Cades Cove Outline

Big Idea

People lived in the Smokies before the park was formed and interacted with their environment in ways that can help us reflect on how we live today and what choices we'll make for our future.

Essential Questions

- What attitudes and lifestyles held by people in the past hold valuable lessons for us today?
- What can we learn about past ways of life by observing evidence left behind?
- What is the importance of preserving not only the natural history but also the cultural history of the Smokies?

Vocabulary

Geology

- Carbonic acid (H_2CO_3)—the acid formed when rainwater (H_2O) reacts with the mineral calcite ($CaCO_3$) in limestone, which can dissolve the rock to form caves and sinkholes
- Erosion—the wearing away of the land surface either due to water, ice, wind, etc.
- Geologic window, or fenster—exposed rock that underlie an erosional break in an overthrust rock sheet
- Limestone—a sedimentary rock composed mainly from the mineral calcite, which is deposited on the ocean floor from marine organisms
- Sinkhole—a depression in the land caused by the dissolution of the limestone bedrock beneath
- Thrust fault—a break in the earth's crust where one side is pushed up and over another due to compression

Settlers

- Chinking—mud and/or wood and other materials placed in the chinks (cracks) between logs to insulate the house from cold weather
- Cistern—a tank or receptacle used for catching and storing rainwater
- Community—a group of people living in the same area and sharing customs
- Cove—a flat valley between several mountains.
- Self-sufficiency—relying on one's own resources and powers to supply one's needs without external assistance
- Smokehouse—building where meat was smoked for curing
- Springhouse—small building over the spring that stores milk, cream and butter, and

protects the water supply

- Sustainability—a way of living that benefits both humans and the other 10-20 million species on the planet, preserving both the diversity of life and human productivity

Lesson Outline

- Introduction
- Sinkholes
- Gregorys Cave
- Gregory Farm
- Walk to Primitive Baptist Church
- Cemetery Study
- Primitive Baptist Church
- Walk Across the Cove and Activities
- Elijah Oliver or Dan Lawson Homeplace and Photo Find
- Conclusion: Needs vs. Wants

Optional Activities

- Cable Mill Photo Find
- Cades Cove Childhood

Teacher's Note: The Cades Cove lesson is designed to have a great deal of flexibility. The lesson may be completed as written or altered to meet the specific needs of your group. Emphasis may be placed on either cultural or natural history or a combination. Various hiking options may also be incorporated. When planning for a Cades Cove experience, first become familiar with the program as written. Second, discuss the possible options with Tremont staff before finalizing the schedule.

The Cades Cove lesson plan is not just a variety of activities strung together, but was written with a specific theme that is recalled throughout the lesson. The Cove area is a valuable resource that allows students to look into the past and learn how it relates to humans and human attitudes toward the environment. Everything in the lesson ties in to this idea, and this concept should be kept in mind when teaching at Cades Cove.

Good behavior should be emphasized to the students. The Cades Cove area is open to tourists year-round and, in spite of Tremont's park affiliation, Tremont has no special privileges. Please ask students to be considerate of other visitors.

The background information about Cades Cove at the end of this lesson provides a good overview of its formation, composition, cultural history, and present use. This information is for your use at whatever time you feel appropriate. It is useful to present in the classroom prior to your visit, or may be used to prepare your teachers for leading the lesson.

Cades Cove Activities

CADES COVE

7 Hours

INTRODUCTION

10 Minutes

Lead In

Either in the Activity Center or in the bus during the ride, give students a brief overview of the day. They'll be looking back into time, and the most important skills they need to exercise today are observation and imagination.

Procedures

At the appropriate time and location, tell students that a cove in the Appalachian Mountains means a flat valley surrounded by mountains. Cades Cove is a unique place in the Smokies because of its geology and its cultural history. Receiving over two million visitors annually, it is the most popular destination in the park. In fact, as a tiny piece of this national park, it is more popular than entire national parks elsewhere in the country.

European descendents continually lived in the Cove from 1818 until the park came into being in the 1930s, but even then some families continued to live in the Cove up until the 1990s. Tell students that today we are going to investigate the way these people lived and related to their environment.

Instruct students to look out the right-hand side of the bus windows when the bus gets close to the Oliver cabin. John and Lurena were the first white settlers to arrive in the Cove in 1818. They nearly starved to death their first winter because starting a farm was difficult work and they didn't get enough crops in the ground in time for winter. They survived thanks to friendly Cherokees who fed them dried pumpkin, which kept them alive. John was a veteran of the War of 1812 and, ironically, belonged to forces led by Andrew Jackson years later that removed the Cherokee from their ancestral home in the Smokies.

Tell the students that later on they'll get to visit the gravesite of John and Lurena Oliver at the Primitive Baptist Church.

Wrap Up

Explain that the origin of the name "Cades Cove" is ultimately a mystery. It may derive from the name of the wife of a Cherokee chief who once lived here, but no one is really sure. However, many mysteries remain tucked away in Cades Cove that we can unravel. It will take observation, imagination, and critical thinking skills on everyone's part to do this.

Cades Cove Activities

SINKHOLES

15 Minutes

(Vocabulary: thrust fault, fenster, geologic window, limestone, carbonic acid, erosion, sinkhole)

Lead In

Lead the students to the sinkholes. Advise them not to stand too close to the edge. Ask them what a scientist is called who studies the earth and rock formations. (geologist)

Procedures

Tell students that as geologists their job is to figure out what it is they are standing in front of. (sinkhole)

Ask them how a sinkhole is formed. (CO_2 mixes with rainwater to form carbonic acid, which dissolves limestone rock.) Carbonic acid forms when water (H_2O) reacts with the mineral calcite ($CaCO_3$) in limestone, which dissolves the rock to form caves and sinkholes. As water carries the dissolved limestone away, a cave develops. A sinkhole is basically a cave close to the surface with a collapsed ceiling.

Ask where they think the dissolved limestone goes. (Underground water washes it away.) Emphasize that the rock being dissolved was underground in the first place.

Ask how they think the limestone gets here. (Limestone in this region was derived from marine organisms.) Have students give examples of these. Point out that if there was marine life there had to have been a sea.

The geology of Cades Cove is complicated due to the fact that older rock is on top of younger rock. Some kinds of faults slide up past one another; others push into each other, such as in the Himalayas. Cades Cove was formed because of a thrust fault where the continental shelf was literally thrown up on top of the other continental shelf. Over time part of the mountains eroded away. Cades Cove is a type of valley known as a "geologic window," or fenster, created by erosion that removed the older Precambrian sandstone, exposing the younger Paleozoic limestone beneath.

Wrap Up

Tell the students to look for more sinkholes as they follow you to the next stop. Ask them what signs would be present that a sinkhole is still forming. (cracks along the edge, bare dirt instead of leaf-covered surface)

GREGORYS CAVE

30 Minutes

Lead In

Ask students what they think it is they're standing in front of. Do they

think the limestone cave was formed the same way sinkholes are? (yes) The difference is that this cave is far deeper below surface and therefore its roof has not collapsed.

Procedures

Tell the students the cave has found many uses over the centuries by both humans and animals. Walk them through a rough timeline starting long ago up through the present day.

- Pre-10,000 B.C.—What animals took advantage of this space, and why, before humans inhabited the area? (Bats, frogs, salamanders, and other animals like such cool, moist environments. A hibernating bear might prefer the temperatures that fluctuate very little between 53-55 degrees.)
- Post-10,000 B.C.—Who were the first humans to use the cave, and what would they have used it for? (Archeologists have found evidence that Native Americans once found shelter here and used this spot to make arrowheads and spear tips.)
- 1820s—During the period when white settlers moved into Cades Cove, a farmer named Joe Gregory owned the cave. What would his family have used it for? (Refrigeration before electricity was invented.) They also used it as a tourist attraction to help produce income.
- 1850s—In the years before the Civil War when slavery was still legal, what role might a cave have played? (Calvin Post, a doctor, was believed to have set up an Underground Railroad stop in the Cove during the years before the Civil War. Whether he used the cave is unknown.)
- 1860s—In the years during the Civil War, what role might a cave have played? (Times were tough for Cove residents during this period, because they strongly opposed slavery and favored the Union, and Confederate scouts sometimes made raids into the Cove. The cave would have been a good place for parents to hide a young man who they did not want to be conscripted into the Confederate Army.)
- Late 1800s/early 1900s—Young people were known to use the first big room in the cave as a meeting place for music and dance parties. In such close quarters, the sounds of a fiddle and banjo reverberated nicely off the cave walls.
- 1940s-1990s—During the Cold War, Gregorys Cave was designated as a fallout shelter, with an assigned capacity of 1,000 people. It was stocked with food, water, and other emergency supplies.
- Present Day—Why has the park closed the cave off to human

use? (Because it is prime habitat for the Indiana bat, an endangered species) Animals such as red wolves and bison that once thrived in the Cove became extirpated by settlers (made extinct within a given region). Some extirpated animals have since been reintroduced to the park. Which ones? (Elk, otter, smoky madtom) The Cherokee once referred to the Cove as the "place of the otter." With the same conservation vision in mind, there is hope that the Indiana bat's declining numbers will once again rise.

