



# New Jersey School of Conservation

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## Pioneer Life

Situated in a 19th century hand hewn log cabin, this session focuses on daily living skills and history of pre- industrial America. Discussion centers on providing living necessities, particularly food and shelter (housing and clothing). Activities such as cornbread preparation, and an exterior and interior cabin analysis illustrate how necessities were provided for in pre-industrial times. Comparisons are drawn between the environmental impacts of the pre-industrial lifestyle and our present lifestyle with special emphasis put on differing sources of energy, and renewable and nonrenewable resources use.

### OBJECTIVES:

1. Students will describe how life necessities were provided for in pre-industrial times, and how they are provided for now.
2. Students will be actively involved in food preparation techniques from the pre-industrial period.
3. Students will explain their dependence on the natural environment, and the components of it that they use as resources to support life.
4. Students' awareness of their dependence on exterior or produced forms of energy (electricity, petroleum products, etc.) will be enriched, by demonstrating how the people accomplished their work without it. (e.g. considering the impact of the Industrial Revolution on their lifestyles)
5. Students will briefly review some of the early history of New Jersey, especially of the northwestern part of the state.

### BACKGROUND INFORMATION:

The pre-industrial lifestyle is generally thought of as one that entailed many hardships and tribulations. This is true when using today's lifestyle as the standard. Much of existence and means of obtaining necessities in early times was dependent on physical labor requiring bodily energy. Today, machines or tools powered by forms of energy that come from outside sources (imported energy) are used to simplify tasks and increase production outputs. In most cases, using an imported form of energy requires the burning of a resource that releases emissions, causes pollution, and in some cases, degenerates a product that cannot be replaced (a non-renewable resource such as oil or coal). In pre-industrial times people accomplished their tasks without using imported forms of energy because such energy sources were not available or too hard to get. These early Americans were conservationist, but not by choice. They did not have possessions in abundance and had to labor hard for the things they did have, thus they were conscious to conserve those commodities that were scarce and were hard to obtain.

DeGroat cabin was home to 12 children and 2 adults. By today's standards, the cabin would seem extremely small to house 14 people. Building a larger house would require labor and resources that could not be spared or could not be obtained. Also, a larger living space would be more difficult to heat in the winter, requiring more labor to gather firewood. A large space was not needed as possessions were minimal and constantly in use (no need for storage).

### **MATERIALS NEEDED:**

Cooking materials are kept in DeGroat cabin, as are all the visual aids and toys. Cornbread ingredients and heavy cream for butter must be picked up from kitchen staff before class. Kindling and fire wood are also available in the cabin. SOC staff will give instruction on stove use if needed. Please do not light/use stove unless you are sure how to use it properly.

### **PROCEDURE:**

1. ***Start Outside the Cabin***  
Ask students to define "pioneer": the first person to settle in a territory or area, an innovator.
2. Introduce the session by setting the time frame that will be discussed; ask students what they know about the pre-industrial period. When was it? What does pre-industrial mean? Ask students to name the necessities of life. AIR, SHELTER, WATER, FOOD. This session will focus on how people provided for their food and shelter specifically; shelter can be considered in the venues of both housing and clothing.
3. Talk about shelter—perform an exterior analysis of the cabin. Ask students to list the natural resources used in construction. Ask them to determine which are renewable and which are non-renewable.
4. The cabin was built in the mid 1860's, moved from 5 miles away to this site by graduate students from Montclair State during the summer of 1975. The moving process required numbering logs, disassembling and then reassembling the building, and replacing those beyond repair.
5. Ask students to describe the steps necessary to build this cabin. The cabin was built by hand. The logs were shaped with a broad ax to fit together neatly (show broad-axe if available) the large slabs of chinking reflect amateurish carpentry technique since the logs should be better fitted to fit snugly on top of each other. The chinking, which is a thin shell inside and outside, is composed of powdered limestone [cement], sand, water and straw to form concrete. The timber, oak and American chestnut trees, were straight with a large diameter: 60-70 trees were needed to build the house; If you count up the total number of years of the trees used, they represent more than 3000 years of growth; 3500 hand-split shingles were used on the roof (the wooden shingles were deteriorating so it was replaced with a tin roof, which is much more durable); some iron was used on the house, but very sparingly, since it was difficult to mine from the earth and required a blacksmith to shape it.
6. Move to the outhouse. Talk about the outhouse i.e. outbuilding - any building that serves a needed function on the farm and is detached from the main structure. Point out that today we use this word to mean only one function—bathroom—compared to many meanings then. Other outbuildings were a springhouse, a carriage house, a barn, a silo, a chicken coop, and any number of other support buildings necessary for the functioning of the farm. This outhouse is a **smokehouse**, used to preserve meat. Point out the remnants of the leather hinge on right bottom of door; they had to improvise since iron

