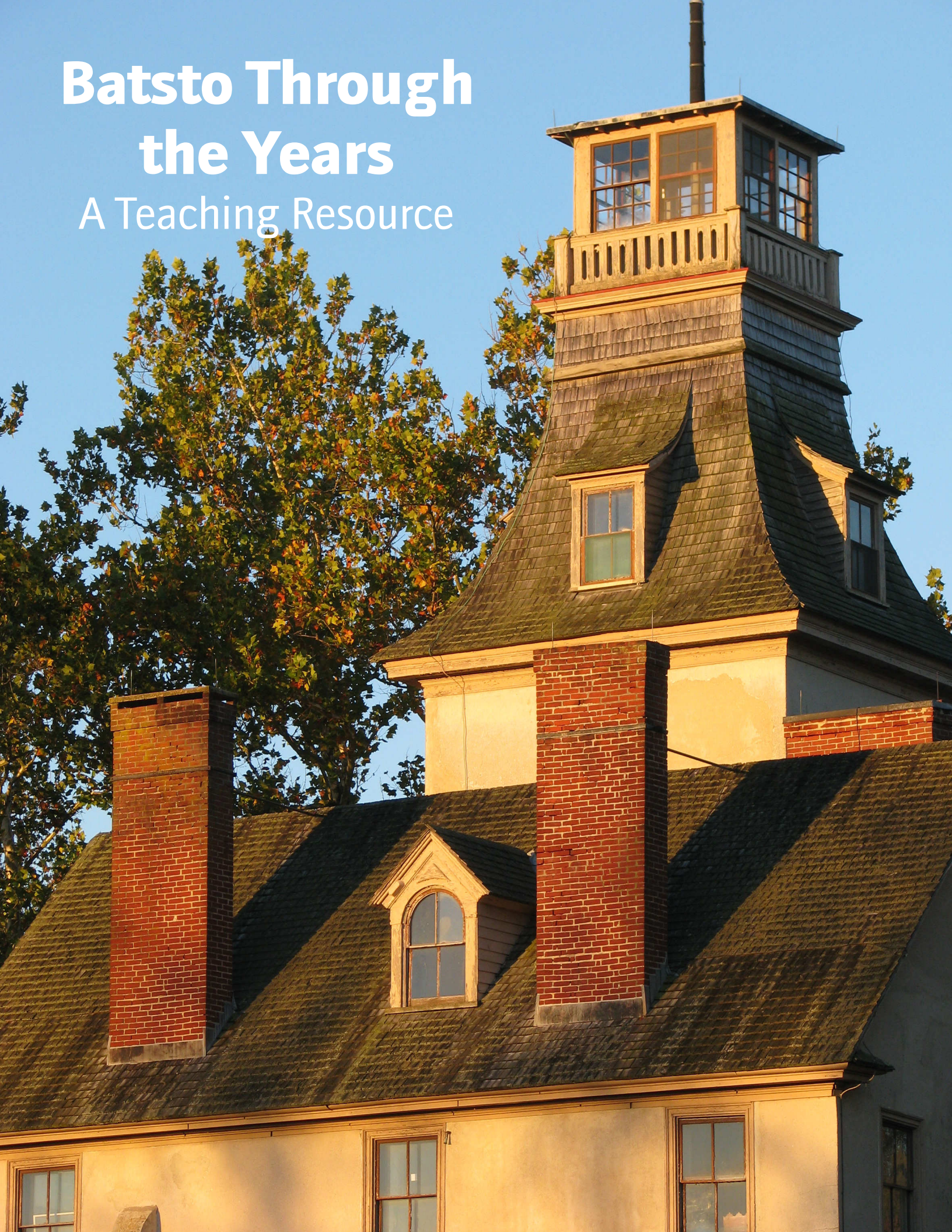
# Batsto Through the Years

## A Teaching Resource



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Special thanks to Carol Freas, Gail Hunt, Ron Kurtz, Eric McKinley, Terry Schmidt and the staff of Wharton State Forest for their contributions toward completing these materials. Thanks also to the Batsto Citizens Committee, Inc. for funding the reproduction of this booklet.

*October 2008*

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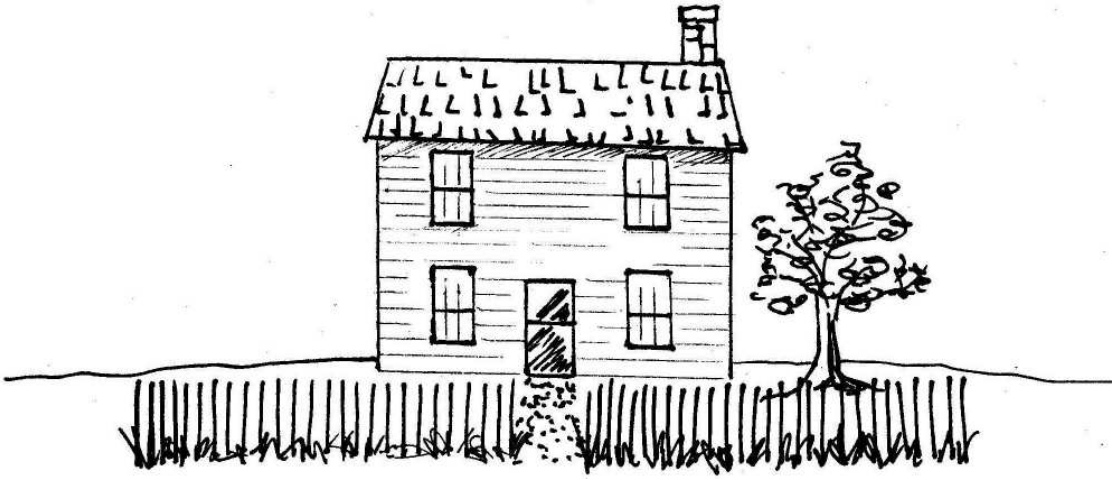
# Wharton State Forest

**Historic Batsto Village**
**31 Batsto Road**
**Hammonton, NJ 08037**
**609-561-0024**

# Preface



Thank you for your interest in Historic Batsto Village. This manual has been developed to help educators teach the importance of the New Jersey Pinelands and the lifestyles of the people who lived and worked there.

After completing a variety of lessons and visiting Batsto Village, a student will have an appreciation of the site and be able to make connections between life in the 18th and 19th centuries and today. While this handbook is best used in conjunction with a visit to the site, some of the lessons can be used to enhance classroom instruction without visiting in person.

To make the most of an on-site visit, it is suggested that classes do some preparatory work. By completing the mapping activity and reading "Batsto Through the Years," a student will have an understanding of where the site is located and how and why it developed. Instructors can choose from several additional topics dealing with daily life and industry in the village, depending on the focus of the class. The plan entitled "Village Visit Guide: A Walk Through History" should be distributed to students before the visit and brought along on the day of the trip. It can be used as a self-guided "discovery walk." It provides information about the village and presents questions to be answered during the visit.

These lessons were designed with varying levels of difficulty for use in a differentiated classroom. Post-visit and expanded, cross-curriculum activities reinforce the student's experience at the village and enhance critical thinking. Finally, opportunity is given for students to examine their own community and evaluate how society handles the preservation of historic buildings and open spaces.

We hope this information will be helpful in your classroom. Please contact the park staff to schedule a visit.

# Group Program Participant Preparedness Guidelines

*We look forward to your visit to Wharton State Forest/Batsto Village. To make this a successful visit, it is important that you read this information and follow through with the guidelines listed. Please make this information known to your students and chaperones. These regulations will ensure that your group, and other visitors, will have an informative and safe visit.*

## General Park Regulations

1. **The entire village of Batsto is a museum.** Please use the same care here that you would in any other museum. Due to the age and fragility of the buildings and artifacts, please refrain from touching or handling any items unless directed by our staff.
2. Photography, videotaping and audio taping are not permitted inside of the historic buildings.
3. Smoking, food and beverages are not permitted inside of the historic buildings.
4. Please do not sit or climb on fences.
5. Be respectful of visitors not involved with your group.
6. **Batsto is a carry in/carry out site. Waste receptacles are not available.** If your group has lunch in the picnic area, please make provisions to carry your trash out and dispose of it at home/school.
7. Snacks are available from an outdoor vending machine but no food is prepared at the park.
8. The Museum Shop offers souvenirs, candy and various gift items. Due to the small area, please plan to have groups of ten students, accompanied by chaperones, enter at one time. Museum Shop personnel would greatly appreciate the students having change and bills in small denominations for their purchases.
9. Large groups will be divided into sections of 20-25 students. Please have at least one chaperone for each ten children.

## Suggestions for Personal Care and Attire

1. Please dress comfortably but appropriately. Be prepared to walk on gravel and dirt roads. Comfortable shoes or sneakers are highly recommended.
2. Remember that you will be in a State Forest. Be aware there are insects and ticks in the park, as in any wooded area. Prepare accordingly.
3. It is suggested that group leaders pack first aid supplies. Please know the physical limitations of your group members, especially allergies to bees and plants. Sunscreen is recommended.

### Please Remember

- The entire village of Batsto is a museum. Please refrain from touching or handling any items unless directed by our staff.
- Batsto is a carry in/carry out site. Waste receptacles are not available. Please make provisions to carry your trash out and dispose of it at home or school.

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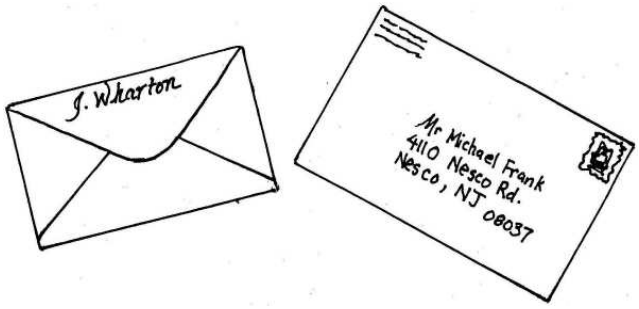

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# Mapping New Jersey

## Synopsis

To understand the development of Batsto Village and early industry in the Pinelands, it is essential that a student be familiar with the geography and topography of the region. Mapping offers a visual interpretation of the vast area covered by the Pinelands. By indicating his/her own town on the map, a student can tell if it falls within the Pinelands boundary.

## Objectives

- To use research skills to investigate the geography and topography of the Pinelands.
- To indicate the location of various important places on a map.
- To interpret information such as geographic location and political divisions on a map.

## Materials

- Activity sheet
- Map of New Jersey
- Text, atlas and/or Internet web sites

## Curriculum Standards

**New Jersey State Social Studies Standards**

*6.6 Geography*

A1 Use physical and political maps to identify locations and spatial relationships of places within local and nearby communities.

A3 Estimate distances between two places on a map using a scale of miles.

A4 Identify the major cities of New Jersey.

B1 Identify the physical and human characteristics of places and regions in New Jersey.

B3 Describe the geography of New Jersey.

Name:_____

# Mapping New Jersey

To understand Batsto Village and Wharton State Forest, it is essential to know where they are located. The history and development of the area are directly related to its geography and topography.

## Activities

Visit one or more of the suggested web sites and label the following sites on the map of New Jersey provided.

1. Atlantic Ocean
2. Delaware River
3. Batsto River
4. Mullica River
5. Trenton
6. Cape May
7. Batsto Village
8. your town
9. any county having land within Wharton State Forest

### Suggested Web Sites

- http://www.state.nj.us/pinelands/edu
- http://www.njparksandforests.org
- http://www.nps.gov/pine
- http://www.burlco.lib.nj.us/pinelands

**Topography**

After visiting several web sites and viewing pictures of the Pinelands, answer the following questions.