Wrap Up

For logistical reasons related to keeping kids' attention, it's easiest to visit the cave entrance at the end of this activity.

GREGORY FARM

15 Minutes

Lead In

Lead the entire group to the picnic tables where the old Gregory Farmstead once stood. Tell them that this is the spot Joe Gregory settled in the 1800s. Many places such as this still exist in the park since 700 people once populated Cades Cove.

Procedures

Ask students what four things every living being needs for survival. (water, food, shelter, space.) Tell them with this in mind to travel back in time in their imaginations to the year 1850, before many modern technologies existed. Pass out Gregory Homestead worksheet and then ask them:

- Now that you have space (farmland), how and where will you get water, food, and shelter?
- What tools would you have traveled with? Which ones might you have had to make by hand after you arrived?
- What is the first thing you need to do with your land in order to survive?
- What do you think a typical day would be like for males and females? Would gender make a difference in one's responsibilities? Would age?
- What kind of food would have been eaten? Would meals change by the season?

Ask students what evidence they can spot from where they're sitting that reveals that someone once lived here. (flat land on a knoll, yucca, concrete cistern, walnut/apple trees, cedar "chicken" tree)

Wrap Up

Point out that the dimensions of the house can be determined by

looking closely at the small grass-covered hump near the road. The concrete block near the dirt road was a cistern that collected water from the gutters on the right-hand corner of the house. The yucca plants were planted for decoration and fiber; the walnut/apple tree provided fresh nuts and fruit; and the cedar tree housed the family's chickens and was called the "chicken tree." North of the picnic tables, toward the cave, stood Joe's fields.

Although farmers such as the Gregorys were self-sufficient, building their home, growing their food, and making their clothes, belonging to something larger than the family unit was very important to them. It's this aspect of the pioneer lifestyle we're going to explore next.

30 MINS

WALK TO PRIMITIVE BAPTIST CHURCH

30 Minutes

Lead In

Ask the students what fifth item we might say every living thing needs. (membership in a community) Many Cades Cove residents lived quite some distance from one another, yet they set aside time every week for gathering together with neighbors. Religion formed the basis for group identity. Ask students what place therefore would have served as the central meeting place for the community. (church building)

Procedures

The hike to the Primitive Baptist Church passes across the field opposite the farm road. Once you've reached the field cut diagonally toward the woods. Cross the barbed wire fence. If you head straight you'll intersect the side-road leading from the loop road to the church. You may do either this and follow the road to the church, or turn left before reaching it and walk parallel to it through the woods.

At this point you may ask the students to use their imagination and go back in time. Have them imagine it is Sunday and there is a potluck after church.

Wrap Up

While walking, encourage the students to "read" the land they're walking on. Did it look much the same one hundred years ago? (yes) Ask them what would this field look like if it were not kept mown and grazed?

30 MINS

CEMETERY STUDY

30 Minutes

Lead In

Upon arriving at the Primitive Baptist Church, gather the students at the entrance to the cemetery. Explain that they are to answer questions on a work sheet you will give them in a moment. Answers can be dis-

covered by looking at headstones in the cemetery as well as by viewing the stone inscription near the entrance. Students should walk only on established paths and should take care not to step on the graves.

Procedures

Divide the students into groups of two or three. Give each student a worksheet as they enter the cemetery.

Wrap Up

You may go over the worksheet inside or outside the church building (see NOTE below). Either way, use answers that students offer up as a springboard for interpreting the cultural history of Cades Cove residents and how it relates to the Primitive Baptist Church. No matter the location, make sure to weave information appearing in the following section into the discussion.

NOTE: If a park docent is not interpreting inside the church, your best option is to seat students inside the church and then go over the answers. If a park docent is interpreting inside the church, you may want to go over answers either at the edge of the woodsy area adjacent to the church building, or later during lunch.

PRIMITIVE BAPTIST CHURCH

25 Minutes

NOTE: If a park docent is interpreting inside the church, explain to the docent that your group of students would love to hear their presentation. Be explicit from the start regarding how much time you have before your group needs to leave.

Lead In

Girls should line up on the left and boys on the right before entering the church building. Ask students to be respectful and to remove their hats, and to be considerate of other park visitors.

Procedures

Provide the following background into the history of the Primitive Baptist Church. The church was the keystone of the community. The Primitive Baptist Church was organized in 1827. John Oliver founded it, some said to account for his past sins. It is the oldest established church in Cades Cove. Until 1887, members met in a log building, which burned down. Meetings were held on Saturday nights and Sunday mornings. Songs were sung a cappella (without instrumental accompaniement) in the Shape Note style. This and the sparse decorations reflected that simplicity led to a pure heart.

As well, point out the following architectural features and background facts:

- Pews—Members sat in the perpendicular pews in front. Non-members sat in the main pews.
- Sinner's Bench—Also known as the mourner's bench, situated in front. Families of the deceased would receive visitors here, and during services individuals who'd sinned would sit here.
- Ceiling—Made of white pine, it bears the fingerprints and bare footprints of men who erected/constructed the building in 1887. When it's green, white pine is easily stained by human skin oils. Some say that a bear walked over the boards as they were lying on the ground the night before they were nailed up.
- Hooks—Lanterns hung from these during Saturday evening services.
- Belfry—Look for the square hole in the rear corner where a ladder once climbed up to the belfry.
- Stove—Look for the replaced square on the upper wall in front where a stove pipe once exited the building. Later a pot-bellied stove was placed in the center aisle indicated today by the metal plate on the floor and the exit port in the ceiling.
- Burials—When someone in Cades Cove died, a member of the family or a neighbor would go to the church where the interment would occur and ring the church bell. After several minutes of ringing and a short pause, the bell would toll the age of the deceased. The men, especially those who lived near the church, would go from wherever they were working to the cemetery and start to open the grave. In wintertime, a fire was first built to thaw the ground. Depending on the sex of the deceased, a neighbor man or woman would go to the home and properly lay out the body, which had to be done before rigor mortis set in. After the funeral, field work or other activities would return to normal. At most, only a couple of days of work were lost. If circumstances warranted, the bereaved family would be helped in any way needed. During epidemics, which took many lives in a short period of time, practically no work was accomplished other than digging graves and making coffins. (Adapted from The Cades Cove Story by former Tremont director Randolph Shields.)
- Russell Gregory—Founder of Gregory Bald. When Unionists in Cades Cove learned that the Rebels were about to raid the Cove, they cut trees down across the escape path they knew the Rebels would use. When the Rebels passed through, carrying belongings they'd plundered off other Union loyalists, the "home guard" of

Cades Cove opened fire under the direction of Russell Gregory and wounded two of them. The Rebels abandoned their plunder and ran, never again raiding during the day. Two weeks after the ambush, however, they returned at night and killed Gregory in his house. Some say it was his son, who'd joined the Confederacy, who recognized the sound of his father's gun and told his fellow Rebels, not knowing they would kill him.

Wrap Up

Life was not easy living without the modern conveniences we take for granted today. Days were long and hard. Work felt endless. Yet consider this: if life was so much harder back then, why do ex-residents of the Cove speak so fondly about the lives they lived while here? By the same token, why is visiting this place such a popular thing to do, and why do so many people express a wish for living more simply? Perhaps a few explanations for this will arise once we, too, experience closer contact with nature and some time doing "nothing" during our hike across the Cove and the Solo Sit.

(Break for Lunch)

1-2 HRS

WALK ACROSS THE COVE AND ACTIVITIES

1-2 Hours

Teacher's Note: Walking across the Cove is a relaxing and non-strenuous activity that lies at the heart of this lesson. Simply put, there's no better way for students to feel immersed in this unique place and to glimpse the mountains that surround them on every side. It is here also that one understands why residents did not want to give up their homes when the park was created in the 1930s. If a gate is opened it should be closed once the group has passed through since some fields are used to graze horses. Be aware that sometimes horses are in the same field as the students. The fields are enormous in size and there is plenty of room for both.

Lead In

Provide time for the students to empty their bladders in the woods before beginning the second half of the day. No restroom facilities exist here, nor will they for the rest of the day including at the Abrams Falls parking lot where the bus will be parked.

Tell the students that walking across the Cove is a unique opportunity not only to view wildlife but also to see just where exactly they are in the mountains. Ask the students what kinds of wildlife and signs of wildlife to look out for (deer, groundhog, vultures, wild turkey, rabbits, squirrels, etc.) Use this time before you begin the walk to explain how

the Solo Walk works.