was scarce and leather was more easily available and more easily worked. To smoke meat, it was necessary to keep a small, slow-burning fire going in smokehouse; they needed to use green wood for this, usually hickory or maple (why?). The smokehouse needed constant monitoring—smoking meat was a very important job and usually given to a child 9-15 years of age. If the fire got out of hand, a family could lose its winter food supply.

Other ways to preserve foods included: Which do we use today?

**salting**—expensive; salt had to be imported, unless area was on a coast, then salt could be obtained from evaporated sea water and used in corning and pickling.

**drying**— used for meats, fruits and vegetables

**jellies and jams**—a means of preserving fruits

**cheese**—a means of preserving milk

They ate indigenous wildlife species such as bear, deer (venison), turkey, rabbit, squirrel, fish and other small game animals, as well as domestic animals such as pig, chicken, cow, lamb, and goat which they brought with them. Corn, pumpkin, strawberries and cranberries are indigenous North American plants which the Native Americans introduced to the Europeans. The early American settlers would have brought from Europe grain crops such as wheat, oats and rye as well as cabbage, beets and fruit trees— but not citrus.

## 7. *Move Inside the Cabin*

Have the students enter the cabin via the front door. Ask students to count the number of people, including themselves, that live in each of their homes. Ask them to compare their living space with that in DeGroat Cabin. Remind them that although we use this cabin as a classroom now, it was used as a home for two families, the DeGroats and the Sykes, for over 70 years. Ask students to enumerate the similarities and the differences between their own homes and DeGroat cabin. Consider similarities: building materials — general shape.

Differences: construction techniques [modern houses are framed]

- small size and only one room —why?
- lack of comfortable furniture and amenities—why?
- lack of running water—how would they have gotten water?
- how would they have taken a bath? List steps necessary.
- implications for water usage?
- energy usage?

8. Go back outside and demonstrate how to split wood with a hammer and wedge. Ask other adults to supervise this activity while the woodstove is started to cook cornbread.
9. Bring students back inside and while seated at the table demonstrate how the butter will be made. Ask 2 or 3 students to mix ingredients for cornbread. While the stove is coming to temperature, and the students are making butter, point out some items on display in the cabin. Ask students to tell you what some of the items are/were used for. Why did they have trouble with some of these? (Either students don't know the meaning of certain words like: sconce, eaves, sad iron OR they may never have seen the tools/processes [hog scraper, niddy noddy], since factories make these products today.)
10. After you begin cooking cornbread, go upstairs and point out the bed and artifacts upstairs.

11. Return downstairs, serve cornbread and butter, engage students in a general review of topics covered.
12. If time/weather permit take students outdoors to use stilts and try other homemade toys.

### **WRAP-UP INTERPRETATION:**

Gather students together and ask them to cite some differences between life in pre-industrial times and life now: lack of privacy and sanitation; a lot of time was needed to get the basics for survival, which left them little time for things like school and playing; no external sources of energy, such as electricity, so many of their life support tasks took more effort. Discuss present day use of electricity and how it is generated—can we do without some items sometimes?

Ask them to review and enumerate the basics of survival.

How did the DeGroats get these basics?

What did they get from the forest to support their lives?

How about today, what do you get from a forest like Stokes that is necessary for your life (e.g. oxygen, lumber, medicines, etc.)?

Is there anything that you can do to be sure that we always have forests in healthy condition?

Consider resource use and those resources that are renewable vs. non-renewable.

### **NGSS Standards**

MS-ESS3-5

Ask questions to clarify evidence of the factors that have caused the rise in global temperatures over the past century.

Lesson Created 2012 by Tom Card; Revised 2017 TC and JCK