Hands-On Social Studies for All Learners

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An Honors Thesis

by

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Abstract

The hands-on approach to teaching social studies has become very popular over the past few years. Many teachers use this approach, but not all of them take full advantage of the opportunities that the hands-on approach provides. I produced several artifacts that could be used to teach hands-on social studies, and I documented the processes I went through to produce these items with pictures and written descriptions. Furthermore, I gave brief histories of the items, because placing artifacts in the proper context is crucial for using the hands-on approach to teaching social studies. I also gave a brief description of the benefits of artifacts in the social studies classrooms for a wide variety of learning styles.
People learn in a wide variety of ways, and elementary students are no exception. Some students are stimulated visually and can vividly recall what they have seen, while others can better remember information they have heard. Still other students learn most effectively from touching and handling concrete objects. All of these students, however, can benefit greatly from the use of artifacts, so these kinds of materials can be used in a variety of different ways to stimulate many kinds of learners, which is why they are such effective teaching tools.

Certain artifacts are particularly beneficial to use with students. Teachers can “stimulate them to practice the processes of a historian” by having them examine artifacts (Morris 2000, 32). Any artifacts that the students can connect to real-life experiences will be particularly useful learning tools. All students, for example, wear clothes, and clothes tell us about the styles and available materials of certain time periods. All students also need to eat, so artifacts such as wooden spoons or a large mortar and pestle that reveal information about food preparation and consumption of certain time periods are particularly relevant to students. In addition, most elementary students are very adventurous, so they would relate well to the fur trappers who braved new territory in our country some two hundred years ago and brought back the much sought after furs. Furthermore, modern students enjoy the benefits of electricity and light bulbs, so using candles for light could be a revealing activity that shows the changes illumination has undergone in the typical home over the past two hundred years. All of these artifacts deal with basic needs, which make them even more meaningful for the students.
Rationale

Visually stimulated students can benefit greatly from using artifacts in the classroom because viewing demonstrations helps them learn (Cuyamaca 2003). These students love to analyze things with their eyes, so they carefully study details of objects or pictures and remember aspects regarding shape, color, and size. They then associate these details with the objects or pictures, in order to remember them.

Visual learners benefit from both using and watching hands-on objects being used. They might read about different clothes that pioneers wore in the past and remember a little. They could even hear a teacher talk about these clothes, and it would reinforce the information. If they actually saw a classmate put on these same clothes or even put on the clothes and looked in the mirror, however, the experience would be much more valuable. This would allow them to remember the color, shape, size and fit of the clothes. The teacher could then ask the students questions the help them analyze these features and compare them to modern clothing. The students might then gain a better understanding of the differences in lifestyles of this country’s pioneers and modern day citizens. As an extension to the lessons the students might even draw actual pictures of the clothes with crayons and a piece of paper, as this act often helps visual learners process new information (Tourdot 2003). The pictures would reinforce the details of the clothes they observed, such as color and fit.

Auditory learners understand information best through sound, so they do very well in a class with a lot of focused sound. They can hear their teacher or classmates talk about something and remember it better than if they read it or saw it with their own eyes.
Auditory learners can also benefit a great deal from hands-on objects. They might hear their teacher talk about using a mortar and pestle to grind corn. These learners would listen intently as their teacher explained how he or she would place the kernels of corn in the concave mortar and smash it into tiny pieces with the end of the large wooden pestle. They would also hear the excitement of their peers explaining how they crushed the kernels into a fine meal with just the mortar, pestle, and their own strength. Along with the verbal explanations, they would actually hear the corn being crushed. The mortar and pestle would produce a loud thud as they collided, producing corn meal and this simple sound would help them realize that getting food was not always as easy as it is today. This task took much more time two hundred years ago than it does today, and actually experiencing the process would help these students process this information.

Still other students learn best through their sense of touch. This is the “smallest and most challenging group of learners” (Zimmerman 2001). These students, often called tactile or kinesthetic learners, love to actively experience the world around them. They might find reading or listening to a lecture very boring, and they might not even benefit a great deal from looking at pictures.