You may also choose to ask the students to once more use their imaginations by pretending they have an errand to run for Joe Gregory. Joe, you might say, wants to build a new springhouse and wants to see how Elijah Oliver built his.

Procedures

Encourage the students to walk as quietly as possible in order to better observe their surroundings. You might occasionally stop and ask them questions along the way such as:

- What types of crops did farmers raise here? (corn, wheat, hay, etc.)
- What kind of animals did they keep? (cattle, hogs, horses, chickens)
- Where did they get their water? (springs and creeks) Can you spot any sources?
- Where might they have built their cabins? (usually set against the foot of the mountains rather than on the best land)

For a time you might also hike quietly to set the tone for the silent Solo Sit that comes next.

- Solo Sit—When you reach the Solo Sit area (located beyond the knoll on the far side of Hyatt Lane), signal silently for students to spread out and sit down. The Solo Sit is the highlight of the day for many people and setting the proper tone in advance will ensure its success.
- Backwards Walk and Sightless Walk—Take advantage of this unique opportunity to have the students do something they've likely never done before. The large flat fields beyond the solo walk area and across the first fence you come to provide excellent opportunities for sensory activities such as the Backwards Walk and Sightless Walk. Have them first walk backwards for as long as they can. Once they've tried this, have them walk forwards with their eyes closed for as long as they can.
- In each instance, tell the students to spread out so they don't run into anybody. The only other thing they could possibly run into is a single tree in the middle of the huge meadow. Holes are rarely a problem. Tell the students to walk slowly.

Wrap Up

A good place for a break is when you reach the loop road. Ask students what the primary means of travel was for Cades Cove residents (walking). Ask them what is the primary means for half of the world's population today? (walking) Tell the students they'll be walking a half-mile to visit the Elijah Oliver farm.

Cades Cove Activities

ELIJAH OLIVER HOMEPLACE AND PHOTO FIND

30 Minutes

Lead In

Upon arrival at the farm, gather the students on the grassy area under the chicken tree. Provide a little background before beginning the Photo Find in order to set the context: Elijah Oliver was the son of John and Lurena Oliver. He lived from 1829 to 1905. He started construction of this farm in 1866. His original farm was destroyed during the Civil War by Confederate raiders. The cabin on the right was moved here from another location. After John's death, Lurena Oliver lived here in the small room on the left. After her death it was occupied intermittently by visiting preachers and teachers.

Tell the students that the Photo Find is a scavenger hunt designed to help them explore the Elijah Oliver Homeplace and focus their attention on past and present attitudes toward the environment. Students may work in pairs. Remind them to show respect to the historic structures as well as other visitors who want to enjoy them.

Procedures

Instruct the students to search for the object pictured in the photographs and to answer questions written on the back. Inform the students where they can find new photos when they want to exchange an old one for a new one. Instruct some adults to wander the Elijah Oliver area to help students if needed, as well as to supervise. Other adults can exchange photos with students and help them with the questions.

Wrap Up

Gather the students together, and review the information and what the students learned from the Photo Find. Ask several pairs of students to share their Photo Find pictures and their answers to the questions. (For answers, see Elijah Oliver Scavenger Hunt Answers.)

The Cades Cove lesson should conclude with a discussion that looks beyond mere facts and explores our relationship as humans with our environment. The Needs vs. Wants activity below can easily be woven in to the end of the Photo Find discussion.

DAN LAWSON HOMEPLACE AND PHOTO FIND

30 Minutes

Teacher's Note: Dan Lawson Homeplace can be substuted for Elijah Oliver Homeplace. It is a shorter walk along Hyatt Lane to Dan Lawson Homeplace than to walk to Elijah Oliver Homeplace.

Lead In

Upon arrival at the farm, gather the students on the grassy area in front of the Dan Lawson cabin. Provide a little background before begin-

ning the Photo Find in order to set the context: Dan Lawson was born in 1827. He married Mary Jane Cable in 1850 and built the cabin around 1856 on land he bought from his father-in-law. They had seven children, two of whom died young. Dan Lawson operated a post office from his porch. He and three other Cades Cove citizens financed a telephone line into the Cove in 1896.

Tell the students that the Photo Find is a scavenger hunt designed to help them explore the Dan Lawson Homeplace and focus their attention on past and present attitudes toward the environment. Students may work in pairs. Remind them to show respect to the historic structures as well as other visitors who want to enjoy them.

Procedures

Instruct the students to search for the object pictured in the photographs and to answer questions written on the back. Inform the students where they can find new photos when they want to exchange an old one for a new one. Instruct some adults to wander the Dan Lawson area to help students if needed, as well as to supervise. Other adults can exchange photos with students and help them with the questions.

Wrap Up

Gather the students together, and review the information and what the students learned from the Photo Find. Ask several pairs of students to share their Photo Find pictures and their answers to the questions. (For answers, see Dan Lawson Scavenger Hunt Answers.)

The Cades Cove lesson should conclude with a discussion that looks beyond mere facts and explores our relationship as humans with our environment. The Needs vs. Wants activity below can easily be woven in to the end of the Photo Find discussion.

CONCLUSION: NEEDS vs. WANTS

15 Minutes

Lead In

Ask the students to create two lists in their minds (or on paper). One list for NEEDS—things they've always believed "I can't live without." Another for WANTS—things they believe "I really like but realize I could live without." Before asking for examples, review the four things every living thing needs for survival (food, water, shelter, space).

Procedures

Ask the students if visiting the historical sites today made them rethink any items on their NEEDS and WANTS lists. Ask them to offer examples of things they realize they may have previously thought they could not live without but now realize they could. (computers, cars, refrigerators, video games, television, Coca-Cola, cell phones, etc.) Point out that not only did Cades Cove residents live without these items, but

also that half of the world still lives without these things today (surviving on $2/day).

Remind the students that there are consequences to us wanting so many things and overusing our resources. For instance, if the entire world lived at the same standard of living as the U.S. and other developed countries do, we would need three planet Earths. Why is this the case? One reason might be tied to the fact that the U.S. uses 25% of the world's energy but has only 5% the world's population.

Next ask what Elijah Oliver would do if he owned a shoe and the sole fell off (mend it) What would most of us do if the same thing happened to us? (throw it away) Unfortunately, we live in what some call a "throw-away" society.

Tell the students that the life of the people in Cades Cove can best be described by an old saying: "Use it up, wear it out, make it do, or do without." Ask the students what this means. Do most people follow this advice today? Are there other countries where people live this way? How will people 75 years from now look at our use and misuse of the earth?

Ask the students to offer solutions to these problems. Introduce the ideas of sustainability and self-sufficiency, and the 3 R's: reduce, reuse, recycle.

Wrap Up

Ask the students why so many people, including perhaps us, confuse our NEEDS and our WANTS. Ask them if they've ever seen a TV commercial or magazine ad whose message is, "If you don't buy me, you won't be happy." Or, "If you don't dress and look like this, you won't be cool." Ask the students if they really believe this. If not, then why do so many of us fall for it?

Ask them what they think we need to be truly happy. Relate to them the findings in a study carried out by psychologists, as reported by a parent chaperone who once visited the schoolhouse/homestead on this very program: On average, young people who try to own all the latest toys and wear all the latest fashions were discovered to be "least happy." Yet older people who lived through the Great Depression were discovered to be most happy. Ask the students why they think this is the case. Perhaps one reason is that older people who once had so few things discovered what really mattered and learned to value what little they had. (house, enough food to eat, friends, family)

Ask the students what makes them truly happy.

OPTIONAL ACTIVITIES

CABLE MILL PHOTO FIND

1 Hour

Lead In

The walk from the Abrams Creek parking lot to Cable Mill area is fifteen minutes.

Gather the students together for a short large group introduction to Cable Mill area. (Leaders may want to become familiar with the background information on the Cable Mill area in the Resources section of this lesson before leading this introduction.) Give just a brief overview since the students' discoveries will hopefully create an interest in learning more about the buildings in the wrap up.

Explain to the students that the next activity, a Photo Find scavenger hunt, is designed to help them look more closely at the Cable Mill area.

Teacher's Note: The photos and accompanying questions again focus the students' attention upon humans' past and present uses of and attitude toward the environment. This activity encourages students to get a closer look at the construction and uses of the buildings. Remind the students that there are other people here and that they should be on their best behavior. They should think of themselves as representatives of their school and Tremont.

Procedures

Students will pair up and search for the object in a close-up photograph taken at the Cable Mill area. A meeting place and time limit should be established before sending students out.

Upon finding the object in the photo, students will answer questions written on the back of the photo relating to the photo and peoples' lives in the Cove. They may need help in answering some of the questions.

Adults should wander the Cable Mill area to help the small groups of students if needed, as well as to keep students supervised. Try to avoid giving the answers, but stimulate thought by asking appropriate questions.