1. What are the main physical features of the Pinelands?

_____

_____

2. What is the most abundant type of vegetation?

_____

3. Compare and contrast this area with your community.

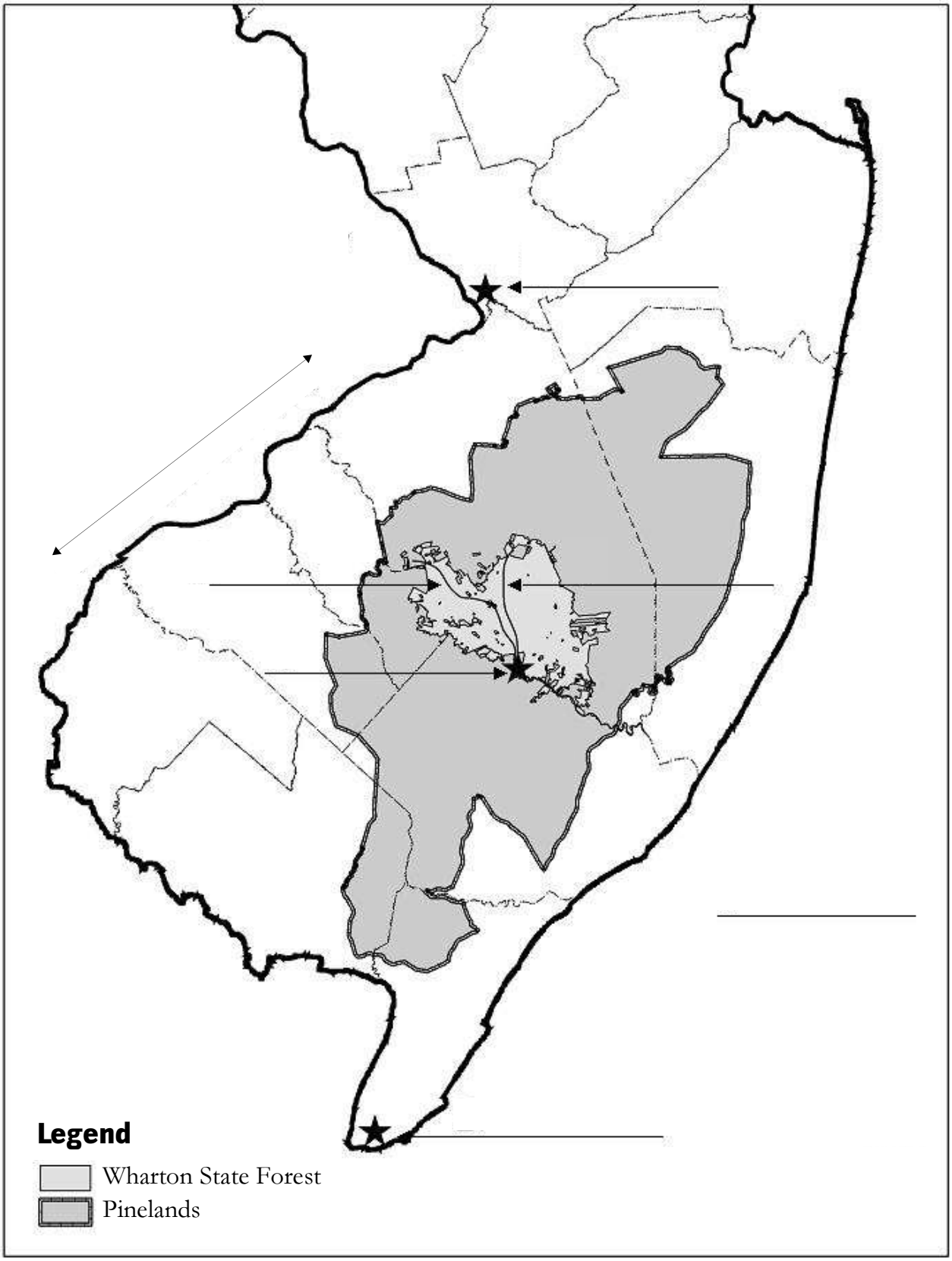
_____

_____

_____

_____

# Mapping New Jersey



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# The Pinelands National Reserve

## Synopsis

Local, state, national and world attention has been drawn to the importance of the Pinelands. The well-being of this New Jersey ecosystem begins with the condition of the soil and the water in the region. Education is the key to fostering future generations of caretakers for this unique environment. An overview of the Pinelands ecosystem is presented here. While at Batsto, please visit the Nature Center or take advantage of a special program presented by our naturalist.

## Objectives

- To use research skills to investigate the ecology of the Pinelands.
- To synthesize information you have learned through research and presentations.
- To support your opinions through written and/or oral expression.

## Materials

- "The Pinelands National Reserve"
- Activity sheet
- Research information gathered from library or Internet sources
- Props such as clothing, posters, video camera to be used for role playing

## Curriculum Standards

**State of New Jersey Social Studies Standards**

*6.1 Social Studies Skills*

A1 Explain how present events are connected to the past.

*6.5 Economics*

A4 Discuss how natural, human and capital resources are used to produce goods and provide services.

*6.6 Geography*

A1 Use physical and political maps to identify locations and spatial relationships of places within local and nearby communities.

B1 Identify the physical and human characteristics of places and regions in New Jersey.

B2 Explain changes in places and regions over time and the consequences of those changes.

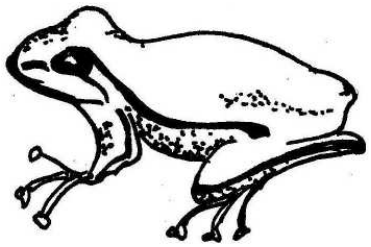
C1 Describe the basic components of Earth's physical systems and discuss their impact on human development.

# The Pinelands National Reserve: A Very Special Place

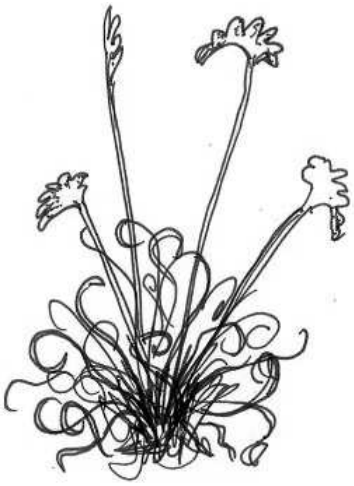
The New Jersey Pinelands covers a 1.1 million acre area which includes parts of seven New Jersey counties. It was the first region established by the U.S. Congress as a National Reserve in 1978. In a National Reserve, local, state and national government agencies work together to determine how to protect the area while allowing necessary development.

A border area known as the "protection" area is the most developed, allowing businesses and communities to grow while keeping in mind the impact on the environment. Another, more sensitive zone is called the "preservation" area. This is a semi-wilderness area which is highly protected to maintain its important natural resources.

In 1983, UNESCO, the United Nations Educational, Scientific and Cultural Organization, named the New Jersey Pinelands a "Biosphere Reserve." These areas throughout the world are studied to learn how human activity impacts the ecosystem and how we can develop our society without damaging the natural world.



*Pine Barrens Tree Frog*



*Curly Grass Fern*

## Pinelands Fast Facts

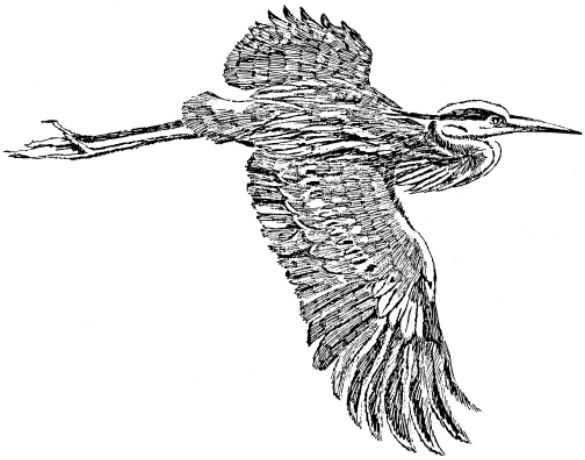
- The dark "tea" color of the Pinelands waters comes from vegetation decaying along the streams and from tannin in the cedar trees. Although it is dark, it is not dirty. The acidic quality of the water creates a unique environment for specialized plant and animal life.

- Acidic water and sandy soil did not support the kind of farms that early European settlers were used to. Unable to produce their crops here, they called the land "barren." Today, the sand and wetlands provide the perfect environment for the cultivation of cranberries and blueberries.

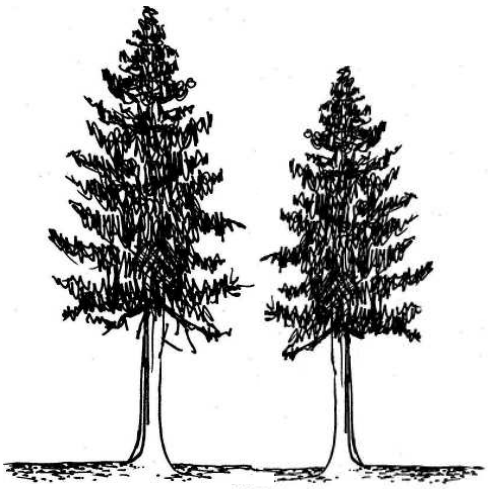
- Some of New Jersey's most endangered plants and animals are found here. The Pine Barrens Tree Frog, for example, is found only here and in some pine forests of the southeastern United States. The Curly Grass Fern grows in cedar swamps. This

# The Pinelands National Reserve: A Very Special Place

*Pitcher Plant*



*Great Blue Heron*



*Atlantic White Cedar*

rare three-inch tall plant was first discovered in 1805 at Quaker Bridge, in the heart of today's Wharton State Forest.

- The soil in the Pinelands is high in iron but low in minerals and nutrients. Some plants adapted to this by eating insects. The leaves of the Pitcher Plant, for example, collect rain water. Insects fall into the liquid, become trapped, and are slowly digested. Yummy!

- Water flowing through the Pinelands makes its way to the marshes and bays of South Jersey. The purity of the water is important for maintaining the habitat for crabs, fish, clams and other sea life. This directly impacts the health of the food chain.

- When you are in the Pinelands you are standing on top of something you can't live without. The sandy soil contains about 17 trillion gallons of clean water. It is called the Kirkwood-Cohansey Aquifer. The water feeds rivers, streams, wetlands and bogs. It is replaced each year by some 45 inches of rain. So, the next time it rains, don't be sad. Think of the water that will be sustaining plant and animal life in the pines - including you!

- It's hard to imagine today, but most of this area was once stripped of its forest during the industrial period of the 18th and 19th centuries. Thanks to planting and regrowth, the land has returned to forest.

Name:_____

# The Pinelands National Reserve: A Very Special Place

While at Batsto, visit the Nature Center and talk to the naturalist. Find examples of the following Pinelands species:

| | |
|---|---|
| A reptile: | |
| A bird: | |
| An insect: | |
| A plant: | |
| A tree: | |
| An endangered species that lives in the Pinelands: | |
| Something you would not like to meet on a walk in the woods: | |
| Something you would like to see in the wild: | |

Why do you think it is important to preserve Wharton State Forest and protect its ecosystem?

_____

_____

_____

_____

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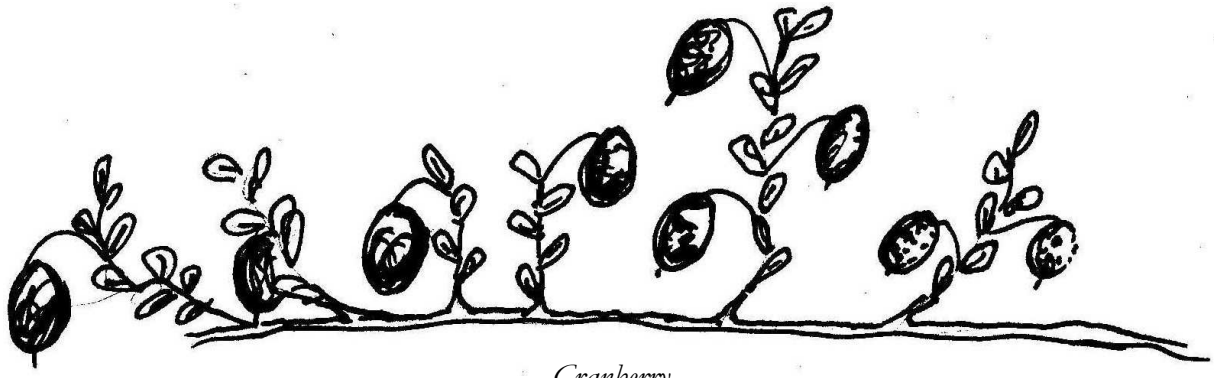

*Cranberry*

# The Pinelands National Reserve: A Very Special Place

## Research Activity

Choose one of the topics addressed in the reading. Using library materials or Internet sites, research the topic for more detailed information. Individually or in a small group, present your findings to the class.

## Extended Activity

This activity will explore the importance of Wharton State Forest and the preservation of our National Reserve. It is designed to encourage research on ecology and self expression through role play and/or writing.

1. The class should be divided into two groups.
2. Group 1 will represent developers who want to purchase part of the Pinelands Reserve. They will explain how their development plan for homes, shopping areas and businesses will not hurt the environment and will be an asset to the community.
3. Group 2 will represent the (imaginary) Pinelands National Reserve Protection Committee. They will defend the preservation of the Reserve and explain the impact of development on the environment.
4. Information can be presented in the form of a debate, a TV or radio public service announcement or editorial for the newspaper.
5. After hearing both sides of the issue, each student should write a short paragraph expressing his/her opinions.
6. The class should hold a special "election" to vote on the proposal to develop within the Reserve.

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# Batsto Through the Years

## Synopsis

Batsto Village has a long and interesting history. This lesson presents an overview of the important periods in the life of the village. Through good times and bad, from iron making through the Wharton Era, the common denominator was the people who lived and worked here. Some interesting facts will help bring the village and its residents to life for your students. The timeline project is intended to help organize facts and give students a visual image of how Batsto fits into state and national history.

## Objectives

- To identify specific important time periods during Batsto's history and the products related to that period.
- To organize historical information and place facts on a timeline.
- To make connections between natural resources and the development of a community.

## Materials

- "Batsto Through the Years"
- Activity sheet
- Poster board
- Pictures from the Internet, text resources or those taken during a site visit
- Hand-drawn graphics to decorate the timeline

## Curriculum Standards

**State of New Jersey Social Studies Standards**

*6.1 Social Studies Skills*

A1 Explain how present events are connected to the past.
A2 Apply terms related to time including years, decades, centuries and generations.
A4 Organize events in a timeline.

*6.4 United States and New Jersey History*

A2 Compare family life in a community of the past to life in a community of the present.
B3 Discuss New Jersey's role during the American Revolution.