This type of learner probably thrives the most with hands-on objects, and they can associate many important aspects of an object to their sense of touch. They could hear their teacher talk about the fur trade that went on in the United State about two hundred years ago and be very uninterested. They could read about and see pictures of the same topic and retain little information. If they were to actually feel the fur of a beaver, mink, or fox, however, their interest would most likely be sparked. Just running their fingers
across the soft fur and touching and bending the tanned skin would capture their
attention. It would make them wonder what kind of person trapped or hunted these
animals. They would have questions about who wore the furs, where the animals live or
lived, what kind of animals have good fur, and how the fur trade has changed. This
would open the door for them to ask questions and find out more. It might even
encourage the students to seek out the answers through books, and pictures on the topic
would be even more meaningful to the students. The students' research could lead them
to meaningful information about the history of the fashion that drove the fur trade and the
geography of the land that the fur trappers explored and used.

Dipping candles by hand would be another excellent process for these students to
experience, as they would enjoy cutting and tying wicks in preparation to dip the candles.
They would also take in other sensations such as the heat of the fire and the aroma of the
melted wax, and the sum of these sensations would be a better understanding and
appreciation of the process that people went through years ago simply to see at night.
This could be used by a teacher to introduce the history of candles, as it would give the
students a connection with the process and materials used to make a certain type of
candle.

Other artifacts, such as wooden spoons, could incorporate a variety of different
learning styles. Kinesthetic learners could pick up a wooden spoon and a metal spoon
and compare several different properties. The balance, proportion, and feel of the
material would be very different when comparing these utensils. A Venn diagram could
then be made to compare and contrast the spoons, which would be
very beneficial for visual learners. Auditory learners could drop both spoons and hear the difference in sounds the two spoons make. These sounds might then spark their curiosity and desire to compare and contrast other aspects of the spoons that are more closely related to the history and economic effects of the different kinds of spoons.

It is quite evident that hands-on teaching materials are very versatile and effective for a variety of different learning styles. Whether the students are visual, auditory, or kinesthetic learners, they will reap great benefits from being exposed to artifacts such as period clothing, tools used to prepare food, animal furs, primitive light sources, and eating utensils. The hands-on materials can be used in a variety of different ways to engage these learners and create a real and meaningful learning experience, which will make school more effective and enjoyable at the same time. These artifacts that represent basic needs allow young students, with a variety of different learning styles, to “construct understanding and build knowledge” based on the context in which their teachers place the artifacts (Field 1996, 141-143).

Process

While elementary students may have a wide variety of learning styles, almost all of them have one thing in common. They have a lot of respect for their teachers. This respect for teachers often depreciates as the students get older, but most students in kindergarten through grade five look up to their teachers in more than one way. For this reason, using hands-on materials can be even more beneficial. Materials produced by the teacher or students can be particularly beneficial because of the personal touch these artifacts carry. The students will show some interest in the objects their teachers produce
and share simply because their teachers showed enough interest in the objects to spend time creating them. Teachers can enjoy the topics they teach, and this excitement will carry over to the students.

A teacher who enjoys sewing, for example, could teach a great unit on the topic. They might bring in different sewing tools and teach the students about how sewing has changed throughout the years. This could be a good history lesson demonstrating how people were clothed in the past, and it could introduce the students to different types of production techniques. The students might gain more respect for people who sew and work in factories, and they might even realize that sewing and other things, often thought to be work that only women do, can and are also done by men. In fact, the rugged mountain men of the 18th century almost always carried a needle so they could make any necessary repairs to their clothes.

Students do not generally associate themselves with the past or the people of the past. They might realize, however, that they and their classmates look a lot like people in older pictures when they wear the same clothes. This might help them to think a little deeper about how people lived in the past and how much we take for granted. Sometimes something as simple as a dress or a shirt can inspire deep and reflective thought about the past and the present. Students making the comparisons of their classmates appearances in these clothes will most likely also make comparisons involving other basic aspects of life, such as work, food, and play.

A teacher who enjoys woodworking could make a crude mortar and pestle similar to the ones used by the pioneers of the United States and the Native Americans. The
students in this teacher's class could then crush corn with the mortar and pestle and compare this process to both grinding corn at a grist mill and going to the local supermarket to buy flour or cornmeal. This would compare and contrast both different time periods, and different people from the same time period. The students would see similarities between the Native Americans and pioneers and differences between these two groups and themselves.