When the students complete their task for one photo, you may issue another if time permits.

Two adults should form the "command center" in the sorghum press field, where students go to pick up pictures and to deliver answers from the ones they have already found.

Wrap Up

Gather the students together, and use the Cades Cove/Cable Mill background information and what the students have learned from the Photo Find to explain what the various buildings were used for. Ask several pairs of students to share their Photo Find pictures and their

answers to the questions.

CADES COVE CHILDHOOD

20 Minutes

Lead In

Gather the students in a place where they can sit in a circle and not be distracted. Tell them to imagine they live in Cades Cove in the early 1900s.

Procedures

Tell the students to close their eyes while you read to them what a day would be like for a child in Cades Cove a long time ago.

> The first faint glow of a new day shines across the dark plowed fields to the east of the house. Sitting up in bed, you yawn, stretch, and try to rub the sleep from your eyes. The cold night air in the sleeping loft makes it hard to leave the warmth of your bed. The younger children are still fast asleep in the bed beside you. With a deep breath and a quick jerk, it's off with the covers; you take two steps across the room and jump into your clothes. You leave your shoes in their place next to the wall. They won't be needed today since you will be working in the fields.
>
> First things first: it's time for morning chores. After climbing down the ladder to the big room, you stir up the ashes in the fireplace and add some new kindling. The warmth of the fire helps to cut the damp chill of this spring morning. In the kitchen, you light a fire in the cookstove so that your mother can start getting breakfast ready.
>
> Then you go out the door, across the porch, down the steps and off to the barn. As you walk to the barn, you think about how the whole farm is waking up. The roosters are crowing, and chickens and geese are stretching their necks and spreading their wings in the early morning sun. At the barn, cows, horses, pigs, and sheep are all moving around in their pens. The sun has peeked over the mountains now, and the valley warms and glows in the spring sunshine. The dew on the grass sparkles like millions of tiny jewels.
>
> The old door creaks on its wooden hinges as you enter the barn. After closing the door, you take down a pail and stool and begin milking. One of your cats, the big yellow one, comes begging, so you take careful aim and squirt milk right in old Tom's face. You laugh as the cat runs off

in surprise to lick the milk from its fur. With the milking done, you lead the cow out to the pasture so she can feed on the tender young green grass.

On your way to the house, you see your sister gathering fresh eggs from where the hens roosted last night. You leave the pail of milk at the springhouse to cool. Later, your mother will churn the cream into butter.

All the reasons that make spring your favorite season start to flood your thinking as you return to the porch. Spring to you is warming days, the smell of newly plowed earth, and blooming wildflowers: buttercups, spring beauty, dogwood and redbuds. Most of all it is the baby animals that make spring so special. Some of the ewes have already had lambs. It's been a good year; most have had twins and none have died. Your favorite is the black one with the drooping ears that's just beginning to run around.

Some of the geese are sitting on their nests. Father says there will be a new calf or two. The little piglets always make you laugh as you and your brothers chase them around the barnyard. The old sow scares you sometimes; she can be awful mean when she's looking after her little ones.

This morning, Mother has fixed fried eggs, cornbread with sorghum and sweet butter, fried apples, and ham. After you gulp down the last of your milk and Father has finished his coffee, the two of you head back to the barn to harness the oxen for another day of plowing. You're big enough now to help your father work the team. It won't be long until you will be able to drive the big black and white oxen all by yourself.

In the field your father walks behind the plow, guiding it and holding the reins. Your job is to help lead the oxen from the front. The rough lumpy ground begins to turn to long dark furrows. Everything is going fine until suddenly the oxen stop with a jerk. You look back and see that the plow has hit a big rock buried in the field. The iron point of the plow is all bent and broken. Your father will have to take it to his blacksmith shop to fix it. That means no more plowing for today.

While Father takes the oxen back to the barn, you take the broken plow point to the forge and start up a fire in the forge. Soon your father will be heating the bent piece of metal to bright cherry red. The sound of the big heavy hammer pounding the metal back into shape will ring

across the whole valley.

In the meantime, you run back to the house and grab a big piece of leftover cornbread to eat for lunch. A big drink of spring water washes the cornbread down as you grab your cane pole and can of worms. Off to the creek you run as fast as you can go, hoping no one will stop you with more chores to do. Now the rest of the afternoon is yours to poke the cane pole into your favorite fishing holes in hopes of catching mountain trout, bass, or bluegill. Even if you don't catch anything, you'll be happy just to lay in the grass and dream, feel the warm sun, and make out shapes of animals and things in the big white fluffy clouds as they float by.

—Matt Miller

Wrap Up

Ask students if they think they would have enjoyed being a child in Cades Cove. What appealed to them? What wouldn't they have liked? If time permits, encourage them to write a letter to a friend as if they were living in Cades Cove. This can be done in their notebook or there is a sample that can be photocopied in the Resources section of this lesson.

CADES COVE BACKGROUND

CADES COVE/GEOLOGIC HISTORY

The story of Cades Cove cannot be told without a look far back into the geologic past. From the way rocks are forming today, geologists believe that this is what happened back when the rocks were formed. The geology of the Smokies dates back hundreds of millions of years to a time before life existed on the planet. Over 500 million years ago, the spot on which you stand was beneath a shallow sea. Mud and sand were eroding off of a now long forgotten mountain range to the southeast. This mountain range no longer exists, its only evidence is in the rocks here. Sandstone and phyllite, the rocks of the nearby mountains, are sedimentary in origin. The rocks which make up the Cove's floor are limestone, created much later in history from the bodies of dead microscopic sealife. In a great series of thrust fault earthquakes along the Great Smoky Fault, the mountains around the Cove were thrust up and on top of the younger limestone floor. Over time the softer phyllite was eroded away, again exposing the younger limestone. Geologists call this a fenster or geologic window.

Over millions of years, erosion and subsequent deposition has created a deep and fertile soil here in the Cove. This action allowed Cades Cove to become a very prosperous farming community deep in the Smokies.

CADES COVE/CULTURAL HISTORY

The Past

What about the people? The Cove was used by native Americans for a long time as a meeting, trading, and hunting ground. When the first white settlers arrived in about 1818, the land was still considered native American property. In 1821, a treaty was drawn up allowing the whites to settle in the Cove. During its history of the white settlers, the highest population in the Cove was during the 1850s when there were 685 people in 132 households!

The Present

There are only a few houses, barns, and other buildings still standing from the past. During your visit to the Cove, you will see some of these representative buildings and try to imagine what life was like before the park came into being. Today the National Park Service mows and intermittently conducts prescribed burns in some fields. This practice keeps the land open and unforested, as it was when the settlers lived here.

Cable Mill Area

Except for the mill, old buildings in this complex were assembled here from other places in the park. The store and blacksmith shop were constructed in recent years to represent what might have been here.

Country Store

In 1850 the community of Cades Cove was populous enough to support several general stores. Although remote, these stores offered a wide variety of goods. Hardware and house-

wares comprised much of the stock. The farmers bought harnesses, tools, guns, feed and seed. Women purchased tableware, kitchen utensils, lamp oil and other necessities. Clothing not made at home could be bought at the store. In either case, the storekeeper came out ahead because he sold cloth, and needles and thread, in addition to readymade apparel. Although most food was grown at home, the seeds often came from the store: bean, corn, potato, lettuce, beet and turnip were some that passed over the counter. Chewing gum and candy were good for a sweet tooth, while paregoric and laudanum (opium derivatives) dulled the pain of toothache and bowel disorders.

Notions of many kinds struck the fancy and the habit of the old timer. He smoked, chewed and dipped his tobacco (so did she) and tapped his foot to the music of a French harp, Jew's harp or banjo. The "store man" had them all. Stocking the store was done by wagon hauling and a customer occasionally settled his account by bringing in a load of merchandise. In a limited cash economy, there were other ways of settling up: chickens, eggs, washing clothes, cutting firewood, mending fences and repairing barrels. Even haystacks still in the field were traded too. The general store is still with us. The department store and the mall fill our needs, but they lack something. There is no smell of tobacco juice searing on the stove, no hound on the porch, no apples in a wooden barrel or cat hole in the door.

Blacksmith Shop

Iron was an important material in pioneer life. The blacksmith, its master, was a requisite figure in most communities. He pounded violently on material from the depths of hell, beside a fire from the same place, to forge a graceful candlestick. From under his hammer came the tools of life: axes, adzes, draw knives and froes; bolts and bits, chains and hooks; the bull tongue plow and the wagon tire. He made and repaired the bits and pieces that cut, dug, hung, dragged, bore through, or held together most everything else. In the earliest days of the community, and later just for convenience, most farmers needed to have basic blacksmithing skills to repair tools and equipment.