# Batsto Through the Years

## Overview

Batsto Village is situated in Wharton State Forest, part of the New Jersey Pinelands National Reserve. The availability of wood, bog ore, sand and water attracted early developers to the area. Now a State Historic Site, Batsto was once a self-contained community which contributed to the industrial, economic and social development of the state from 1766 until the mid-20th century.

Batsto was part of a network of iron producing sites in the area. Batsto provides us with an idea of what life was like during the transitional period when we moved from an agrarian society toward the Industrial Revolution.

## What's the Word?

- Have you heard the expression "Pine Barrens?" With trees and other vegetation growing here, the land certainly was not barren. The European settlers referred to it as such because the sandy soil did not support the kind of crops they were used to.
- It is believed that the name "Batsto" is derived from the Swedish word "batstu," meaning "bathing place."

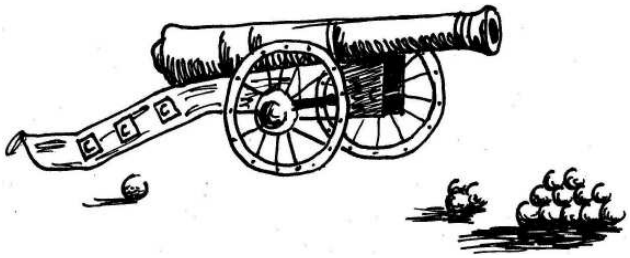
## Pre-Colonial Period

Long before the first European settlers arrived in this area, Native Americans were thriving here. They hunted, gathered food, fished and planted in the forest and along the water ways. In 1498 John Cabot and the first Europeans arrived in what is now New Jersey. Little by little the native population was pushed out and only a few of their descendants survive in this area today.

## Revolutionary War Period

Batsto was founded in 1766 by Charles Read of Burlington, New Jersey. When a family member described the area to him, he knew that the existence of bog ore, trees for making charcoal, seashells for flux and a river for power and transportation were the perfect ingredients needed for iron production. He began what would later become a major iron producing center along the banks of the Batsto River.

# Batsto Through the Years



To achieve independence from Great Britain, the colonists had to produce their own necessities. Products made of iron were extremely important in daily life for cooking, farming, transportation and military protection. Batsto Iron Works became an important supplier to the Continental Army during the American Revolution. It supplied cannons, munitions, camp kettles and iron fittings. Because Batsto provided much needed supplies to the Revolutionary troops, the British attempted to attack the iron works by sailing up the Mullica River. The British were blocked at the Battle of Chestnut Neck on the Mullica River, not far from Batsto.

## I Spy

Spies are not new to the 21st century. They have been an important military asset all through history. Even Batsto had a spy! A letter written in 1776 by William Tryon, a colonial governor who fought with the British stated:

> *Shott supplied by John Cox from Batsto Furnace in New Jersey – sent in four wagons – First load 650; 2nd 400; 3rd 1128; 4th 445 . . . Sent to Philadelphia for the ships of armed Privateer fitted out from that Port.*

Such detailed information had to come from someone very close to the business at Batsto.

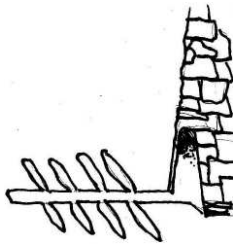
## The Richards Era 1784-1876

For 92 years the family of William Richards, his son Jesse and grandson Thomas, owned and operated Batsto Iron Works and Batsto Glass Works. The Richards family constructed most of the current village buildings and aided the development of the community. Batsto was noted for its high quality products made from pig iron. Special products of that time were cast iron water pipes and firebacks (iron plates used to line the back of a fire place). Batsto was even commissioned by George Washington to produce 4 monogrammed firebacks. Two of them can still be seen at his home in Mt. Vernon, Virginia.

By the early 1850s iron production ceased in Batsto. The difficult production of iron from bog ore was replaced by iron ore mined in Pennsylvania. Charcoal making was replaced by coal mined in the same area. Nothing remains of the furnace or the iron works buildings today.

# Batsto Through the Years

## Three Little Pigs



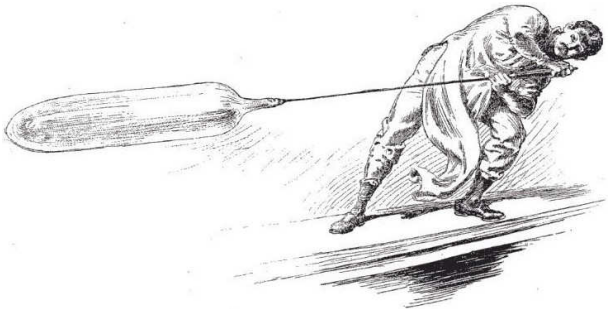
- Pig iron does not come from pigs! The name was given to the iron bars that were formed on the ground when the molten iron ran out of the furnace onto the sand.
- The line of bars attached to a long stream of iron resembled piglets nursing from their mother. Look for pig iron in the Visitor Center Museum.

## 1846-1876

After the decline of iron making in New Jersey, the owners of Batsto needed another industry to keep the village alive. Luckily for the Richards family, silica is present in the sandy soil. Silica, a mineral, is used to make glass. In 1846 Batsto began to produce glass for window panes and street lights.

In 1852, 376 people lived in the 75 homes that made up the village. There was a grist mill, piggery, ice house and general store. At this time the post office was established and for a short time there was a school on the property. The glass business ended in 1867. With no products to sell, industry at Batsto stopped but the residents continued to live in the village. Unfortunately, a disastrous fire in 1874 destroyed much of the village. The buildings you can see today are all that remain from that period.

## Full of Hot Air



Hand-blown glass was made by picking up a ball of molten glass on the end of a long pipe. Carefully, the glass blower blew through the small opening until a large ball of glass formed. Think of how hard it sometimes is to blow up a balloon. Imagine what it was like to form a glass "balloon" at the end of a three foot long pipe! You can see one of these pipes in the museum when you visit Batsto.

## The Wharton Era 1876-1909

Joseph Wharton bought the property in 1876. Wharton was a self-made multimillionaire. He gave money to charities and founded the Wharton School of Economics at the University of Pennsylvania. He kept buying land until he owned 96,000 acres, about 2 percent of the State of New Jersey!

# Batsto Through the Years

Wharton tried growing peanuts and sugar beets, without great success. Eventually he grew cranberries, a crop well suited for the conditions of the South Jersey Pinelands. He expanded the piggery and built the existing sawmill. He enlarged the Mansion and added the tower. Wharton and his family spent little time at Batsto. He employed other people to manage what he called his "South Jersey Lands."

Joseph Wharton developed a plan to sell the water in the Kirkwood-Cohansey aquifer to the City of Philadelphia. This plan failed because Philadelphia preferred to own its water source and the State of New Jersey passed a law to prevent the exportation of its water.

During this time people in the village worked on Wharton's farms, in the saw and grist mills and in the Mansion. Some performed odd jobs around the village and found work on the farms and in the businesses of the surrounding area.

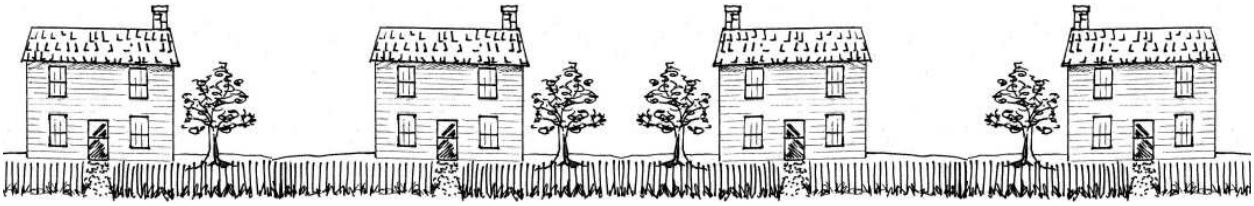
### Well Preserved

Joseph Wharton was a pioneer in forestry and conservation. Today, Wharton's lands are part of the New Jersey State Park System. Wharton State Forest is the heart of the 1 million acres which makes up the Pinelands National Reserve.

## 1909-PRESENT

After Joseph Wharton died in 1909, there was no work in the village. Batsto residents had to find work where they could in the surrounding area. In 1954 the State of New Jersey bought the property. Although most people relocated at that time, a few residents remained in their homes. Wharton's lands now carry his name as part of the New Jersey State Park System.

Today, Batsto Village is located in the Pinelands National Reserve. The reserve was the first of its kind in the country. It was established by Congress in 1978 to protect the unique natural and cultural resources of the Pinelands. Here we can gain insight into the life of the people of the Pinelands through various time periods and the importance of our natural resources.



Name:_____

# Batsto Through the Years

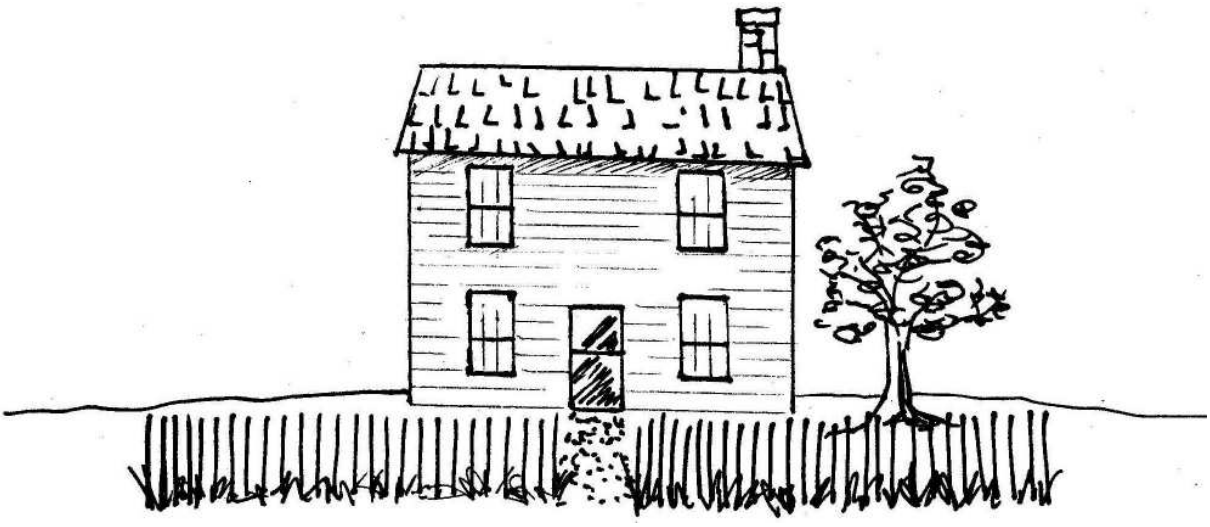
## Activity A

Using the information learned from reading "Batsto Through the Years," the class will produce a mural-sized timeline.

- Divide the class into small groups. Assign one section of the reading to each group.
- Each group will be responsible for producing one section of the timeline by establishing major dates with events and people related to them.
- Each group will present its information to the rest of the class. As one group presents, the rest of the class will complete a smaller individual version of the timeline.
- Pictures and/or graphics should be added to each section of the timeline.

## Activity B

For each time period, research what was happening in the rest of New Jersey and in the United States. Add two or three of these facts to the timeline along with pictures if possible.



# Childhood at Batsto

## Synopsis

The children who were born and raised in Batsto experienced a lifestyle quite different from that of children today. This activity will help students compare their daily experiences with those of a working class child living in Batsto in the 1880s. The graphic organizer provided is begun as a pre-visit activity. Students record their own information and then draw on what they already know to make predictions about what they will learn during their visit. A post-visit activity calls for drawing conclusions.

## Objectives

- To compare and contrast modern lifestyle with that of 1880.
- To draw upon knowledge to make predictions about lifestyles of the past.
- To use critical thinking skills to draw conclusions.
- To express ideas in paragraph form.

## Materials

- "Childhood at Batsto"
- Activity sheet
- Daily life comparison chart

## Curriculum Standards

**State of New Jersey Social Studies Standards**

*6.1 Social Studies Skills*

A1 Explain how present events are connected to the past.

A2 Apply terms related to time including years, decades, centuries and generations.

*6.4 United States and New Jersey History*

A2 Compare family life in a community of the past to life in a community of the present.