A hunter could also bring his or her interests into the classroom to create a meaningful learning experience. After harvesting a coyote or a deer the teacher could skin these animals and tan the hides. These hides could then be brought into the classroom and handled by the students, which might spark their interest in the subject and make material covered on the fur trade or mountain men much more meaningful.

Actually experiencing a process that results in a finished product can add even more to the benefit of a hands-on experience. While viewing and handling artifacts is often a great learning experience, students may not have an appreciation for a certain tool or object until they use it or see it used first hand.

Students could learn a lot, for example, by simply hand-dipping candles. This process would capture the attention of many students simply because it involves intriguing things such as flames and molten wax. This relatively inexpensive process, however, can also teach students about several different aspects of light and work. The students would see how time consuming and tedious it was to make candles this way. They could also relate to this job since it was often done by children of the same age as
elementary students. They would probably also appreciate electricity and light bulbs if they were to use the candles they produced. Completing a Venn diagram comparing and contrasting candles and light bulbs would be a good way to increase this appreciation.

Artifacts relating to human needs can also be very valuable tools in a social studies classroom. All students eat food, and it would be very hard to find a student that does not use a spoon on a regular basis. For this reason, the students could learn a lot from a wooden spoon produced by their teacher. The students could then discuss the uses of the wooden spoon and the advantages and disadvantages of using this material for this particular eating utensil. The students might, for example, discuss the fact that wood is a better insulator than metal, so the handle of a wooden spoon is less likely to get hot than that of a metal spoon. This lesson could then go in a variety of directions, but with a little guidance the students would learn a great deal about the lives’ of people who lived long before them.

All of these artifacts, of course, must be used wisely in the classroom. Simply showing them to the students or having the students handle them does not provide the students with a good learning experience. The teacher must place the artifact in context for the student and relate it to relevant historical information. Otherwise, the teacher is simply playing show-and-tell with the students, which does not always lead to a meaningful experience.

Conclusion

In the end, however, teachers who use artifacts properly can increase their effectiveness in the social studies classroom by simply bringing their interests and hobbies to school with them. This will prove to be more effective than “force-feeding
approaches that we have sometimes come to adopt in school” (Dow 1993, 231). Whether they enjoy sewing, using a chainsaw, hunting, making candles, or working with wood, they can find a way to share these talents with their students and create meaningful social studies lessons. The artifacts will become “primary sources to learn about people and their lives” (Morris 2002, 70). The students will feed off the teacher’s enthusiasm for the topic and gain valuable knowledge that will help prepare them to be successful members of society.
Appendix A: History of Wooden Spoons

Wooden spoons have been around so long that it is impossible to trace them back to their origins. Early humans did, however, leave clues that tell a little about the use of primitive spoons. Archaeological evidence suggests, for example, that prehistoric people used chips of wood or shells as spoons (Andrian 2002).

Also, the Anglo Saxon word *spon* means a chip or splinter of wood, which suggests that wood was used to make spoons early in the history of Northern Europe. Dinner hosts in the Middle Ages often supplied their guests with spoons made of wood or horn. Wealthier people of the same time used spoons made of expensive metals such as gold and silver.

In the early 1600’s wooden spoons were listed in the inventories of the early settlers of the modern day United States, but Native Americans also sold wooden spoons made of cottonwood to these early colonists. Both rich and poor American colonists used wooden eating utensils for about a century, but after this time very wealthy colonists began to use metal eating utensils. It was not until well into the 1700’s, however, that metal eating utensils were used commonly in the American colonies.

The common use of metal eating utensils did not, however, mean the demise of the wooden spoon. In fact, wooden spoons continued to be used commonly long after the introduction of metal utensils, which were more expensive and difficult to produce. Wooden spoons are even a common sight in today’s kitchen. People still appreciate qualities of wood such as its light weight and good insulation.

Harder woods are generally preferred for wooden spoons because they have smaller pores and food doesn’t get caught in them as easily. Some common hardwoods from which spoons are made in the United States are cherry, maple, ash, apple, walnut, and oak. Woods used in other parts of the world are ebony, zebrawood, Brazilwood, koa, and cocobolo.
Appendix B: History of Mortar and Pestles

Mortar and pestles have been used for centuries for a variety of purposes. The most common use of these tools has been for pharmaceutical reasons, where they were and are still used to grind medicines and herbs. This type of mortar and pestle head is usually made of porcelain or rock, and the handle of the pestle is usually made of wood.