The raw materials of his work, coal (or charcoal) and iron, were scarce and valuable. Iron from the fire is an incredibly plastic material. Heated, formed into a tool and cooled, it serves for a long time. Worn out, it can be re-heated, re-formed, and given a new use and life. A simple blank becomes a spike, then a meathook, a pothook, a kettle bail and a handful of screws and so on endlessly until time forgets its original form. (a good example of recycling.)

Cantilever Barn/Flume

The large barn across the flume (waterway) is a cantilever barn. Common to this area, a cantilever barn is an example of conserving resources and effort. It is built with as little wood as possible, but still provides enough space for animal pens, hay and fodder storage, and shelter for tools and other animals. The thick parts of the beams support the weight of the roof.

The flume is part of a power system built by John Cable in the late 1860s. It starts 1/2 mile up Mill Creek where a canal was dug by hand to add the flow of Forge Creek to Mill Creek. 100 yards from the barn is a small dam on Mill Creek used to divert some water into a wood-lined ditch called a raceway. The raceway feeds water through a strainer and into the flume. This wooden trough carries the water to the top of the water wheel at the mill. Little metal is

used in the construction of the flume. John Cable relied on his ability to tightly fit the wood together and his knowledge that the water would swell the wood and seal off any leaks. Wet wood, no matter what type eventually rots and leaks. When it leaks more than the miller can stand it is replaced.

John Cable Mill (about 1870)

People need food, clothing, and shelter to survive. Food is the most critical, and corn was a central fact of life to the pioneer. A native American plant, its grain, stalks and foliage fed man and beast. Corn grew dependably with minimum attention, frequently under poor circumstances. It was a natural food choice for the farmer who had other things to do besides nursemaid the crops. Corn was used for a variety of breads, cakes, mushes and a potent beverage. But first, it had to be ground into meal.

In the Smokies, single family "tub" mills were numerous, but could grind only about a bushel per day. Though small, they were complex machines and the tools and skills needed to build one were not universally owned.

Where the need and environment were favorable, a large mill powered by a waterwheel like the Cable Mill was built and became an important feature of a community. It could grind grain much faster than a number of small tub mills. A sawmill was often operated off the same main shaft (and was here), adding another service to the community. The mill was one of the few examples of specialization in a time and place where family self-sufficiency was the rule. Milling was not done for money usually, but for trade in goods (usually corn) or services. Money was a rare commodity in the Cove and was used for outside purchases when necessary.

Smoke House

Next to the mill is a smoke house used to cure and smoke pig meat in the fall. In a two-week process, pigs were slaughtered, the meat salted to draw out the moisture, and then smoked with fruit wood or hickory to seal the meat from rotting and give good flavor. Properly treated meat would last the family the entire winter.

Gregg-Cable House

The life of a building, like that of a person, often takes many turns. Built by Leason Gregg in 1879, this may have been the first framed house in the Cove. The lumber was sawn on the sash saw portion of John Cable's Mill (now missing.) Moved once and altered as the need arose, it served its owners as a store, boarding house and private residence. A kitchen wing extends out from the rear.

Aunt Becky Cable later bought the place and lived here until her death in 1940. She helped her brother manage the store, farmed her land, and later cared for the orphaned children of her brother, and operated a boarding house. She died at 96 years of age. The stairs which come out onto the porch were used by her guests to reach their rooms upstairs. Out back by the chimney is an ash hopper used to save ashes for use in making lye. By combining lye and animal fat, pioneers could make soap for washing themselves, dishes and clothing. The corn crib sits behind the house. Another barn is further back.

Cades Cove Resources

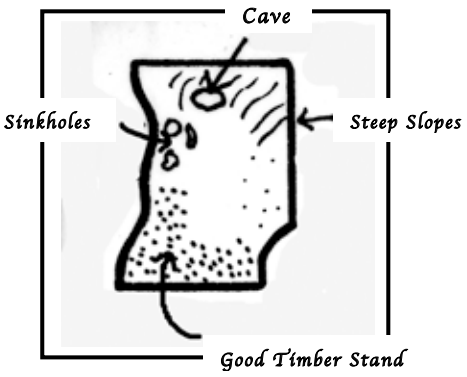
Sorghum Mill

In the field in front of the Cable house is a sorghum mill or press. The sorghum mill stands in contrast to the Cable Mill. After the juice was squeezed from the sorghum canes, it was boiled down on the furnace into a heavy syrup. Along with honey, sorghum molasses was a popular sweetener. The mill is powered by horse or mule.

Water power and animal power were two of the pioneer's important energy sources. Food and energy are at the center of our lives. Well into this century, mills like these continued to serve the mountain people, operating on primitive power alone.

*The Cades Cove Auto Tour booklet provides an excellent history of Cades Cove and is avilable at the loop entrance and the Tremont book store for a nominal fee.

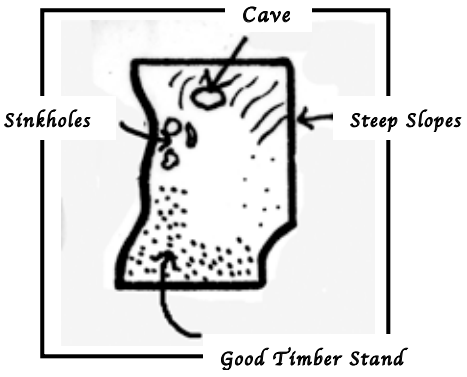
Gregory Homestead Worksheet



The year is 1830, and you have just arrived in Cades Cove. You and your family hope to live here for many years to come.

You have explored your land and drawn a map of its useful features. You have brought tools, a rifle, a milk cow, 2 pigs, 2 horses, 10 chickens, and seeds for growing vegetables and grains. There is plenty of wildlife, such as bear, deer, bobcat, wolf, turkey, and cougar. There are a few other people, including some Cherokee, but you have little contact with them.

Make a list of everything you must do to establish a home in the wilderness. List the tasks in the order in which you will accomplish them.



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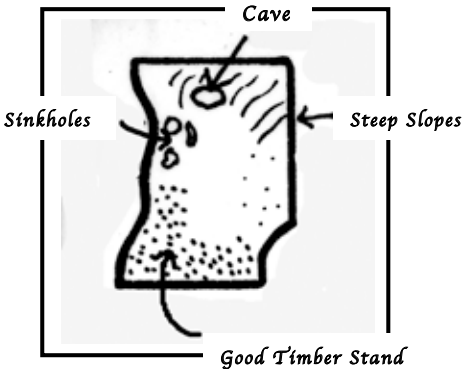

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Make a list of everything you must do to establish a home in the wilderness. List the tasks in the order in which you will accomplish them.

Cemetery Study Worksheet

PLEASE STAY ON PATH

1. When was this church organized?

2. Many of the families in Cades Cove remained here for many generations. List 5 of the most common families.
   A.

   B.

   C.

   D.

   E.

3. Who were the first permanent white settlers of the Cove?

4. What is the picture on Carl Gregory's gravestone?

5. Who was murdered by North Carolina rebels?

   Which major US event was happening at the time of his death?

6. List the number of graves of children younger than you.

7. What is the year or years when many people died?

   Do you know why?

8. Who is the longest lived person you can find?

   How old was this person?

9. Whose grave is the oldest you can find?

   Whose is the youngest?

10. Find an epitaph you like and write it below.

Cades Cove Resources

Elijah Oliver Homeplace Photo Find

1. What was this building used for?

Why is it so close to the house, why does it have a dirt floor instead of wooden one like most of the other buildings here, and why are there no windows?

Hint: How did people preserve meat before they had refrigerators?

2. What clues can you find to tell you what this building was used for?

What is the purpose of the high window?

Why is this building downhill from the house and the other buildings?

Is there any part of this building not made from wood?

3. This room was not part of the original house, but was added on later. It used to be someone else's cabin, but the Olivers bought it, took it apart, and moved it to this spot.

Go inside and look around. What did they use this room for?

Why do you think the family wanted this extra room?

Cades Cove Resources

Elijah Oliver Homeplace Photo Find

4. Where is the water coming from?

Feel the temperature of the water in the trough. What do ou think the trough may have been used for?

5. This building is called the corncrib.

Why do you think the floor is so high off the ground?

What keeps the floor off the ground?

What animals would not have been welcome here? Which animals would the Olivers have been glad to see in their corncrib?

6. Would you carve or write on the walls of your own house?

Every building in Cades Cove belongs to all American citizens, including you.

Why do you think people vandalize them?

If you were in charge of the park, what would you do about this problem?

Elijah Oliver Homeplace Photo Find

7. The largest section of the house was built first, and the other parts were added on later.

Go inside the large sectin and look around.

What details do you notice?

How is this place like your own home?

How is it different?

8. This room was not part of the original cabin, but was added on later. It was called the "Stranger Room."

What do you think it may have been used for?

