city on the solid black line. Then with a Black Marker write the letter **A, B, C** to indicate where on the Connecticut River map each city is located.

A) The Connecticut River empties into the Long Island Sound near the Town of _____ which is famous for the invention and construction of the first submarine.

B) Connecticut's Capital City _____ is located along the banks of the Connecticut River and is known worldwide for its insurance companies.

C) _____ is the site of the Basketball Hall of Fame.



GEOGRAPHY of *The CONNECTICUT*

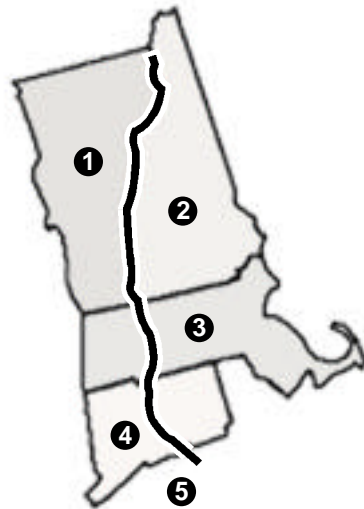
The **Connecticut River** journeys through four states before emptying into a body of water. On the solid black line name each of these areas.

STATES:

① _____ ③ _____
② _____ ④ _____

BODY OF WATER:

⑤ _____



FLOOD PLAIN FOREST: The Connecticut River flows through an area located in Massachusetts which floods every spring because of the rising waters from the White Mountains snowmelt runoff.

FRENCH & INDIAN WAR: From 1754-1763 France along with its Indian allies fought England for the control of North America.

HEADWATERS: The mixture of melting snow and rain form into the little creeks and streams which become the initial water source for larger bodies of water i.e. The Connecticut River.

INDUSTRIAL REVOLUTION: During the mid-1800's a rapid change in an economy marked by the general introduction of power-driven machinery. i.e. Connecticut native Eli Whitney's invention of the cotton gin revolutionized the entire cotton mill industry.

MEGA FAUNA: Large extinct animals which were once hunted by nomadic Indian tribes who inhabited the Connecticut River Basin.

SEDIMENT: Rocks, soil and organic matter that settles to the bottom of a river and is carried along by its current.

TRIBUTARIES: A smaller stream or river that joins a larger one and gives up its name.

YANKEE PEDDLERS: Items such as buttons, saddles, boots, shoes, brooms etc. mass produced during the Industrial revolution were introduced by "Yankee Peddlers" who traveled throughout the country to sell these products to the public.

WHITE MOUNTAINS (The): Its slopes provide the initial water or headwaters in the form of creeks and streams which eventually transform into the Connecticut River.

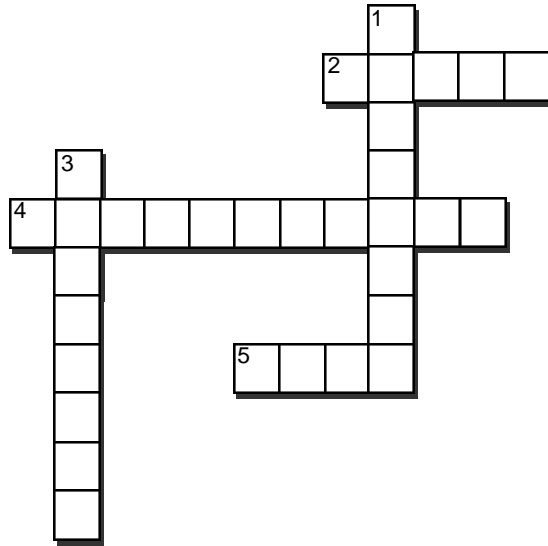
CHRONOLOGY of *The CONNECTICUT*

- **100 million years ago:** Dinosaurs once roamed the Connecticut River Basin.
- **2 million years ago:** The movement of glaciers during the last great ice age begin to form the New England region especially the Connecticut River Basin.
- **12,000 years ago:** The movement of glaciers during the last great ice age ends.
- **10,000 years ago:** Nomadic Indian Tribes occupy the Connecticut River Basin.
- **1614:** Dutch trader Adrian Block becomes the first European to sail up the Connecticut River.
- **1633:** Dutch establish a permanent colony at Hartford, Connecticut.
- **1744:** Colonial government of New Hampshire establishes settlements along the Connecticut River.
- **1754-1763:** The French & Indian War. (SEE Vocabulary)
- **1775:** The Revolutionary War.
- **1777:** The Battle of Bennington (SEE Vocabulary).
- **Late 1700's:** Connecticut native Eli Whitney invents the cotton gin.
- **1800's:** Industrial Revolution (SEE Vocabulary).
- **1972:** "Clean Water Act of 1972" (SEE Vocabulary).
- **1991:** Congress named the entire Connecticut River watershed the Silvio O. Conte a National fish & Wildlife Refuge.
- **1998:** President Clinton designates the Connecticut River as an American Heritage River.