Larger mortar and pestles have been used in places such as Japan and Africa to grind grain and fruit. These mortar and pestles are usually made of wood. The Japanese version of the pestle resembles a wooden mallet more than a typical pestle.

Native Americans used different kinds of mortar and pestles. Cherokee and Caddo tribes used large mortar and pestles made from tree trunks and branches (Moore 2000). Pre-historic Native Americans used carved out bedrock as mortars to crush acorns, other nuts, and grains. They started with small depressions in the rock and made them deeper and deeper after hundreds of years of use. Many of these depressions can still be seen today. Other rocks and even sticks were used as pestles in the process.

Early European settlers of the modern day United States sometimes used large wooden mortar and pestles to grind corn. The mortar was usually a basin hollowed out of a tree stump or felled tree that could hold about a half bushel or peck of corn. The pestle was a smooth piece of hard wood about the size of the basin in the mortar. The ground corn was used to make different kinds of bread and mush. A much easier way to obtain this corn meal would have been to take the corn to a grist mill to be ground. This, however, would not have been practical for the few settlers that lived great distances from mills, so they made do with mortars and pestles that were often crudely fashioned out of wood.
Appendix C: History of Animal Furs and Skins

Began in the 1500’s as an exchange between Native Americans and Europeans, the fur trade would become one of the most important industries and factors in determining exploration and settlement of modern day Canada and the United States for about 300 years. The earliest fur traders were French explorers who arrived in modern day Canada in the early 1500’s. They offered the Native Americans kettles, knives, and other gifts to promote good relations, and in return the Native Americans gave the French pelts. By the late 1500’s a great demand for fur had developed in Europe, which encouraged additional exploration of North America.

This exploration was vital to the settlement of modern day North America. Fur traders discovered and served as guides on the Oregon Trail. The claims of fur traders also played a vital role in many places in determining the boundaries between the United States and Canada. Many modern cities, such as Detroit, New Orleans, St. Louis, Edmonton, Montreal, Quebec, and Winnipeg resulted from the settlement of trading posts built by fur traders and trappers.

The most common pelt that is associated with these fur traders is the beaver because it was the most valuable and hats made from these pelts defined style in Western Europe from the early 1600’s to the early 1800’s. In reality, however, muskrat, deer, raccoon, and fox hides were the principal furs for most mountain men and traders. The frontiersman known as Long Hunters, for example, primarily sought after deerskin. The hide of a doe was worth fifty cents, and the hide of a buck was worth about a dollar. This price resulted in the modern slang of “buck” being used for a dollar of currency (Eddins 2005).

Coyotes didn’t play a big role in this early fur trade because the vast majority of them were located west of the Mississippi River. By the early 1900’s, however, coyotes had moved eastward to cover much of the United States. The first coyotes, for example, were found in Ohio in 1919, and in New York in the 1920’s (Chambers 2005). Most biologists believe that coyotes extended their range eastward after wolves became extinct in the eastern part of the United States.
Appendix D: History of Candles

Candles have been used for centuries to shed light and help men and women extend working hours. Ancient Egyptians used torches made by soaking reeds in melted tallow, or animal fat, but these rushlights did not have wicks like candles (Cierra 2005). The Romans developed the wick candle, which helped them travel at night and light their homes and places of worship. These candles were still made from tallow gathered from cattle and sheep.

Beeswax was introduced in the Middle Ages and proved to be much superior to tallow for making candles. Beeswax burned much cleaner than tallow, which produced a smoky flame that smelled unpleasant. Still, tallow was widely used by most people of the time because beeswax was so expensive.

The whaling industry caused another major change in the candle making industry in the late 1700’s. Spermaceti, a wax acquired by crystallizing sperm whale oil, became widely available around this time. This substance had many qualities that made it favorable for candles, such as the fact that it was harder than beeswax or tallow and it did not soften or bend in the summer heat.

Paraffin wax, which was made from oil and coal shales, was another improvement in candles. This type of wax was obtained by distilling byproducts of refined petroleum. It burned clean and was cheap, although it had a rather low melting point. This problem was solved, however, by mixing paraffin wax with stearic acid.