How is it different from the rest of the house?

9. This area is called a dogtrot.

Can you feel a breeze blowing through?

What kinds of things do you think the Olivers did in this space?

Cades Cove Resources

Elijah Oliver Homeplace Photo Find

10. What do you think this space was used for?

Look at the door, to find out how it was attached to the house and how it stays closed.

Why would the Olivers have wanted a door here instead of just leaving it open?

11. How was this house put together?

What steps did the builders take, from finding the trees, to having a finished house?

Which part of the house do you think had to be replaced most often?

12. What do you think this building was used for?

What would the temperature inside be like on a hot summer day?

Why is this building located where it is?

Elijah Oliver Homeplace Photo Find

13. Do you think this tree was growing here when the Olivers lived in this house? Why or why not?

Smell its needles. Do you know what kind of tree this is?

How could this tree have been useful to a pioneer family? Hint: It was sometimes called a "Chicken Tree."

Can you find any other plants around here that the Olivers might have planted?

14. Who may have slept in the loft?

What do you think it was like?

Try to imagine what the temperature was like during different seasons, what it smelled like with a fire going in the fireplace, and how crowded it might have been with a big family.

Would you have liked living here?

Elijah Oliver Homeplace Photo Find Questions and Answers

Photo #	Questions and Answers
1	What was this building used for? (Smokehouse) Why is it so close to the house, why does it have a dirt floor instead of a wooden one like most of the other buildings here, and why are there no windows? (It has a dirt floor because a fire was built in here to smoke the meat. The Olivers wouldn't have wanted to burn through the floor, and if there had been windows, the smoke would have been wasted. Meat was also stored here once it was cooked, and that's why the smokehouse is right next to the kitchen.)
2	What clues can you find to tell you what this building was used for? (This building is the stable, as you can tell because it has feed troughs inside and separated stalls.) What is the purpose of the high window? (The feed for the animals would have been stored in the loft, and the farmers would have loaded hay in through the high window.) Why is this building downhill from the house and the other buildings? (Animals were kept in this building and the Olivers wouldn't have wanted animal wastes to flow downhill into other buildings.) Is there any part of this building not made from wood? (There are a few pieces of metal in the building, such as the door hinges, but it is mostly made from wood.)
3	This room was not part of the original house, but was added on later. It used to be someone else's cabin, but the Olivers brought it, took it apart, and moved it to this spot. Go inside and look around. What did they use it for? (This room was used as a kitchen.) Why do you think the family wanted this extra room? (Notice how close it is to the smokehouse, where meat was stored. Cooking was a major process in the days before electricity and modern conveniences, so it must have been a relief to the family to have a separate room dedicated to this task)
4	Where is the water coming from? (Inside Springhouse: The water was piped in from a spring just up the hill.) Feel the temperature of teh water in the trough. What do you think the trough may have been used for? (Food could be placed in the trough to keep it cold. Some people say that the Olivers extended the homemade wooden pipe all the way to the house, to create some of the earliest indoor running water in Cades Cove.)

Elijah Oliver Homeplace Photo Find Questions and Answers

Photo #	Questions and Answers
5	This building is called the corncrib. Why do you think the floor is so high off the ground? (This was where the Olivers stored their corn. It was built high off the ground to keep moisture from getting in and rotting the corn.) What keeps the floor off the ground? (The floor is kept off the ground by rocks.) What animals would not have been welcome here? Which animals would the Olivers have been glad to see in their corncrib? (Mice and other rodents would not have been welcome since they would have eaten some of the corn. Black rat snakes were welcome residents under the corncrib because they ate mice.)
6	Would you carve or write on the walls of your own house? Every building in Cades Cove belongs to all American citizens, including you. Why do you think people vandalize them? If you were in charge of the park, what would you do about this problem? (Vandalism: Because there are so many visitors in the park and only a limited number of park rangers, some vandals are not caught. If people are caught carving or writing on buildings, they are fined. Rangers and volunteers work hard to teach park visitors the value of these resources so that fewer people will thoughtlessly destroy them.)
7	The largest section of the house was built first, and the other parts were added on later. Go inside the large section and look around. What details do you notice? (This is the oldest part of the cabin, so for a while the family lived only in this room. There are windows for light and a fireplace for heat, because they had no electricity.) How is this place like your own home? How is it different?
8	This room was not part of the original cabin, but was added on later. It was called the "Stranger Room." What do you think it may have been used for? (If a stranger or traveler was passing through, they could stay here. A separate room gave the stranger some privacy and protected the family from unsavory characters.) How is it different from the rest of the house? (It is built differently from the rest of the house, out of sawn boards instead of logs.)

Elijah Oliver Homeplace Photo Find Questions and Answers

Photo #	Questions and Answers
9	This area is called a dogtrot. Can you feel a breeze blowing through? What kinds of things do you think the Olivers did in this space? (Because of the cool breeze, this was an ideal spot for chores like shelling beans or mending clothing. There's natural air conditioning.)
10	What do you think this space was used for? (Root cellar: Used for storing potatoes and other foods. It was warm enough under the house that the food didn't freeze, but cool enough that it stayed fresh.) Look at the door to find out how it was attached to the house and how it stays closed. (The door is held on by wooden pegs.) Why would the Olivers have wanted a door here instead of just leaving it open? (The door was put there to keep wild animals and farm animals out of the family's food. If you look inside the largest room of the house beside the fireplace, you will notice that the floorboards look a little different there. When the Olivers lived here, there was a hinged trapdoor into the root cellar, called the "tater hole.")
11	How was this house put together? (This house was fitted together like a puzzle.) What steps did the builders take, from finding the trees to having a finished house? (The builders had to find good straight trees, cut them down, and drag them to the place where the house was to be built. Sometimes they would scrape the bark off, and sometimes they would hew the logs to make them more square than round. Then they would notch the corners and gather people from the community to help put the walls together, and next they would build the roof and cut out holes for windows. Finally, they would chink the walls by stuffing the cracks with a mixture of mud, rocks, straw, and sometimes even horsehair.) Which part of the house do you think had to be replaced most often? (The chinking would crumble over time and had to be replaced every few years. Replacing the chinking was often the children's job.)
12	What do you think this building was used for? (Springhouse: This building was used to keep food cold.) What would the temperature inside be like on a hot summer day? (Cool) Why is this building located where it is? (It was built uphill from the rest of the home area because all of the chickens and other animals running around the yard could soil the water.)

Elijah Oliver Homeplace Photo Find Questions and Answers

Photo #	Questions and Answers
13	Do you think this tree was growing here when the Olivers lived in this house? Why or why not? (This tree was growing here when the Olivers lived here, as you can tell from its size and girth. Most of the other trees in the area are not as big.) Smell its needles. Do you know what kind of tree this is? (It is a cedar tree.) How could this tree have been useful to a pioneer family? Hint: It was sometimes called a "Chicken Tree." (Its pungent smell was useful in protecting chickens from predators at night. The chickens would roost in the tree, and foxes could not find them because the tree masked the scent of the chickens.) Can you find other plants around here that the Olivers might have planted? (There are a few other plants in the yard that the Olivers probably planted, including a patch of yucca by the woods on the other side of the house.)
14	Who may have slept in the loft? (With a big family and a three-room house, there wasn't space for everyone to sleep downstairs. The whole house would have been filled with beds! So the kids usually slept upstairs on some kind of mattress on the floor.) What do you think it was like? Try to imagine what the temperature was like during different seasons, what it smelled like with a fire going in the fireplace, and how crowded it might have been with a big family. Would you have liked living here?

Cades Cove Resources

Dan Lawson Homeplace Photo Find

1. Would you carve or write on the walls of your own house?

Every building in Cades Cove belongs to all American citizens, including you.

Why do you think people vandalize them?

If you were in charge of the park, what would you do about this problem?

2. Do you think this tree was growing here when the Olivers lived in this house? Why or why not?

Smell its needles. Do you know what kind of tree this is?

How could this tree have been useful to a pioneer family? Hint: It was sometimes called a "Chicken Tree."

Can you find any other plants around here that the Olivers might have planted?

3. What are these stones for?

Where might they have come from?

Today, what part of our homes serves a similar purpose?

Cades Cove Resources

Dan Lawson Homeplace Photo Find

4. Who may have slept up in the loft?

What do you think it was like?

Try to imagine what the temperature was like during different seasons, what it smelled like with a fire going in the fireplace, and how crowded it might have been with a big family.

Would you have liked sleeping up here?

5. How was this house put together?

What steps did the builders take, from finding the trees to having a finished house?

Which part of the hosue do you think had to be replaced most often?

6. What is covering the roof?

What makes this different from modern construction methods?

How many of these overlapped to ensure watertightness?

Cades Cove Resources

Dan Lawson Homeplace Photo Find

7. Why would the Lawsons need fences?

Look at how it is constructed. Is this different from how you might build this today?