*6.5 Geography*

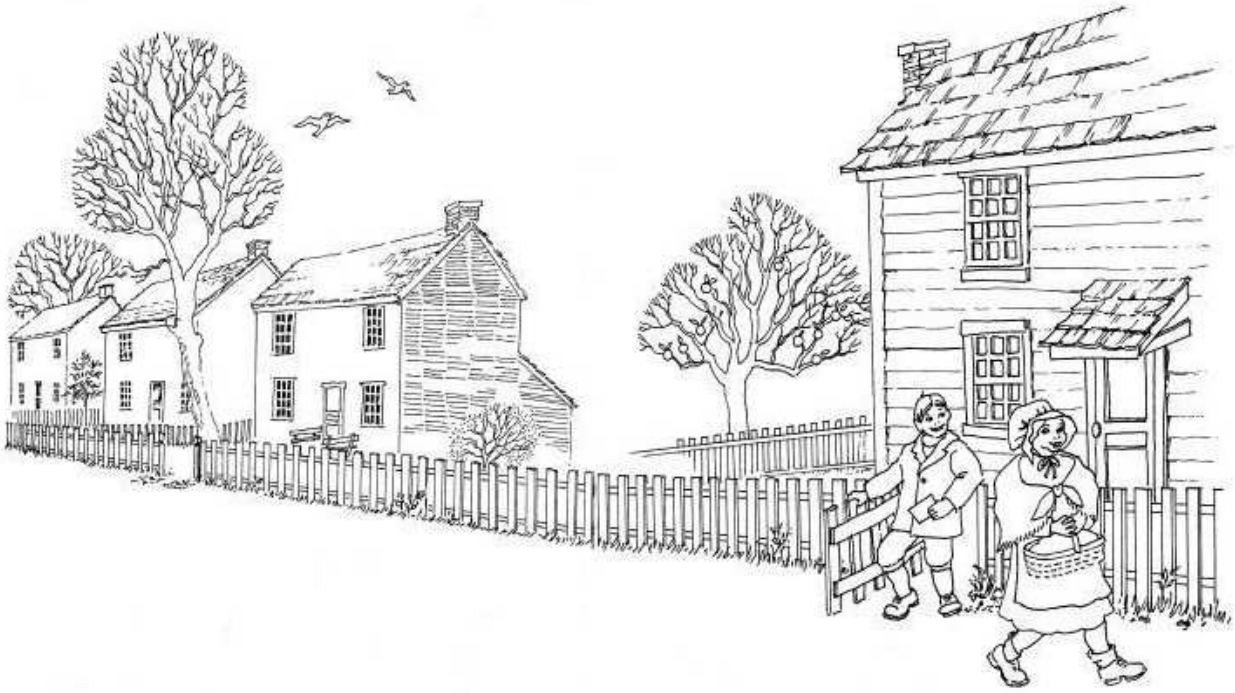
B1 Identify the physical and human characteristics of places and regions in New Jersey.

# Childhood at Batsto

Batsto began as home for workers in the iron and glass industries. Children were born and raised there. Unfortunately, little is recorded about the life of children at Batsto. We can be sure, though, that life in the late 19th century was quite different from the life of children today. Children of the working class families at Batsto lived in small homes without running water or electricity. At times up to 10 people lived in the tiny two-bedroom homes. Children in those days usually had only one or two sets of clothing and one pair of shoes.

A child's day started and ended early. Children were expected to help the family and were given many chores. At a young age they were sent out to pick berries, tend the garden and feed the animals. Boys usually helped their father and often learned his trade. Girls spent a lot of time learning to cook and sew in preparation for running their own home in the future. While life must have been hard by our standards, children at Batsto did have some free time and played games outside with their friends. Many of their toys were handmade.

In the mid-1800s there was a school on the Batsto property. It was a one-room school house, approximately 28 feet by 32 feet in size. That is not much different than one room in your school building today. It was built in 1844 and recognized by Burlington County as School #97.



# Childhood at Batsto

In 1876 there were 20 students in several grades. The teacher was Emma McAlvaine. She was 17 years old and earned $28 a month. The residents of the village paid $1 a week for each child who attended the school. Most working class children only went to school for five or six years. When the school closed, probably in the 1880s, the children had to go to Pleasant Mills School. There were no buses; they had to walk in all kinds of weather.

There were no doctors in Batsto and no hospitals nearby. Diseases that are less heard of today such as dysentery, measles and diphtheria were feared. The childhood mortality rate was much higher than it is today. Nevertheless, children grew, learned and eventually started their own families. Many families stayed at Batsto for several generations.

Name:_____

# Childhood at Batsto

1. Think about your lifestyle.

- Do you have chores or other responsibilities at home?
- Look around your house. What are your favorite things?
- How much free time do you have?
- What do you do for fun?
- What is your town like?

2. Look at the chart provided and complete these activities.

- In the first column, write information about your life.
- In the second column, write what you think was true for children in 1880.

3. When you visit Batsto Village you will hear about the daily life of children. Complete the third column with information you learned during your visit and see if your predictions were accurate.

4. Finally, write a short paragraph comparing your life with that of a child in 1880.

Name:_____

# Daily Life Comparison Chart

| | My Life | Predictions | What I Learned |
|---|---|---|---|
| **Chores** | | | |
| **Free Time** | | | |
| **Possessions** | | | |
| **School Life** | | | |
| **Clothes** | | | |
| **Community** | | | |
| **Allowance** | | | |

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# The General Store

## Synopsis

Shopping is an important part of everyday life. Today our options for goods and stores are almost limitless. This lesson compares our experiences with those of the residents of Batsto. Students will read about the company store system and get an appreciation for how the lives of workers here were controlled by the owners of the company.

## Objectives

- To compare goods and prices of the 1880s with those of today.
- To contrast the company store system with the free market system.
- To draw conclusions about how people today earn and spend their money compared to workers in the 1880s.

## Materials

- "The General Store"
- Price list of goods sold at the general store
- Activity sheet
- Grocery store ads from the newspaper or internet

## Curriculum Standards

**State of New Jersey Social Studies Standards**

*6.1 Social Studies Skills*

A1 Explain how present events are connected to the past.

*6.4 United States and New Jersey history*

A2 Compare family life in a community of the past to life in a community of the present.

*6.5 Economics*

A1 Distinguish between goods and services.
A3 Explain the three functions of money in the economy.
A6 Define consumers as buyers and producers as workers and sellers.

B2 Describe products and services that are developed, manufactured or grown in New Jersey.

Name:_____

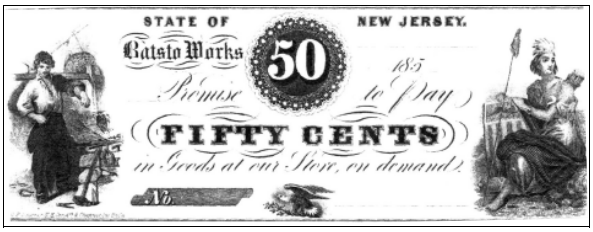
# The General Store

Shopping is a very important part of our everyday life. Think of all the different stores and goods available for consumers today. List some common items people buy and the stores in your area where they are available.

| Goods | Store |
|---|---|
| | |
| | |
| | |
| | |
| | |
| | |
| | |

Batsto residents did not have the shopping choices that we take for granted today. Almost all of the things they needed to buy came from one place, the Batsto General Store. There they could buy food, tools, clothing, toys, medicine and other items. Goods were brought in from cities like New York and Philadelphia. The goods offered in the store were limited to what the clerk decided to sell.

Batsto was always owned by the family who ran the industry there. Therefore, the General Store was a "company store." It was owned and supplied by the owner of Batsto. Since the owner of the company supplied all of the goods for sale in the store, the money from the workers' purchases would go back to the owner of the company. In fact, at one time the village workers were not paid in cash. They were given a form of money called "scrip." Scrip was paper money that was printed by a company and given to the workers. It could only be used at the company store. The workers had no real money of their own.



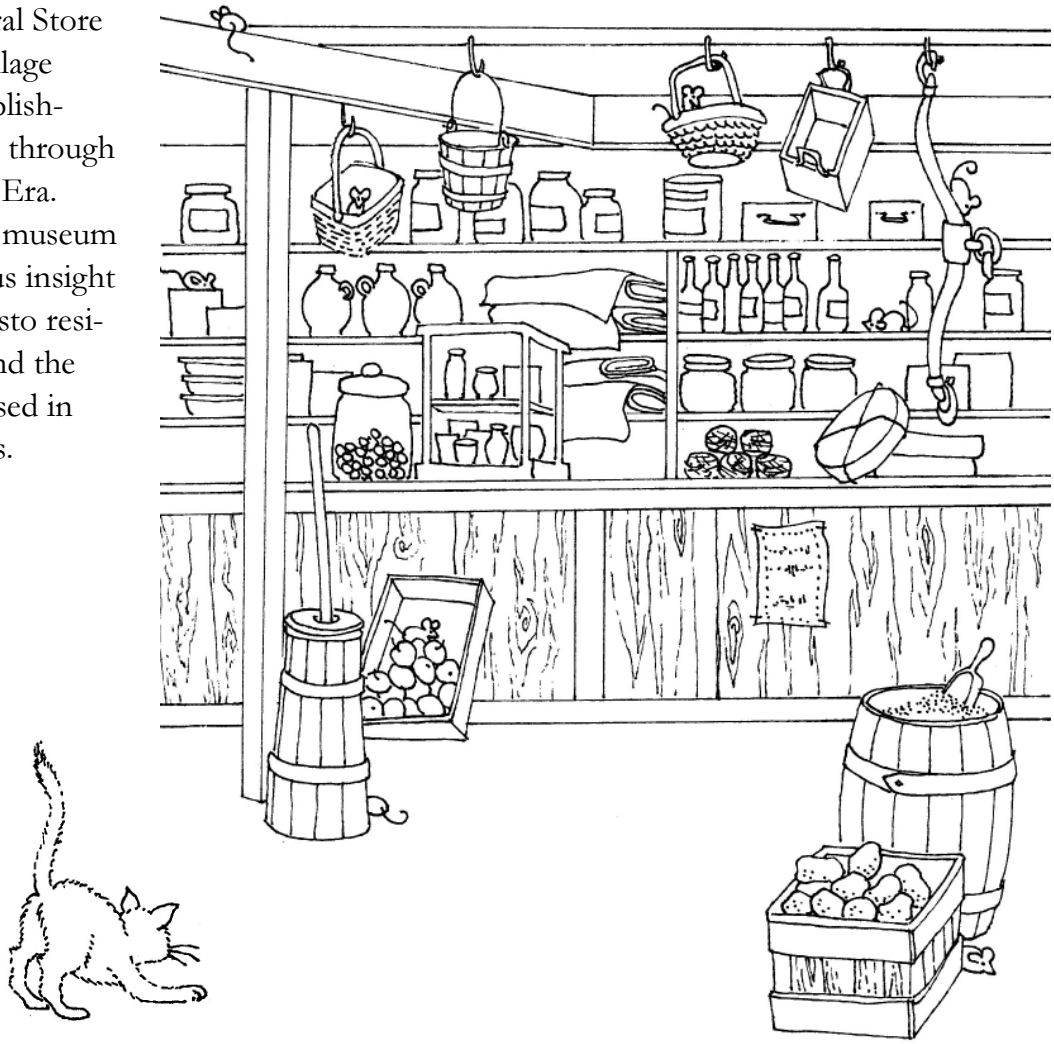

In the late 1800s the idea of catalog shopping was developed. The first companies to deal in mail order goods were Sears & Roebuck and Montgomery Ward. Fortunate people who could save some money ordered items not available at their local store and had them delivered to their homes.

# The General Store

Although village residents worked very hard for long hours, they earned little more than what they needed for basic living expenses. Working class families tried to make as many of their necessities as possible. In the 1880s most women did not work outside of the home. Instead, they made clothing for their family, churned butter from cream, baked bread and made meals from scratch (without prepackaged ingredients). In the summer they planted gardens and then preserved fruits and vegetables for use in the winter. What they could not produce for themselves, they bought at the General Store.

The use of credit is very common today. We charge our purchases and get a bill each month. Customers at the Batsto General Store bought things on credit also. But, instead of using a plastic card and getting a bill in the mail, the clerk would write a list of the purchases made by each family in a ledger (book). At the end of the month, each customer would settle the bill with the clerk. Sometimes the worker had little or no money left. Sometimes he was even in debt to the store.

Batsto General Store served the village from its establishment in 1784 through the Wharton Era. Today, it is a museum which gives us insight into how Batsto residents lived and the goods they used in the late 1800s.



Name:_____

# The General Store

You are Mr. Phillips, a resident of Batsto in 1885. As a typical worker you earn about $30 a month working for Mr. Wharton and doing odd jobs around the village. Of that, you must pay $2 a month to Mr. Wharton for rent. Think about what you will need for your family of five and complete the activities that follow.

## Activity A

1. Make a shopping list from the items commonly bought at the general store from the list provided. Keep track of the price of the items on the chart below.
2. Add up the total price for the goods you need in the column "Price in 1885."

| Goods | Price in 1885 | Price Today |
|---|---|---|
| | | |
| | | |
| | | |
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| | | |
| | | |
| | | |
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| | | |
| | | |
| | | |
| | | |
| **Totals:** | | |

Name:_____

# The General Store

## Activity B

What do you think you would pay for the goods on your list from Activity A today? Look at some grocery store ads and fill in the last column with today's prices. Calculate the total price of your grocery list with today's prices and see if your prediction is correct.

## Activity C

After reading about shopping in 1880s and comparing it with shopping today, answer the following questions.

1. In addition to the basic expenses for food and clothing, what do you think the residents of Batsto in the 1880s bought with their earnings?