Hand dipping was the method generally used to make candles by the pioneers of this country. They would melt beeswax or tallow in a pot over a fire and dip a wick into the molten wax or fat. They would then remove the wick, let it cool, and repeat the process until they had a candle. The average pioneer did not generally use candle molds because it took special skill to produce candles in this manner. On occasion, however, some pioneers did travel into a town and purchase these candles along with other supplies.
Appendix E: History of 18th Century Children’s Clothes

There were no styles just for children in the mid 1700’s, so children were dressed as miniature adults. (Alleman 2001). Young boys and girls dressed alike, wearing dresses similar to those worn by women. When boys were about three to five years old they were “breeched out” and started to wear miniature versions of their fathers’ breeches and shirts.

A typical outfit for a girl of this time might have consisted of a shift, shortgown, petticoat, apron, and cap. A shortgown was a loose fitting garment cut in a T shape that was slit down the front. It would have been pinned together in front, tied shut with a drawstring, or just held closed by the apron. A petticoat was an undergarment that covered the lower body, although they were often exposed in the late 18th century because they were worn with shortgowns (Felshin 2004). As a result they became more than just undergarments. Aprons tied in the back and covered from the waist down. The caps worn around this time were very similar to what is now considered a bonnet. These clothes would not necessarily have matched by today’s standards, as the women of this time freely mixed stripes, checks, and other colors. A shift was a woman’s underwear, similar to woman’s slip today.

An outfit worn by a boy of this time might have consisted of a shirt, breeches, and maybe even a waistcoat. The shirt probably would have been made with only squares and rectangles, and it would have used only small squares called gussets for fitting. It would have fallen to at least mid thigh, which would have given the boy wearing it plenty of room to grow. The breeches could have had a button fly and a drawstring similar to modern pajamas. The buttons could have been pewter, bone, antler, or fabric covered. The waistcoat would have been worn over the shirt, but under an overcoat. It could have come down to the waist, but most likely would have also come down to the mid thigh. It would have also had pewter, bone, antler, or fabric covered buttons.
Appendix F: Wooden Spoons Reflections

I started the process of making the wooden spoons by selecting the type of wood I wanted to use, and I chose ash because it is a hard wood and it was readily available. Ash also tends to have a straight grain and few knots, which are both favorable qualities for making spoons.

I then selected a whole section of a large limb of an ash tree and cut a section about ten inches long with a chainsaw. I set the piece on end and used an axe to split several sections of it into pieces about one half inch thick, which required precision with the axe or many tries. I lack the precision, so this step took quite a bit of trial and error. I ended up using several sections of the limb.

After splitting the wood I used a pencil to sketch the outline of several spoons, and I drew more spoons than I planned on making. I then chose the sketches that looked the best and used a band saw to cut them out.

Next, I used a stationary belt sander to shape the heads and handles of the spoons, which turned out to be the most time consuming portion of making the spoons. I sanded for a while and then stopped and checked my progress and continued sanding. I repeated the process several times until I got results that I found satisfactory, although the final products were not as symmetrical as I had hoped.

The last step was to carve the hollow portion in the head of the spoon, and I used a special carving tool for this job. This took a while, but it allowed me to make the concave portion of the spoons fairly even and smooth.
Appendix G: Mortar and Pestle Reflections

The first step in this process was also to choose the type of wood I wanted to use to make the mortar and pestle. I selected ash from the same tree I used for the wooden spoons, once again, because of its availability, straight grain with few knots, and hardness.

I then cut two chunks of wood with a chainsaw to use for the mortars, and I chose pieces that had a diameter of about ten to twelve inches. I cut the pieces so they would stand straight on flat ground. This proved to be more difficult than I expected, and I had to make several cuts to achieve this goal.

Next, I used the tip of the chainsaw to carve bowl shapes into the top of the chunks. I would not recommend this procedure, because using the tip of the chainsaw makes it hard to control and can lead to dangerous kickback. I carefully completed this job, however, taking several breaks to stay fresh and alert.