Why was it built this way?

8. This building is called the granary. Why do you think the floor is so high off the ground?

What keeps the floor off the ground?

Are there any animals that would be welcome in the granary?

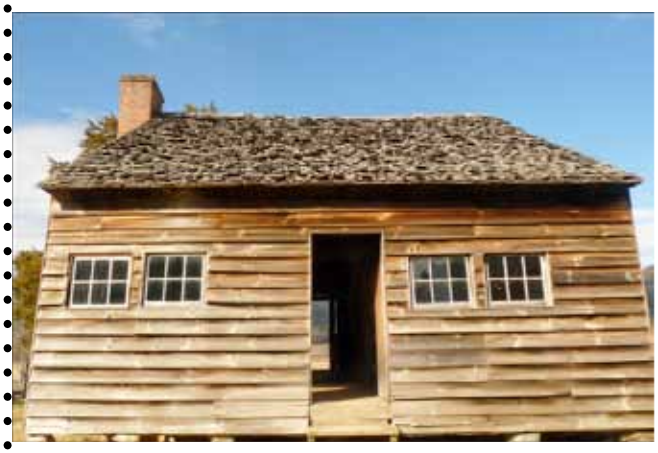
9. The largest section of the cabin was the original house, and the other parts were added on later. Go inside the large section and look around. What details do you notice?

How is this place like your own home?

How is it different?

Cades Cove Resources

Dan Lawson Homeplace Photo Find



10. This room was not part of the original cabin, but was added on later. It was called the "Stranger Room." What do you think it may have been used for?

How is it different from the rest of the house?

11. What do you think this building was used for?

Why is it so close to the house, and why does it have a dirt floor instead of a wooden one like most of the other buildings here?

(Hint: How did people keep their meat fresh before they had refrigerators?)

12. What kind of tree is this?

Did the Lawsons keep this fruit for themselves or did they sell it?

How do you thiink these fruits were preserved for later use?

Cades Cove Resources

Dan Lawson Homeplace Photo Find

13. Where did the Lawsons get their water?

Whose job was it to haul the water to the house?

What did they use water for on an average day?

14. What was the fireplace used for?

What is the fireplace built out of?

The low windows are called "Granny holes." What do you think Granny could see from these windows?

15. There is clay "chinking" all around the house. What is the purpose of the chinking?

How often do you think teh chinking was replaced?

Who had the job of replacing the chinking?

Cades Cove Resources

Dan Lawson Homeplace Photo Find

16. What do you think this space was used for?

Look at the door, to find out how it was attached to the house and how it stays closed.

Why would the Lawsons have wanted a door here instead of just leaving it open?

17. Dan Lawson had a unique job in the community. He had a special room devoted to the service he performed. Take a look at this room and see if there are any clues to what Dan Lawson's job was.

What do you think the high window was used for?

(Hint: It was one way literate people communicated to one another.)

18. Why do you think the doors in these buildings are so short compared to the doors in modern houses?

Dan Lawson Homeplace Photo Find

19. Why is this fence here?

Do you think Dan Lawson built it? How do you know?

20. What do you think was stored in this section of the barn?

Are there any artifacts remaining on the shelves or walls?

21. Why are there so many buildings on the Dan Lawson property?

Are there many buildings where you live? Why or why not?

Dan Lawson Homeplace Photo Find

22. Where did the bricks for this chimney come from?

Dan Lawson Homeplace Photo Find Questions and Answers

Photo #	Questions and Answers
1	Would you carve or write on the walls of your own house? Every building in Cades Cove belongs to all American citizens, including you. Why do you think people vandalize them? If you were in charge of the park, what would you do about this problem? (Vandalism: Because there are so many visitors in the park and only a limited number of park rangers, some vandals are not caught. If people are caught carving or writing on buildings, they are fined. Rangers and volunteers work hard to teach park visitors the value of these resources so that fewer people will thoughtlessly destroy them.)
2	Do you think this tree was growing here when the Lawsons lived in this house? Why or why not? (This tree was growing here when the Lawsons lived here, as you can tell from its size and girth. Most of the other trees in the area are not as big.) Smell its needles. Do you know what kind of tree this is? (It is a cedar tree.) How could this tree have been useful to a pioneer family? Hint: It was sometimes called a "Chicken Tree." (Its pungent smell was useful in protecting chickens from predators at night. The chickens would roost in the tree, and foxes could not find them because the tree masked the scent of the chickens.) Can you find other plants around here that the Lawsons might have planted? (apple tree, boxwood shrubs)
3	What are these stones for? (foundation) Where might they have come from? (creek) Today, what part of our homes serves a similar purpose? (concrete footing or foundation)
4	Who may have slept up in the loft? (With a big family and a three-room house, there wasn't space for everyone to sleep downstairs. The whole house would have been filled with beds! So the kids usually slept upstairs on some kind of mattress on the floor.) What do you think it was like? Try to imagine what the temperature was like during different seasons, what it smelled like with a fire going in the fireplace, and how crowded it might have been with a big family. Would you have liked sleeping up here?

Dan Lawson Homeplace Photo Find Questions and Answers

Photo #	Questions and Answers
5	How was this house put together? (Huge logs were fitted together at the corners with half dovetail notches.) What steps did the builders take, from finding the trees to having a finished house? (The builders had to find good straight trees, cut them down, and drag them to the place where the house was to be built. Sometimes they would scrape the bark off, and sometimes they would hew the logs to make them more square than round. Then they would notch the corners and gather people from the community to help put the walls together, and next they would build the roof and cut out holes for windows. Finally, they would chink the walls by stuffing the cracks with a mixture of mud, rocks, straw, and sometimes even horsehair.) Which part of the house do you think had to be replaced most often? (The chinking would crumble over time and had to be replaced every few years. Replacing the chinking was often the children's job.)
6	What is covering the roof? (shingles) What makes this different from modern construction methods? (They used natural materials, usually oak in this area, to make the shingles.) How many of these overlapped to ensure water tightness? (three)
7	Why would the Lawsons need fences? (They may have wanted to keep some animals out of certain areas, or in certain areas.) Look at how it is constructed. Is this different from how you might build this today? (Yes, most fences today are straight and may be made of wood, plastic, or metal.) Why was it built this way? (They did not need to use nails to attach the rails.)
8	This building is called the granary. Why do you think the floor is so high off the ground? (This was where the Lawsons stored their wheat. It was built high off the ground to keep moisture from getting in and rotting the wheat.) What keeps the floor off the ground? (The floor is kept off the ground by rocks.) Are there any animals that would be welcome in the granary? (Black rat snakes were welcome residents because they ate mice.)
9	The largest section of the cabin was the original house, and the other parts were added on later. Go inside the large section and look around. What details do you notice? (This is the oldest part of the cabin, so for a while the family lived only in this room. There are windows for light and a fireplace for heat, because they had no electricity.) How is this place like your own home? How is it different?

Dan Lawson Homeplace Photo Find Questions and Answers

Photo #	Questions and Answers
10	This room was not part of the original cabin, but was added on later. It was called the "Stranger Room." What do you think it may have been used for? (If a stranger or traveler was passing through, they could stay here. A separate room gave the stranger some privacy and protected the family from unsavory characters.) How is it different from the rest of the house? (It is built differently from the rest of the house, out of sawn boards instead of logs.)
11	What do you think this building was used for? (Smokehouse) Why is it so close to the house, and why does it have a dirt floor instead of a wooden one like most of the other buildings here? (It has a dirt floor because a fire was built in here to smoke the meat. The Lawsons wouldn't have wanted to burn through the floor. There are no windows, because the smoke would have been wasted. Meat was also stored here once it was cooked, and that's why the smokehouse is right next to the kitchen.) (Hint: How did people keep their meat fresh before they had refrigerators?)
12	What kind of tree is this? (apple) Did the Lawsons keep this fruit for themselves or did they sell it? (probably both) How do you think these fruits were preserved for later use? (Some varieties of apples could be stored for a long time. Apples were also turned into apple juice, cider, vinegar, applesauce, and apple butter. Drying was one method of preserving apples for future use. They would be cut into thin slices and either placed outside in the sun or dried inside in front of a fireplace. Another way to preserve apples was to bleach or sulfur them. To do this, slices of apples were exposed to sulfur smoke to kill bacteria. This bleached the apple slices white and they were stored for later use, often for stack cakes and fried pies.)
13	Where did the Lawsons get their water? (creek) Whose job was it to haul the water to the house? (Most likely the children would have hauled water). What would they have needed water for? (food preparation, drinking, cleaning the house and themselves, water for animals, laundry)
14	What was the fireplace used for? (cooking and heat) What is the fireplace built out of? (bricks) The low windows are called "Granny holes." What do you think Granny could see from these windows? (Granny could sit by the fire and tend the cooking while sewing or knitting with light from window. She could watch the children and also notice if company was coming.)