_____

_____

_____

2. What expenses do people have today that workers in the 1880s did not have?

_____

_____

_____

Name:_____

# The General Store

| Goods | | Price 1885 | Price Today |
|---|---|---|---|
| Flour | 5 pounds | $0.14 | |
| Bacon | 1 pound | $0.12 | |
| Butter | 1 pound | $0.35 | |
| Eggs | 1 dozen | $0.21 | |
| Milk | ½ gallon | $0.13 | |
| Potatoes | 1 peck | $0.19 | |
| Coffee | 1 pound | $0.28 | |
| Sugar | 5 pounds | $0.34 | |
| Olive oil | 1 quart | $0.20 | |
| Salt | 3 pounds | $0.08 | |
| Beef | 1 pound | $0.15 | |
| Ham | 1 pound | $0.10 | |
| Chicken | 1 pound | $0.13 | |
| Soap | 1 bar | $0.11 | |
| Men's Oxford shoes | 1 pair | $1.75 | |
| Calico fabric | 1 yard | $0.10 | |
| Coffee pot | | $0.50 | |
| Candy | 1 piece | $0.01 | |
| Pine table | | $1.50 | |
| Cradle | | $1.32 | |
| Looking glass | | $4.50 | |
| Men's pants | 1 pair | $1.25 | |
| Socks | 1 pair | $0.20 | |

# Iron: An Industry that Created a Town

## Synopsis

Batsto began as an iron manufacturing center. Without the natural resources available for this industry as well as waterways for transportation of products, the community would not have developed as it did. While glass manufacturing, and later farming, added to the village's long history, it was iron that made the major contribution to Batsto's early formation. The iron making process is not easily explained on an elementary level. The basics are described in this lesson with the emphasis on the resources and people who made the industry possible.

## Objectives

- To demonstrate knowledge of the iron making process by completing the flow chart provided.
- To acquire basic vocabulary related to the iron making process.
- To use research skills to learn about modern iron making and usage.
- To make connections between the past and the present by comparing the process for iron manufacturing and products of that industry.
- To contrast jobs related to the iron industry with jobs today.

## Materials

- "Iron: An Industry that Created a Town"
- Activity sheet
- Iron making flow chart
- Access to the Internet or printed research materials

## Curriculum Standards

**State of New Jersey Social Studies Standards**

*6.5 Economics*

A4 Discuss how natural, human and capital resources are used to produce goods and provide services.

B2 Describe products and services that are developed, manufactured or grown in New Jersey.

*6.6 Geography*

B3 Describe the geography of New Jersey.

B4 Discuss factors involved in the development of cities.

E2 Explain the nature, characteristics and distribution of renewable and non-renewable resources.

# Iron: An Industry that Created a Town

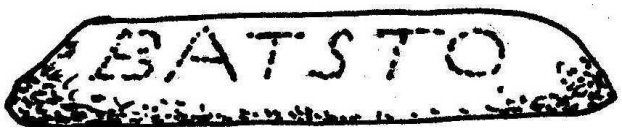
Iron is a very heavy and durable material. It is used in industry and for common household items. After processing, it results in a heavy black product. Look around you. What common items do you think are made of iron?

When iron is refined and purified, steel is produced. Steel is lighter in weight and color but is still very durable. What do we use steel for?

In the 1800s iron was a very important product. The production of iron brought about the birth of local industry in South Jersey.

Before any products could be manufactured from iron, a lengthy and difficult process was needed to take the iron from the ground, melt it and purify it. Iron making thrived at Batsto because the raw materials and natural resources needed were found here. They were:

1. **Bog Iron** - Decaying vegetation in the water of the New Jersey Pinelands reacted with iron in the soil and caused it to rise to the surface. There, it oxidized (combined with oxygen) and collected in bogs and on the shores of local streams. This iron ore was then collected by people in boats. You can see a pile of bog iron when you visit Batsto.



*Pig iron*

2. **Flux** - a cleaning agent. The mineral lime, taken from sea shells in the area, took impurities out of the bog iron.

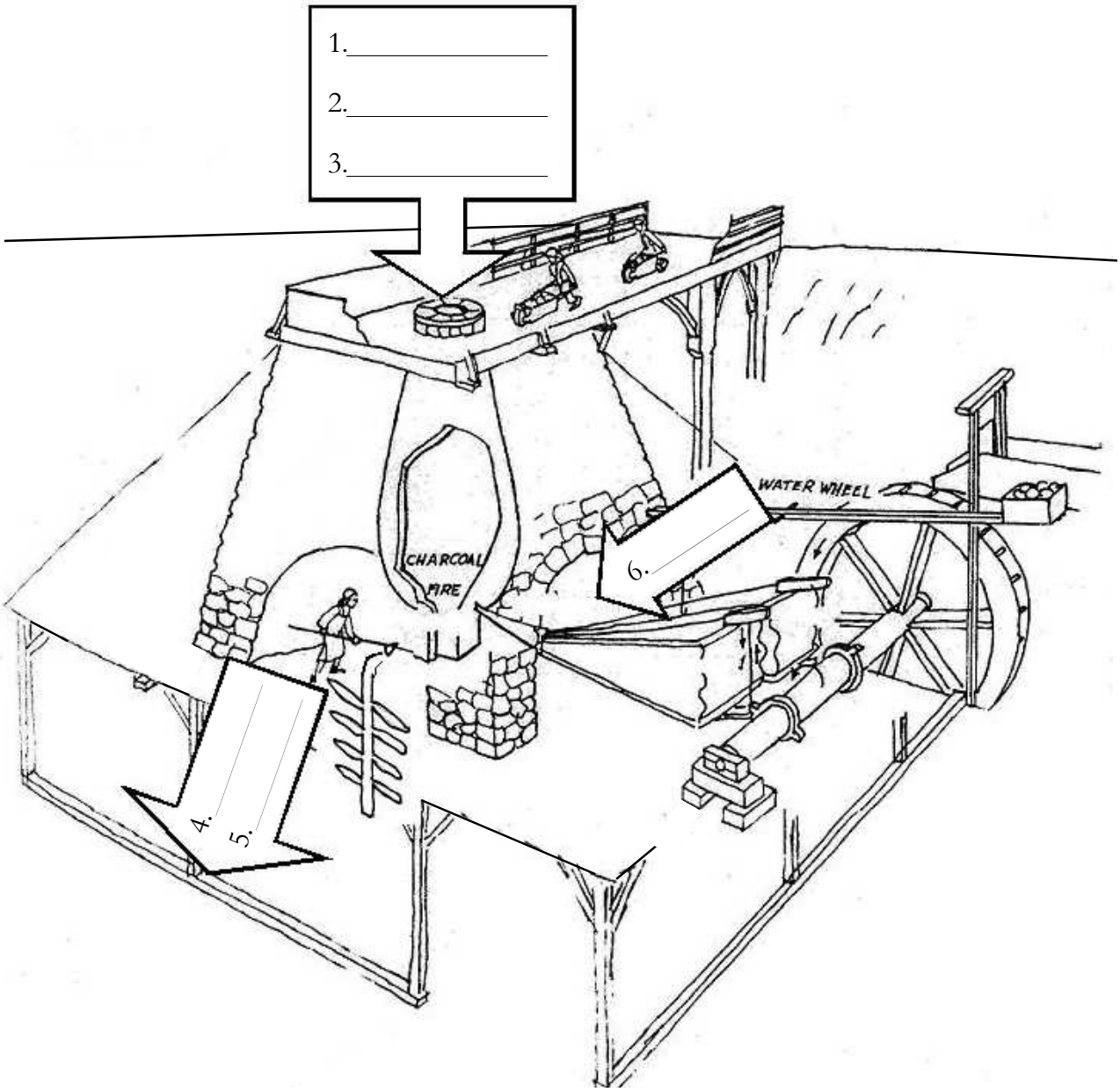
3. **Charcoal** - Because it burns much hotter than wood, charcoal was used to fuel the furnace. It was made locally and hauled to the village by wagon. It is estimated that an acre of forest was cleared to run the furnace for one day.

4. **Water** - A waterwheel operated a bellows which forced air into the furnace. The air helped increase and maintain the high temperature needed to melt the iron ore.

Name:_____

# Iron: An Industry that Created a Town

## The Iron Furnace




Label the following items in the diagram:

- Bog iron ore
- Air
- Slag
- Charcoal
- Pig Iron
- Flux

# Iron: An Industry that Created a Town

In addition to natural resources, of course, people were necessary to run the business. Skilled workers, needed to supply and run the furnace, came to Batsto to find jobs. They remained here with their families and created a community which lasted some 150 years.

1. The **Ironmaster**, usually the owner of the company, employed many people to run his business. At Batsto, the members of the Richards family ran the company for 92 years and built the oldest parts of the Mansion you see today.

2. The **Founder**, or manager, knew exactly how to run the furnace to produce the best iron. He directed the other workers and was responsible to the ironmaster.

3. A **Collier** built a very special mound of wood known as a kiln. After burning the wood, charcoal was produced. This was used to fuel the furnace. The furnace burned night and day for several months at a time. In the museum at Batsto you can see pictures of the actual charcoal making process. Also, on the property is a small example of how a kiln was constructed. Look for it as you approach the bridge.

4. The **Molders** created a pattern in a damp sand mold into which the molten iron was poured. Have you ever made a sand castle at the beach using a plastic mold? When you turn it out, the damp sand holds the shape of the mold and any decorations that are on it. That is similar to what a molder did. He used extremely hot, molten iron. He built the molds and poured the iron very carefully because he was only paid for the pieces that came out unbroken.

5. The **Gutterman** drew iron the molders didn't use into channels in the sand, which formed bars known as pigs. They were called pigs because the bars that came off of the main channel looked like baby pigs nursing from their mother. The gutterman also disposed of the waste product, or slag, which contained the impurities that had been taken out of the bog ore.

Completed products were sold to people in the area or shipped to large cities like Philadelphia or New York. The location of Batsto, near navigable rivers and the bay, made shipping to distant customers possible. At one time Batsto was well known for producing high quality iron products.

Name:_____

# Iron: An Industry that Created a Town

Research the modern iron making industry. From your research compare the industry today with what you have read about the iron industry at Batsto.

1. Many skilled workers were needed for the production of iron in the 19th century. From the job descriptions you have read, which jobs would have been eliminated or done in a different way in modern iron making?

2. How are goods made of iron produced today? Where are the major iron producing areas in the United States? Do we make all of our iron and steel products or do we import them?

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# "Lights" in the Pines

## Synopsis

Glass making at Batsto replaced iron making when the iron industry moved to Pennsylvania in the mid-1800s. During a 20-year period Batsto produced glass for windows and street lights. The village was kept alive but success was short lived. By 1867 the business was bankrupt and the village was for sale. The glass making business was significant in this area and provided work for the village residents.

## Objectives

- To acquire basic vocabulary related to the glass producing industry in New Jersey.
- To use research skills to learn about local glass making companies.
- To make connections between the present and the past by comparing glass producing centers in the South Jersey area.

## Materials

- "'Lights' In The Pines"
- Research chart
- Access to the Internet

## Curriculum Standards

**State of New Jersey Curriculum Standards**

*6.5 Economics*

A4 Discuss how natural, human and capital resources are used to produce goods and provide services.

B2 Describe products and services that are developed, manufactured or grown in New Jersey.

*6.6 Geography*

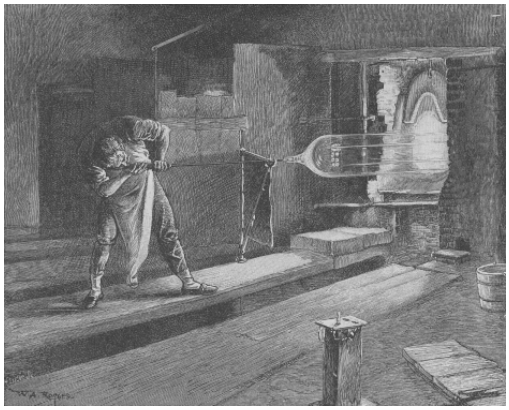
B3 Describe the geography of New Jersey.

B4 Discuss factors involved in the development of cities.

E2 Explain the nature, characteristics and distribution of renewable and non-renewable resources.

# "Lights" in the Pines

When you think of "lights" you probably think of lamps and electricity. If you were working at Batsto glass works in the late 1800s it would mean something completely different. "Lights" were window panes. Batsto produced glass for windows and street lights from 1846 to 1867.



When Jesse Richards understood that the iron industry in New Jersey was coming to an end, he wisely began looking for something new. Other people in the area had begun having success making glass. So, in 1846 he built the first Batsto glass works in a field near the saw mill. He had on his property the resources needed for glass production. The soft, light-colored sand of the Pinelands provided the mineral "silica." The forest provided wood needed to fuel the furnace. Village residents were hired as laborers.

Window glass had become in great demand on the East Coast due to the building of factories during the Industrial Revolution and the migration of people to cities. Jesse Richards became a member of the Camden Gas Light Company and sold thousands of gas lamp "lights" made at Batsto to the city. Camden began using street lights in 1852. Thousands were also sold to New York City.

When the glass works was in full production there were as many as 1,000 people living and working at Batsto. Many skilled workers were needed to keep the business going.