I then cut two limbs about three or four inches in diameter and about three feet long to use for pestles, and I individually placed one end of each of the limbs on a chunk of wood and carved handles into them with a hatchet. One handle was at the top of each pestle and the other handle was about six to eight inches down the shaft of the pestles. I also used the hatchet to make the grinding end of the pestles convex, and then I removed the bark from one of the pestles and used the stationary belt sander to smooth the handles and the grinding end.
Appendix H: Deer Skin and Coyote Fur Reflections

The first step for this project was to actually acquire the deer and the coyote. I purchased a hunting license and then shot the coyote with a twelve gauge slug gun while deer hunting. I used a deer that my brother shot with a fifty caliber muzzleloader.

Next, I skinned both of the animals. I used a case incision for the coyote, which means I cut the slits in the skin that started at the bottom of the hind legs and met at a spot just below the tail. I then used a knife to help separate the skin from the flesh. I made incisions in the tail and legs to help remove these parts. Other than this, I simply peeled the skin away from the flesh on the entire coyote.

The method I used to skin the deer was a little different from the one I used to skin the coyote. The first incision I made stretched the entire length of the underside of the animal. I then removed the entrails and hung the deer upside down. Next, I made incisions down all four legs and removed the legs from the knee down. I then separated the skin from the flesh on the entire deer except for the head, which I removed.

The next step was to remove any flesh or fat left on the skin of both the coyote and the deer, and to do this I held my hand under the hair side of the skins and used a knife or scissors to cut and scrape the flesh and fat off the skin. This proved to be the most tedious and time consuming part of the tanning process.

Next, I took the hair off the deer skin by soaking it in a solution of ten gallons of warm water and one pound of calcium hydroxide. I left the hide in the solution for about two days, stirring it with a long stick about every four to six hours. I then removed it from the solution and simply pulled the hair off the skin. I then rinsed the skin with clean
water and soaked it in a solution of ten gallons of water and eight ounces of ammonium sulfate to neutralize the skin.

I then rubbed salt on the flesh side of the skins and let it set on an incline for about twelve hours. After this, I washed the skins in clean water to remove the salt, dirt, and blood and started the pickling process.

Next, I mixed ten gallons of water, ten pounds of salt, and about two pounds of pickling crystals. I used pH paper to make sure the mixture had a pH of about 1.5-2.0, and then I placed the hides in this solution for about seventy-two hours. This was the longest part of the process, but it didn’t require very much work. At the end of the three days I rinsed the hides to prepare for the tanning process.

I then mixed ten gallons of water with five pounds of salt and ten ounces of Basyn Tan D-L-E, a product I purchased from Van Dyke Supply Company out of Woonsocket, South Dakota. I placed the skins in the solution, which I kept in a room temperature environment, and agitated them every two or three hours. The total time the skins were in this solution was about twenty-four hours.

I then removed the skins from the tanning solution and let them drain for about twenty minutes. After this, I liberally applied a special oil purchased from Van Dykes Supply Company to the skins and folded them flesh to flesh. I left them in this position for about five hours and then laid them out to dry.

As the skins dried I rubbed them on the corner of a table to keep them limber and soft, a process called breaking the skins. If this step is skipped, the skins will become stiff and unsuitable for many uses.
Appendix I: Hand-Dipped Candles Reflections

I started the process of making hand dipped candles by gathering the supplies for the job. I purchased beeswax and wicks from Jas. Townsend & Sons, Inc. out of Pierceton, Indiana. I then obtained an old spray paint can and removed the top with a can opener.

The next step in the process was to cut the beeswax into smaller pieces so they would fit into the can and melt easier. This proved to be more difficult than expected. The wax was tough to cut and didn’t clean off the knife very easily.

I then made a fire and used rocks on two sides of it to hold a grate over the fire. I placed several chunks of the beeswax in the can and put it on the grate and waited. It took much longer for the beeswax to melt than I guessed it would, so it was almost dark before I was able to start dipping the candles.

As the wax was melting I cut wicks of several different lengths to dip in the wax. One wick was shorter, which I used to make a small candle that would have been used to light other candles. The other two wicks were long enough I could use the whole depth of the can to make the candles as long as possible. I then tied the wicks to sticks and waited for the wax to melt.