Discussion Points / Activities

1. If possible visit some of the locations along the Connecticut River as discussed in the video. SEE Pg. 5 of this guide. Also checkout the internet for web sites about the rivers rich heritage. SEE Back Page.
2. Like a science project, build a model river using paper mache', clay, dirt / mud etc. to illustrate the characteristics of the Connecticut River. Perhaps use charts and maps to explain what happens to the river region during the movement of glaciers or the building of dams etc.
3. Discuss how each of the following events have affected the past and present-day conditions of the Connecticut River:
 - 1) Building of dams
 - 2) Industrial Revolution
 - 3) The arrival of Indian cultures & European explorers
 - 4) Development of cities
4. The ecosystems along rivers and other bodies of water sustain many different life forms. If possible visit a river (the Connecticut River) and imagine you are an ecologist. Study these different life forms and document their relationships with the river environment. i.e. bring binoculars, take photographs, paint a river scene, write a poem, sample various vegetation to view under a microscope etc.

Use the words described in this guide on pgs. 2, 3, 4 & 5 to complete the crossword.



DOWN:

- 1) Large bodies of ice.
- 3) Both salty ocean and fresh river water.

ACROSS:

- 2) Dutch trader first to sail up Connecticut River in 1614.
- 4) Smaller streams or rivers that joins a larger river.
- 5) Barriers built on rivers.

ANSWERS:
DOWN-1) Glaciers, 3) Brackish
ACROSS- 2) Block, 4) Tributaries, 5) Dams

EXPLORERS of The CONNECTICUT

SAMUEL DE CHAMPLAIN: Frenchman who visited the Vermont region in the early 1600's.

ADRIAN BLOCK: A Dutch trader who first sailed up the Connecticut River in 1614.

JOHN OLDHAM: Englishman who established a trading post near present-day Wethersfield, Connecticut.

PLACES OF THE CONNECTICUT RIVER REGION:

WHITE MOUNTAINS (The): Known as the "Switzerland of America" this Mountain Range located in New England provides the headwaters for the Connecticut River.

CITIES OF THE CONNECTICUT RIVER REGION:

Connecticut:

Old Saybrook - Where the Connecticut River empties into the Long Island Sound and the rivers current meets the ocean tide.

Hartford - Capital City of Connecticut

Massachusetts:

Springfield - Home of the Basketball hall of Fame

Vermont:

Brattleboro - Cultural and economic center of Southeastern Vermont.

Q & A for The CONNECTICUT

1. In what mountain range do the headwaters of the Connecticut River begin?
2. What is the name of the area where a river's current meets an ocean's tide?
3. The Connecticut River ends its journey by emptying into what body of water? Near what Connecticut town?
4. Who inhabited the river region before the Europeans arrived in the 1600's? Who fought for control of the Connecticut River Region during the 1600's-1700's? What 9 year war started in 1754 because of the increasing hostility among these different groups?
5. In 1777 a great battle took place during the Revolutionary War where two Colonial forces merged to defeat the British and take control of the Connecticut River Region. What is the name of this great battle?
6. After the Revolutionary War another revolution began during the 1800's. Name and define this revolution. Who were the "Yankee Peddlers" ? What Connecticut native played a major role during this revolution and what did he invent?
7. After 150 years of industrial use the Connecticut River became known as "The Best Landscaped Sewer in America". Because of this kind of use name and define the government legislation which passed in 1972. As a result what designated name did President Clinton give the Connecticut River in 1998?

Fill in the blank by selecting the words from the answers list:

ANSWERS LIST :

North American War • Snowcap Lake • Whitney's Revolution
Clean Water Act of 1972 • Connecticut River • Flood Plain Forest
Industrial Revolution • French & Indian War • Anti-Pollution Act

8. **A)** The Connecticut River flows through the _____ an area located in Massachusetts which floods every spring because of the rising waters from the White Mountains snowmelt runoff.
- B)** Connecticut native Eli Whitney's invention of the cotton gin revolutionized the entire cotton mill industry. This along with other power-driven machinery initiated what was known as the _____ .
- C)** During the _____ from 1754-1763 France along with its Indian allies fought England for the control of North America.
- D)** Government legislation known as the _____ prohibited businesses from using the Connecticut River for untreated waste material.
- E)** The headwaters of the _____ begin in northern New Hampshire then travels 407 miles before emptying into the Long Island Sound at Old Saybrook, Connecticut.