- **Wood Cutters** gathered fuel for the furnace
- **Carpenters** made boxes for shipping
- **Carters** drove the wagons which carried the final product for shipping
- **Blacksmiths** and **Wheelwrights** made iron fittings for wagons and horseshoes
- **Potters** made huge clay pots in which the sand was melted
- **Brick Makers** produced bricks needed in the furnace area
- **Glass Blowers** made the cylinders which were stored until orders came in
- **Glass Flatteners** heated and flattened the cylinders and smoothed the surface
- **Glass Cutters** cut the flattened glass into window lights of various sizes to fill the orders that were received
- **Packers** crated the finished product and prepared it for shipping

# "Lights" in the Pines

After many years of success, problems began. There were complaints about the quality of the glass and many pieces arrived at their destination broken. Competition from other area glass factories also hurt the Batsto business. When Jesse Richards died in 1854, the business began to decline and there were many years of financial troubles. Often, workers refused to work because they were not being paid. The business could not survive these problems and eventually closed in 1867.

The families that remained in the village worked at whatever jobs they could find in the surrounding area. Some chopped wood, worked on area farms picking berries or gathered sphagnum moss. After the fire of 1874, most of the village homes and some factory buildings were gone, along with any hope of revitalizing the village.

## The Process of Making Glass

1. Sand burned in an oven at 3000 degrees Fahrenheit for 5-6 hours. The sand melted and moisture and debris in the sand were burned off.
2. Lime added to the mixture helped remove impurities.
3. When the molten sand was the right consistency, a worker dipped a blowpipe, a long thin pipe with a hole through it, into the melting pit and picked up a mass of molten glass.
4. While blowing into the pipe, the mass was held over a wooden bowl. The curve of the bowl helped make the rounded shape.
5. When the ball of glass was the right size and shape, the worker moved over a deep open area called a "swing pit." There he would swing the ball back and forth to make it lengthen into a cylinder about 5-6 feet long.

6. The ends were cut off and the cylinder was split down its length.
7. The finished cylinder was hung in the storage house until needed.
8. When orders for window or gas lights had to be filled, the cylinder was reheated until it could be flattened and smoothed out.
9. Finally, in the cutting house, the flattened glass was cut into the size and shape needed.
10. It was then crated between layers of straw for protection, packed in wooden crates and sent out to buyers.

The next time you look out the window, think about it. Before it was made into the common item you use today, it started out like the sand you wiggle your toes in when you go to the beach!

Name:_____

# "Lights" in the Pines

## Overview

Batsto did not have the only glass works in the South Jersey area. There were several other glass making businesses here. Use the Internet or library sources to research other glass works in South Jersey which operated in the late 1800s. Fill in the information on the chart.

| Name | Began | Closed | Type of Glass | Additional Information |
|---|---|---|---|---|
| Batsto | 1846 | 1867 | Window | Made glass for the first street lights in Camden |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

# Village Visit Guide: A Walk Through History

## Synopsis

This activity is designed to be used during and after a village visit. The major areas and structures that can be seen at the village are summarized. A question follows each brief description. Students are encouraged to record information that they learn during the presentations on site. Some sections ask for students to look for specific things in or around the village. Others ask them to draw conclusions from the information presented.

## Objectives

- To synthesize information presented during a village visit.
- To draw conclusions about life at Batsto.
- To compare and contrast life as it is today with how life would have been in the late 19th century.
- To identify the important parts of a community and how they are interdependent.

## Materials

- "Village Visit Guide: A Walk Through History"
- Activity sheet
- Pen or pencil to record information
- A self-addressed, stamped letter or post card to be mailed from the post office on site
- A watch or time keeper to announce the departure and arrival times

## Curriculum Standards

**State of New Jersey Social Studies Standards**

*6.1 Social Studies Skills*

A1 Explain how present events are connected to the past.

*6.4 United States and New Jersey History*

A2 Compare family life in a community of the past to life in a community of the present.

*6.6 Geography*

B1 Identify the physical and human characteristics of places and regions in New Jersey.

Name:_____

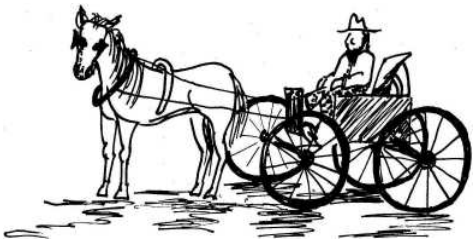
# Village Visit Guide: A Walk Through History

## A. It's in the Mail

Be sure to write a letter to yourself or a friend. Bring it in a stamped, addressed envelope. You can have it sent from the historic Batsto Post Office.

## B. What a Long Journey

| | |
|---|---|
| Before leaving your school, write the time of your departure here: | |
| What time did you arrive at Batsto? | |
| How long did the trip take? | |



In the 1880s people would have traveled to Batsto on horseback or by carriage. A horse travels 4 miles per hour when walking and 10 miles per hour at a canter. How long would your journey have taken by horse?

| |
|---|
| Walking: |
| At a canter: |

## C. A Very Different Lifestyle

People in Colonial times could not easily import materials as we do today. They settled where the land offered them what they needed. Batsto developed because the natural resources needed for iron production were found here. Bog ore was collected along the river, the forest provided wood for charcoal and shells found in the sand provided lime which cleaned the impurities out of the molten iron. (Look for bog iron outside of the Visitor's Center.) What are the main factors that people consider today when they decide where to live?

_____

_____

_____

_____

_____

_____

_____

_____

Name:_____

# Village Visit Guide: A Walk Through History

Today we are very concerned about our physical appearance and hygiene. In the 1880s working class people probably did not brush their teeth as often as we do. They didn't use deodorant and usually only took a bath once a week. Luckily, everyone smelled the same! What information about cleanliness and what conveniences do we have that weren't available to people at that time?

Today we treasure the tranquility and fresh air at Wharton State Forest. When Batsto was a working industrial center it was completely different. Long before anyone thought about protecting the natural environment, there were no laws against pollution. During the iron producing era, wood was constantly burning in the kiln to produce charcoal. In the furnace, the charcoal burned at 3000 degrees Fahrenheit to melt the ore. Even in the blacksmith shop wood fires burned to soften the iron for working into products such as nails and horseshoes. How do you think the air would have smelled and looked at that time?

Batsto was noted for the production of iron and glass. Both of these manufacturing processes used wood from the surrounding forest and deforestation occurred. During the Wharton Era the forest was cleared to make fields for crops. By 1900 almost all of the forest you see here today had been cleared. What you see is mostly new growth. What other things do you think the residents used wood for? Why is it important to preserve the trees and natural resources we have today?

Name:_____

# Village Visit Guide: A Walk Through History

Imagine the early years of Batsto when people, animals and carts traveled the dirt roads in the village. Today in the village you may hear cars or an airplane. What do you think you would have heard in the village in 1885? (Think about transportation and the manufacturing that went on in the village.)

During the industrial period, the village was mostly self-supporting. Workers here produced most of what they ate. What couldn't be grown or produced here was brought in from cities such as Philadelphia or New York. What animals and crops would you have seen in the village in the 1880s?

Some of the buildings in the village have plaques which note the year they were constructed. Find two of them (look for stone buildings). Identify them and the date of construction.

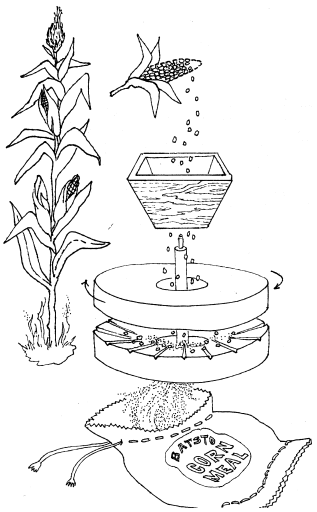
1. 2.

The Batsto Post Office was established in 1852 and is still in operation. It has the distinction of being the oldest post office in New Jersey that still uses its original name and location. Because of its historic importance no ZIP code is required. Mail is hand canceled. What does "hand canceled" mean?

Name:_____

# Village Visit Guide: A Walk Through History

The grist mill was very important to the residents of the village. There, grains were processed and flour was produced. Look for a large stone object in front of the grist mill. Feel the indented lines on the surface. What is this object? How did it work?




_____

_____

_____

_____

_____

What is the odd shaped structure next to the grist mill? Why was it made with the large open area?

_____

_____

Why were these two buildings next to each other?

_____

_____

The saw mill was a necessary part of the village. Wood products were used by the residents and sold in the surrounding area. Where is the saw mill located? Why was it built there?

_____

_____

## Get the Feeling

As you walk through the village try to picture it as it was in 1885. Or, even 200 years ago, when the iron furnace still burned. Think of how the people dressed and lived.

How is your community different from how Batsto would have been in one of those time periods? When you get home, write a paragraph on a separate piece of paper expressing your ideas.

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# Batsto Mansion

## Synopsis

Batsto Mansion reflects the passage of time and the personalities of its many owners. The interior is decorated in the Victorian style, as it was during the Wharton Era. It is a rich resource for interpreting that period of history. Viewed as part of Batsto Village as a whole, it stands in stark contrast to the workers' homes and offers us a glimpse of the extremes of society in the 18th and 19th centuries.

## Objectives

- To make connections between present styles of living and those in the past.
- To interpret a period in history by viewing a restored historic building.
- To compare and contrast lifestyles of the upper and lower classes in the 19th century.

## Materials

- "Batsto Mansion"
- Access to the Internet.
- Construction paper and art supplies

## Curriculum Standards

**State of New Jersey Social Studies Standards**

*6.1 Social Studies Skills*

A1 Explain how present events are connected to the past.

A2 Apply terms related to time including years, decades, centuries and generations.

*6.4 United States and New Jersey History*

A2 Compare family life in a community of the past to life in a community of the present.

*6.5 Geography*

B1 Identify the physical and human characteristics of places and regions in New Jersey.

# Batsto Mansion

Batsto Mansion was always the home of the owners of Batsto. It was built in several stages. The original section was begun in the late 1700s by the Richards family. Today the mansion reflects the changes made by Joseph Wharton in the late 1870s and early 1880s. He spent about $40,000 renovating the mansion, which at that time was a great amount of money. The changes reflect the Victorian taste of the period.

The entry hall was very important in an upper class Victorian home. It was carefully decorated to impress visitors when they entered the house. It also gave the family privacy. The door was normally opened by a servant who would then announce the guest to the family. The custom of the "calling card" was popular. A visitor would present a small, decorated card, like the business cards used today. It was delivered to the man or lady of the house. The family could then decide if they wanted to "receive" the guest, or not.

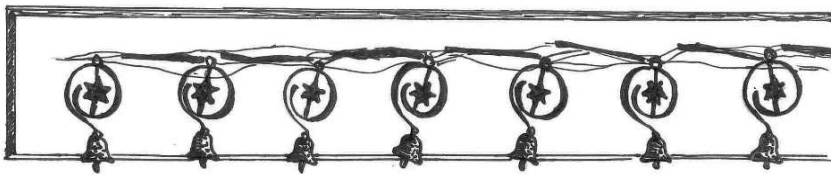
Since there were no TVs, radios or movies, people spent a lot of time visiting friends. Guests were entertained in the parlor where they would converse. The parlor was a very

formal living room with expensive decorations. Many times tea and snacks were served. Sometimes the men would go to another parlor to smoke. Behavior was much more formal in those days and people would wear their best clothes when they visited friends. Joseph Wharton made many interesting additions to the mansion. Some of his ideas were "high tech" for the time period. Originally, each room was heated with a fireplace. Mr. Wharton had a system for central heat installed in most of the rooms. One of the most interesting "modern" features he added was indoor plumbing. He had a water tank installed in the tall tower. When water was released, it went to the bathrooms to flush the toilets or to fill the bathtub. Indoor bathrooms were something that not many families had in the 1880s.

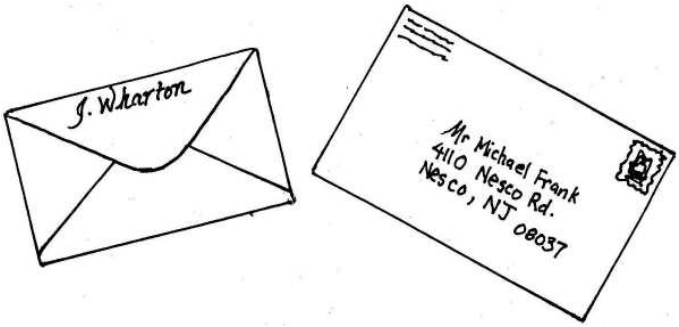
### Victorian Style

Victorian style is very fancy. Heavy drapes were used to keep the sun out. Furniture was heavy and highly decorated. This period and style were named for Queen Victoria of England. Victorian dress was also very fancy for the upper class. Women always wore long dresses and did not have their arms or legs exposed.

The upper floors were used for storage and servants' rooms. Since servants worked long hours, sometimes every day of the week, they often lived in the home of the family that employed them. However, they didn't share the family's living space. There were bells on the wall of the servant's rooms. Each bell was numbered and connected to a bell pull in a certain room in the mansion. When the bell rang, the servant knew which room to go to.



Batsto Mansion is an important part of New Jersey history. It gives us an idea of how an upper class family lived. Together with the village homes, we see two levels of society and two lifestyles in the 19th century.



Name:_____

# Batsto Mansion

## Activities

1. Think about what you saw at Batsto Village or research Batsto Village on the Internet. Compare the mansion with the homes of the village workers. How do you think life in the mansion was different from life in a worker's home?