When the wax was finally melted I started dipping the wicks in the can one at a time. After I pulled them out of the molten wax I straightened them before the wax completely hardened. I found that leaving the candles in the melted wax too long simply melted the wax that had already hardened on the wick. I also found that the wax fell to the bottom of the candles after they were removed from the can, causing the bottoms to
be much larger than the tops. I tried to shift the proportions of the candles with my fingers, but they still ended up with very noticeable tapers. This, however, wasn't a big problem because the hand-dipped candles of the 18th century often had similar tapers.
Appendix J: 18th Century Children’s Clothes Reflections

The first step in this long process was to purchase the patterns from Jas.
Townsend & Sons, Inc. I drove to Pierceton and looked at several patterns before choosing mid 18th century patterns for both boys and girls produced by a company called Sew In The Past out of Windsor, Vermont. The boy’s patterns included a shirt, breeches, and waistcoat, and the girl’s pattern included a shift, cap, shortgown, petticoat, and apron.

The next step was to purchase fabric and thread for the clothes, and I looked at a few different fabric stores before purchasing the materials at Joanne Fabrics in Muncie, Indiana. I chose cream colored linen for the boy’s breeches and green striped linen for the waistcoat. For the boy’s shirt and the girl’s apron I chose unbleached muslin, which is also a cream color. I picked a blue calico fabric for the girl’s shortgown, petticoat, and apron.

The next step in the process was to cut out the patterns for the clothes. This job was not very difficult, and it did not take a lot of time. I simply cut along the lines on the paper patterns, although I did have to make sure that I cut along the correct lines because the patterns had lines for small, medium, and large sizes. I used the small sizes because they are the most appropriate for primary elementary students. I then pinned these patterns to the appropriate type of cloth and cut out the shapes. This was more difficult than I expected because the fabric would bunch if I was not careful and it was tough to cut right along the lines.

The next step was to sew the pieces together to make the articles of clothing. This was the most difficult part of the project for me because I have very little experience
sewing. My sister, Katy Knox, helped me a great deal with this step of the process. I used her sewing machine and she was there to help and guide me the entire time. The clothes would not have turned out nearly as well as they did if it were not for her help. I used the sewing machine to make straight stitches for all of the stitching except for the buttons, collar, and cuffs on the boy’s shirt, and I used hand stitches for these pieces.

I made the buttons for the boy’s breeches and waistcoat from deer antlers. I cut the antlers into discs about three sixteenths of an inch thick with a band saw and then sanded the discs with sand paper until they were smooth. I then used a drill press to make the holes in the buttons.

After the sewing was finished I washed the clothes to make sure all of the stitching would hold. It all turned out well, once again, in large part to the help of Katy Knox. I then had her children, Autumn and Cole, try on the clothes, and they made wonderful models and looked very good in the clothes.
References


Andrian, Barrie. (2002). Scottish crannogs. BBC History Trail


Chambers, Robert. (2005). The coyote in New York state. SUNY College of Environmental Science and Forestry


1. Matt fells the Ash tree to be used for the spoons and mortar and pestles.
2. Matt begins to cut the Ash tree into pieces to be used for the spoons and mortar and pestles.
3. Matt splits wood for the spoons.
4. sketches of the wooden spoons
5. Matt cuts a wooden spoon with a band saw.
6. Matt shapes the spoon with a belt sander.
7. Matt carves the depression in a spoon.
8. depressions in spoons
9. wooden spoon final products
10. Matt carves the mortar with a chainsaw.
11. Matt shapes the pestle with a hatchet.
12. Matt smooths the pestle with a belt sander.
13. mortar and pestle final products
14. mortar and pestle final products
15. Matt with the freshly killed coyote.
16. Matt and brother David skin the deer.
17. Matt skins the coyote.
18. Matt removes flesh from the deer hide.
19. Matt stirs the deer and coyote hides in chemicals.
20. Matt rubs oil on the tanned deerskin.
22. Matt breaks the deerskin.
23. Matt splits wood for the fire to melt the wax used to dip candles.
24. Matt dips a wick in molten beeswax.
25. hand-dipped candles final products
27. boy’s clothes patterns
28. girl’s clothes patterns
29. Matt cuts the fabric for the girls’ cap.
30. Matt sews the petticoat with guidance from sister Katy.
31. Matt sews the shortgown.
32. Matt cuts the antler to be used for buttons.
33. Matt sews a button to the breeches.
34. Autumn and Cole model the 18th century clothing.
35. final products of clothing, candles, mortar and pestles, spoons, and animal skins
36. Matt stands with the artifacts.