2. Imagine you were going to design a mansion for yourself today. Draw a diagram of the rooms you would build. In a short paragraph tell what features you would include in your mansion and what you would do there.

# Atsion: A Journey Through Time

## Synopsis

Similar to Batsto, Atsion started as the site of an early industrial center. Through many transformations, it produced iron and agricultural products. While most of the historic buildings have been destroyed through neglect or fire, the mansion has been restored to its splendor of the Richards Era. Now considered mainly a recreation area, Atsion is part of Wharton State Forest.

## Objectives

- To identify specific important time periods during Atsion's history and the products related to that period.
- To organize historical information and place facts on a timeline.
- To make connections between natural resources and the development of a community.

## Materials

- "Atsion: A Journey Through Time"
- Activity sheet
- Pictures from internet, text resources or those taken during a site visit

## Curriculum Standards

**New Jersey State Social Studies Standards**

*6.1 Social Studies Skills*

A1 Explain how present events are connected to the past.
A2 Apply terms related to time including years, decades, centuries and generations.
A4 Organize events in a timeline.

*6.4 United States and New Jersey history*

A2 Compare family life in a community of the past to life in a community of the present.

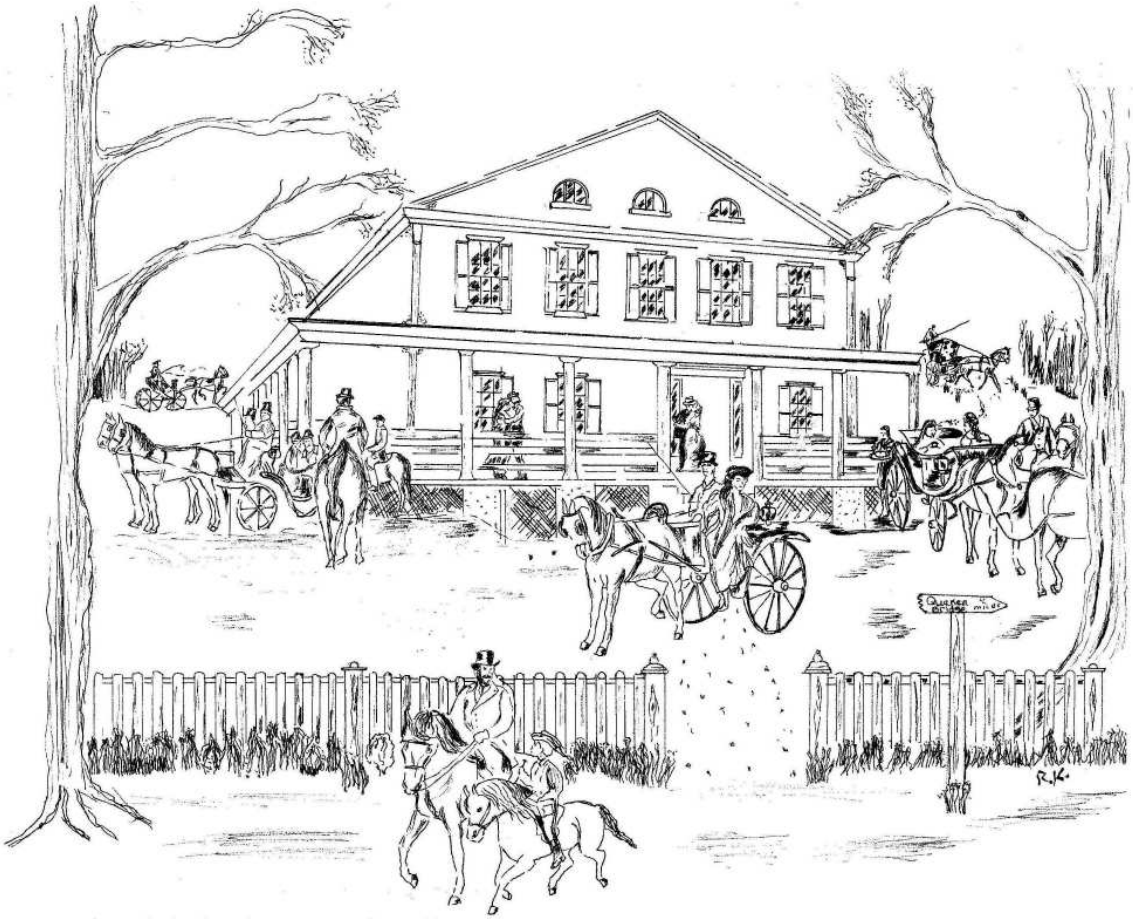
# Atsion: A Journey Through Time

Atsion is one of the "lost" towns found in the South Jersey Pinelands. Today people hike through the quiet forest to visit the ruins of old forges, mills and factories. They are surprised to learn that long ago they were the sites of industrial towns where hundreds of people worked and lived.

## The Early Years

Two hundred years ago, horses, carriages and wagons bounced along the sandy roads in the forest that connected the industrial villages of the Pinelands. You would also have seen teams of oxen pulling large carts loaded with pig iron and charcoal on the way to Atsion Forge. Later, they would leave with kettles, pipes, rails and other finished products that were sent to large cities like Philadelphia, Trenton and New York by ship.

Atsion Forge began working around 1765. When the forge was working, fires burned almost constantly. Most of the trees were cut to build homes, make fires for cooking and to make charcoal for the forge. Iron was heated in a fire until it was soft enough to bend. The blacksmith hammered the hot iron until he got the shape he needed for things like nails and horseshoes. Some iron was melted and poured into molds to make kettles and



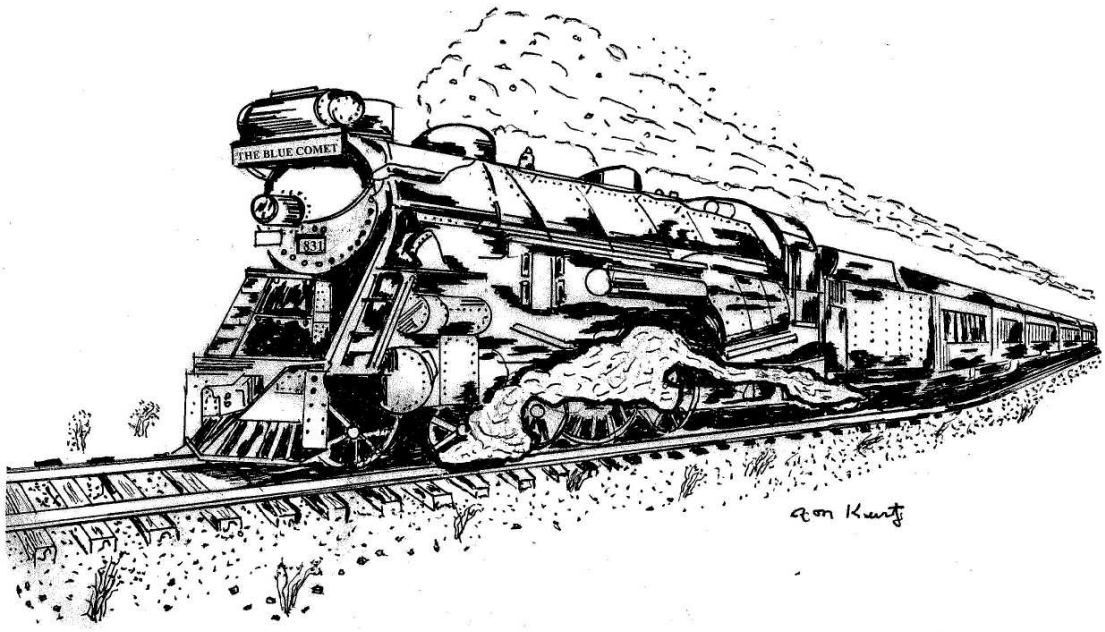
pipes. Instead of the peacefulness experienced by visitors today, the village was full of smoke and the loud sound of hammers hitting iron.

In 1794 the forge burned down. It was very expensive to rebuild creating financial troubles for the owners. Eventually, iron production ceased at Atsion until Samuel Richards purchased the property in 1819. He built an iron furnace and rebuilt the forge.

## Two Important Owners: Samuel Richards and Joseph Wharton

Samuel Richards owned Atsion between 1819-1842. He brought the town back to prosperity. Iron products were once again shipped to far away cities. The saw mill and grist mill were running and village homes were filled with workers and their families. In 1827 he built a general store which operated until 1946. Samuel also built a church for the village residents in 1828 on Quaker Bridge Road. It was enlarged with a new addition and is still used today.

The most important building that remains from that time is the mansion, built in 1826. It overlooked the furnace. Housekeeping supplies, storage and cooking were centered in the basement to keep noise and odor from the family and guests. The main floor has an entry hall, large parlors and a dining room. Family bedrooms are on the second floor and servants' rooms are on the third floor. Although it fell into disrepair, it has been restored by the State of New Jersey. Little has been changed from its original design.

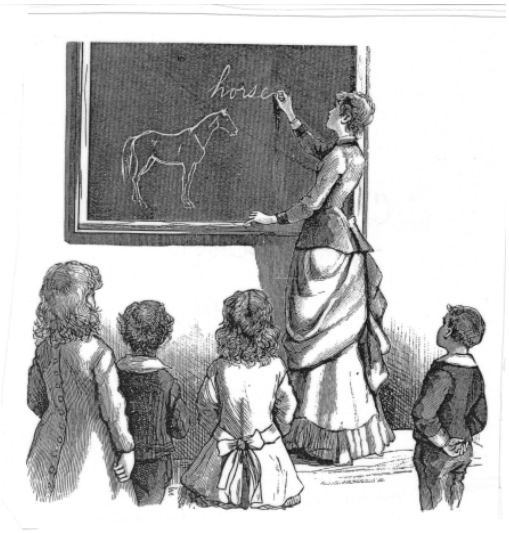


# Atsion: A Journey Through Time

Samuel Richards died in 1842. After that, Atsion went through many changes. When industry failed, the owners tried farming, lumbering and real estate development. In later years there was a mill which produced cotton goods. In 1892, Joseph Wharton bought the property.

At one time, a major railroad ran through the Pinelands. It reached Atsion in 1859. From Atsion Station, it transported goods made at the Atsion and Batsto industrial centers and cranberries during the Wharton years. Later, the famous "Blue Comet" train carried vacationers from North Jersey to Atlantic City, passing through Atsion. In the forest today you can still see the rusted, deserted railroad tracks with weeds growing around them. It is hard to imagine that at one time there were streets lined with homes nearby, a railroad station, and even a hotel! After the mid-1900s, cars replaced trains and the station was left to ruin. Nothing remains there today but the lonely tracks.

On Quaker Bridge Road, near the railroad, stands what is left of the one-room school house. Erected in 1916, this building replaced the original school built in 1872. It held classes until 1922. There was a pot-bellied stove in the room for heat and one teacher for all of the grades. Most children of working families only went to school for a few years. Because the children had to help with the cranberry harvest, classes usually didn't start until late in the fall. The teachers earned about $20 a month and lived with the family of one of their students. Wouldn't it be fun to have your teacher live with you?




## Atsion Historic Site

A few families remained in the village until the mid-1900s when the State of New Jersey acquired it as part of the Wharton property. Today, the forest welcomes hikers and campers. Visitors enjoy the open spaces, the clean air and the peace and quiet. A ride down busy Route 206 today will take you past Atsion Recreation Area. Families swim in the dark tea-colored water while cars and trucks pass by. On the other side of the highway, the newly restored Richards Mansion, the little white church, a few old buildings and some rusty railroad tracks are all that remain to remind us of the thriving village and the families that once called Atsion home.

Name:_____

# Atsion: A Journey Through Time

## A. Timeline

1. After reading the history of Atsion, construct a timeline of important dates and add the facts you learned from the reading.
2. Add drawings, pictures or images from the Internet to your timeline.

## B. Riding the Rails

Imagine that it is the year 1930 and you are traveling on the Blue Comet on your way from Jersey City to Atlantic City for a vacation. First, research the Blue Comet and then complete one or more of the following tasks.

1. On a map of New Jersey, draw the route of the Central Railroad of New Jersey. Indicate what cities and points of interest you might see while traveling on the train. Where did the train stop to pick up more passengers?
2. Find out how long a typical trip would have taken from Jersey City to Atlantic City on the train. If you made the same trip by car today, what route would you take? How long would the journey take?

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3. Tell what happened to the Blue Comet.

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# Extended Activities

## Synopsis

After investigating Batsto Village, the development of early industry and the Pinelands Reserve, students should have an understanding of the importance of this area in New Jersey history. Three culminating activities are provided which ask students to apply what they have learned to form opinions and evaluate how society deals with the preservation of historic places and ecologically sensitive areas.

## Objectives

- To use research skills to investigate the history of a community.
- To apply knowledge acquired through research and experience to new situations.
- To use higher level reasoning skills to form and express opinions.

## Materials

- "Extended Activities" activity sheets
- Access to the Internet
- Props and art materials appropriate for each specific activity

## Curriculum Standards

**State of New Jersey Social Studies Standards**

*6.4 United States and New Jersey History*

A2 Compare family life in a community of the past to life in a community of the present.

*6.6 Geography*

A4 Discuss the history of their community, including the origins of its name, groups and individuals who lived there and access to important places and buildings in the community.

B2 Explain changes in places and regions over time and the consequences of those changes.

B8 Discuss the value of American national heritage including historical preservation of primary buildings.

Name:_____

# Extended Activities: Wish You Were Here

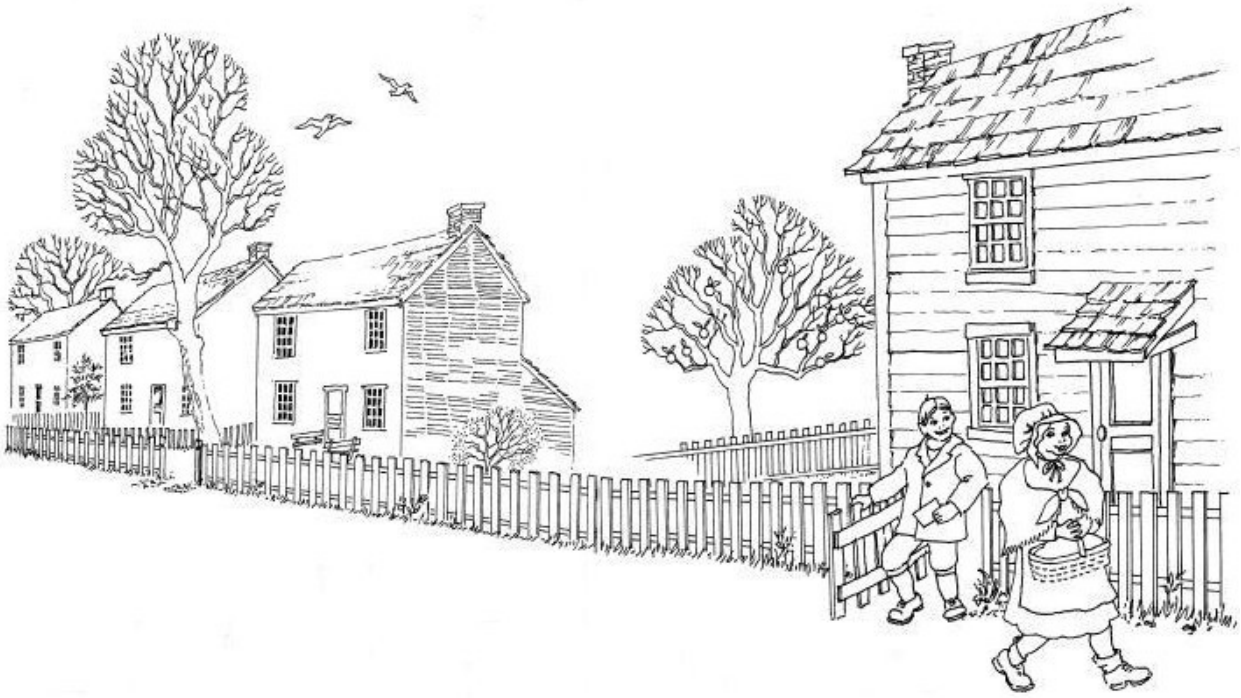
Choose one of the roles described below. As one of the characters visiting Batsto in the 1880s, write a letter to a family member describing the village from your point of view. Follow the guidelines and include the suggested information.

A. Imagine that you are visiting a member of the Wharton family and staying in Batsto Mansion. Remember that as an upper class family, the Whartons enjoy a privileged lifestyle and employed help to do their housework.

B. Pretend that you are visiting your cousin, one of the residents of Batsto. You are staying in a worker's cottage with a family of six. The father of the family works on the farm for Mr. Wharton and the mother cares for the family.

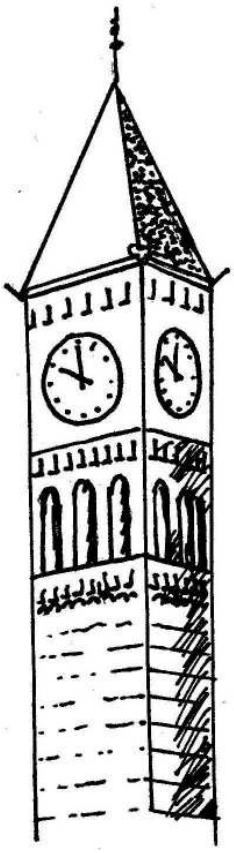
Ideas to include in your letter:

- Describe the mansion/cottage and its furnishings.
- Mention what you and other members of the family do every day.
- Tell about the activities going on in the village and what jobs the residents perform.
- Be sure to include a description of the village and the farm.
- Encourage another member of your family to visit and explain why he/she would be interested in what goes on here.



Name:_____

# Extended Activities: Save the Clock Tower



A. You are a member of the planning board for your community. A proposal has been made to demolish an old building in your town in order to construct a new store. To make an informed decision about the proposal, you and other members of the board will form committees to research the history of your town. Each committee will work on one of the following pieces.
   - Find pictures of preserved or restored structures that are famous in this country and other countries. Identify them and tell something of their importance.
   - Find examples of restored or preserved buildings in your community or neighboring area and explain their significance. For each example list the name, location, when it was built and/or restored.
   - Research the name of your town. What is its significance?
   - Draw a map of your community and pinpoint where historic sites are located. What are they used for now? Choose one of these historic buildings to be the one in danger of being destroyed.
   - What buildings (homes, businesses, factories and schools) were there 100 years ago which do not exist today? What replaced them?

B. Each committee will share their findings with the other committees. Each member will vote on the proposal to demolish the building in question and explain his/her opinion. Should it be demolished or saved?

## Expanded Activity

Each committee will examine the community as it is today and make a proposal to preserve one of the modern buildings for the future. Make a poster, create a TV announcement, or write an editorial for your local newspaper explaining why that particular building should be preserved.

Name:_____

# Extended Activities: The Big Picture

After reading and completing several of the lessons provided and visiting Batsto Village, you should be able to answer the three essential questions which follow.

1. a. Why did the thriving community of Batsto develop at this location?
   b. What contributions did the community make to the history and economics of New Jersey?
   c. What caused the decline of Batsto?

_____

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2. How did the life of working class people in the 1880s differ from that of people today?

_____

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_____

3. What can we learn from studying the ecology of Wharton State Forest? Why is it important to preserve the Pinelands for future generations?

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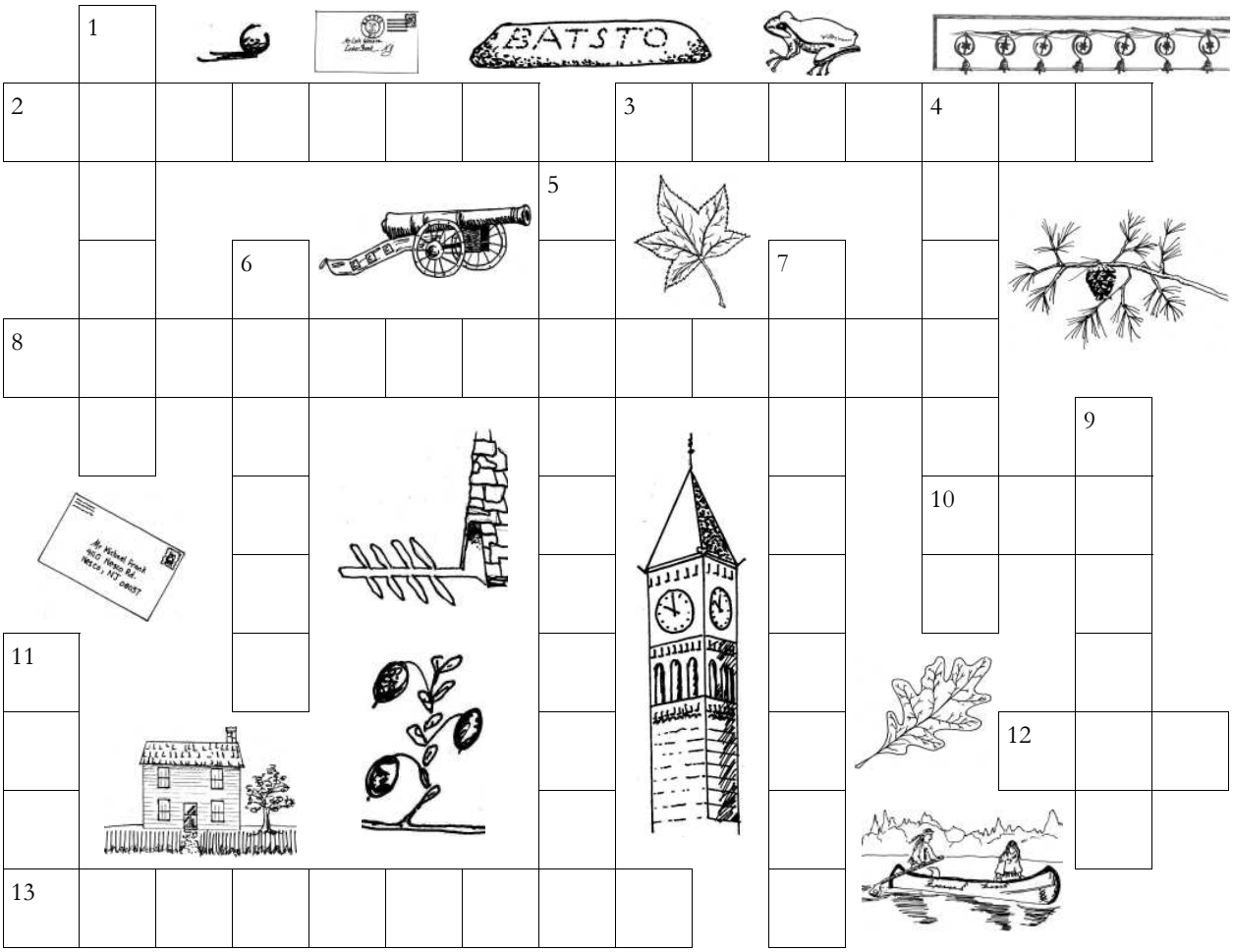
Name:_____

# Batsto Crossword

Using the vocabulary from the glossary, complete the crossword below.




## Across

**2** The person who made charcoal from wood.

**3** A natural drainage system which holds deposits of water in the Pinelands.

**8** Destruction of the forest.

**10** A period of time.

**12** A bar of iron produced at Batsto.

**13** The building where grain was processed into flour.

## Down

**1** Rock or metal in a liquid form.

**4** The worker who managed the furnace.

**5** Moved by the running water, it operated the bellows.

**6** Deposits of iron in the waterways of the Pinelands.

**7** 1.1 million acres of protected land in New Jersey.

**9** Present in tea and pinelands water.

**11** A waste product made after bog iron was melted.

# Glossary of Terms

**Agrarian** - based on agriculture

**Aquifer** - an area underground where water collects and feeds waterways

**Barren** - unproductive, lacking vegetation

**Bellows** - a device that expands and contracts to force a strong current of air into a fire, making it burn hotter

**Blacksmith** - a worker who shapes hot iron with a hammer and anvil, one who makes horse shoes. The wheelwright had a similar job but made iron fittings for wheels.

**Bog ore** - deposits of naturally forming iron found in the water ways of the Pinelands

**Charcoal** - fuel made by burning wood down to small dense pieces, it burns hotter than raw wood

**Collier** - a person who makes charcoal

**Deforestation** - destruction of wood lands by over cutting of trees and not allowing regrowth

**Era** - a period of time

**Fireback** - iron plates used to line the back of a fireplace

**Flux** - an additive used to clean impurities out of the molten iron, at Batsto, seashells were used for their lime content

**Founder** - the manager of the iron works, responsible for running the furnace

**Furnace** - an enclosure where intense heat is produced

**Grist mill** - the building where grains were processed into flour

**Gutterman** - drew liquid iron into channels to make pig iron

**Kiln** - an oven used to dry or harden substances such as wood or ceramics

**Molten** - in a liquid form

**Mortality rate** - rate of death

**Molders** - poured molten iron into forms to produce castings or finished iron products

**Munitions** - weapons, cannons, cannon balls, etc.

**Pig iron** - long bars of iron which were later melted down and molded

**Pinelands Reserve** - formed in 1978 by the federal government, this area is preserved or protected by local, state and national agencies to protect natural and cultural resources

**Saw mill** - building in which wood is turned into lumber ready for building

**Shot** - (shott- British spelling) bullets, cannon balls, shot from weapons

**Slag** - the waste product with impurities separated from iron in the furnace

**Tannin** - a chemical extracted from the bark of trees or fruit; dark in color it stains and was used in tanning leather. It is present in tea and in the water of the pinelands.

**Waterwheel** - a large wheel which was moved by the force of running water, as it turned, it provided power to machinery

*Batsto Mansion*

Historic Batsto Village is part of Wharton State Forest and is located within the Pinelands National Reserve. At Batsto, students can enter historic buildings, visit the museum and the Nature Center, hike wooded paths and enjoy the natural setting. When arranging a student tour, ask about a special presentation in the Children's Education Center.

**Batsto: A Teaching Resource** was developed to enhance understanding of the Pinelands National Reserve and the economic, social and political history of Batsto. Hopefully, making connections with the past will encourage preservation of these significant areas for the future.