Dan Lawson Homeplace Photo Find Questions and Answers

Photo #	Questions and Answers
15	There is clay "chinking" all around the house. What is the purpose of the chinking? (To keep drafts out, could also deter small animals from entering.) How often do you think the chinking was replaced? (Probably yearly, as the clay dried and shrunk it would fall out. Often it might be removed in summer to allow breezes to enter, and would then need to be replaced before winter.) Who had the job of replacing the chinking? (Often the children did this.)
16	What do you think this space was used for? (storage) Look at the door, to find out how it was attached to the house and how it stays closed. Why would the Lawsons have wanted a door here instead of just leaving it open? (hide clutter, help keep heat in main room)
17	Dan Lawson had a unique job in the community. He had a special room devoted to the service he performed. Take a look at this room and see if there are any clues to what Dan Lawson's job was. (Dan Lawson operated a post office out of his home.) What do you think the high window was used for? (Cades Cove residents could pick up their mail from Dan Lawson through this window.) (Hint: It was one way literate people communicated to one another.)
18	Why do you think the doors in these buildings are so short compared to the doors in modern houses? (Some people think short doors and rooms indicate that the people who lived then were shorter, but this was really a savings of heat and resources.)
19	Why is this fence here? (cattle grazing, kept cattle out of some areas) Do you think Dan Lawson built it? How do you know? (Probably not as he would have used stones or wood, not metal)
20	What do you think was stored in this section of the barn? (tools, saddles, livestock needs) Are there any artifacts remaining on the shelves or walls? (varies)
21	Why are there so many buildings on the Dan Lawson property? (Each of the buildings served a purpose--the smokehouse and granary were needed for food storage, the barn for animals.) Are there many buildings where you live? Why or why not? (Probably not, unless you live on a farm. Today you can go to the grocery store to buy food--you don't need to prepare and store it for the year.)

Dan Lawson Homeplace Photo Find Questions and Answers

Photo #	Questions and Answers
22	Where did the bricks for this chimney come from? (The brick chimney is unusual for this time period. A hole was dug in a clay bank on the site and partially filled with water. The mixture was worked to the proper consistency with a hoe or a paddle, and then placed into molds to dry. The bricks were then stacked and fired, and could be used once they cooled.)

Cades Cove Resources

Cable Mill Photo Find

1. What was the title of the person who worked here?

Name three items made in this place.

Why do you think there are such large gaps in the wall?

2. On which building do you find this?

"Use it up, wear it out, make it do, or do without." How does this item represent this old time saying?

Today we would say that the person who made this was practicing what type of conservation?

3. What is this?

To put the metal and wood together requires great skill; the person who did this is called a what?

Coal was rare, so the forge was fired with what type of fuel?

Cable Mill Photo Find

4. Less than 100 yard upstream is a dam. Why?

Why is this lined with wood and not left bare?

The wood is probably from a black locust tree. What quality makes this a good choice?

5. Give two reasons why no metal was used in this structure.

Which tool did the miller use to make this, an axe or a saw?

The mill could saw wood mechanically. Didn't he cut the wood for this structure there?

6. What does this support?

Why is this thick in the middle and tapered at the ends?

Why was this structure built with such an overhang?

Cable Mill Photo Find

7. Where and what are these?

There are at least three layers of these. Why?

They were cut with a froe, a type of blade, from a white oak tree. Why did they use white oak?

8. In what device do you find these?

What are the holes used for?

What would this accomplish?

9. This is one of a pair of what rock tools?

Why use hard, rough stone like this?

Why does this one have a metal brace?

Cable Mill Photo Find

10. Why are there grooves carved on this?

Cutting thse grooves is called "dressing a stone." Who did it?

This was done by hand with a metal chisel. How long to you think it took?

11. Is this mill wheel overshot or undershot?

How does this work?

Through a series of gears, what does this create?

12. Why is this column here?

The wedges at the top are there for what reason?

If this were two feet taller, what would happen?

Cades Cove Resources

Cable Mill Photo Find

13. Where and what is this?

Why is this made out of wood?

Is it better than a metal one?

14. What was this small room used for?

Why is there a bench on the right?

Usually these had a dirt floor. What are the advantages and disadvantages of a wooden floor?

15. What and where are these?

What wood was used and how many layers were needed?

How often would they need to be replaced?

Cable Mill Photo Find

16. The stones were found around the farm to build this. What is it?

The bench here, called the "hot bench," was often used by young couples for "sparking." What do we call this activity today?

Why was this done outside and not in the house?

17. What is this called and what is stored in it?

Why does it have a lid on it?

Water was poured into the top and collected from the bottom to make what?

18. This is one of two doors on what building?

How are the doors arranged?

The crop stored here was put in through the top, but removed from the bottom. Why?

Cades Cove Resources

Cable Mill Photo Find

19. What is this used for?

To the early settlers, this joint looked like a part of a bird. What was it called?

Today we use a piece of metal to replace these. What do we call it?

20. Where can you find this?

Is there any historical significance to this?

Is it legal or right to do this? Why (not)?

21. What is this corner a part of?

Because of its zigzag shape, by what animal's name is this structure often called?

Why is it built this way instead of in a single line?

Cable Mill Photo Find

22. These large metal drums are part of what tool?

They are used for what purpose?

To get the finished product, what additional step had to be performed?

23. What is this and on what structure is it?

What was it used for?

Why does it have handles?

Cable Mill Photo Find Questions and Answers

Photo #	Questions and Answers
1	What was the title of the person who worked here? (Blacksmith) Name three items made in this place? (Horseshoes, tools, pots, etc.) Why do you think that there are such large gaps in the wall? (ventilation to keep the shop cool)
2	On which building do you find this? (Blacksmith shop) "Use it up, wear it out, make it do or do without" How does this item represent this old time saying? (Using an old item for a new purpose) Today we would say that the person who made this was practicing what type of conservation? (Recycling)
3	What is this? (Wagon wheel with metal rim) To put the metal and wood together requires great skill; the person who did this is called a _____? (Blacksmith or wheelwright) Coal was rare, so the forge was fired with what type of fuel? (Charcoal [partially burned wood] made by a person called a collier)
4	Less than 100 yards upstream is a dam. Why? (To divert water for the mill) Why is this lined with wood and not left bare? (The flowing water would erode the bare bank.) The wood is probably from a black locust tree. What quality makes this a good choice? (Rot-resistant, since it is always wet)
5	Give two reasons why no metal was used in this structure. (Metal was expensive and prone to rust) Which tool did the miller use to make this, an axe or a saw? Why? (An axe, specifically an adze, sawing takes too long) The mill could saw wood mechanically. Didn't he cut the wood for this structure there? (The flume had to be built first to power the mill.)
6	What does this support? (Upper part of cantilever barn) Why is this thick in the middle and tapered at the ends? (To limit the weight at the ends for better balance) Why was this structure built with such an overhang? (To save wood, but still provide covered storage for tools and animals.)
7	Where and what are these? (Wooden shingles on cantilever barn) There are at least three layers of these. Why? (To shed water and cover all cracks) They were cut with a froe, a type of blade, from a white oak tree. Why did they use white oak? (Rot-resistant wood that splits easily)

Cable Mill Photo Find Questions and Answers

Photo #	Questions and Answers
8	In what devise do you find this? (Sluice gate in the mill flume) What are the holes used for? (To adjust the height of the board and therefore the flow of water to the mill) What would this accomplish? (Turning on/off or changing speed of mill)
9	This is one of a pair of what rock tools? (Millstones) Why use a hard, rough stone like this? (To provide good cutting edges that won't clog) Why does this one have a metal brace? (It's the top [runner] stone; brace attaches to a shaft so the stone can turn.)
10	Why are there grooves carved on this? (To properly grind the corn and move it through the mill) Cutting these grooves is called "dressing a stone." Who did it? (The miller or a hired millwright) This was done by hand with a metal chisel. How long do you think it took? (Two to three days, typically done once per year)
11	Is this mill wheel overshot or undershot? (Overshot) How does this work? (Water flows over top and fills pockets on wheel; the weight of the water thn pulls the one side of the wheel, causing it to turn.) Through a series of gears, this creates what? (Energy to turn the millstones inside [or operate the sawmill when it was still there])
12	Why is this column here? (To support the flume amd direct it to the top of the waterwheel) The wedges at the top are there for what reason? (To fine tune the level and slope of the flume so the water flows properly) If this column was two feet taller, what would happen? (Water wouldn't flow correctly)
13	Where and what is this? (Hinge on smokehouse door) Why is this made out of wood? (Cheaper and more available than metal) Is it better than a metal one? (Yes. It saves the cost and time of forging metal hings and is equally as durable.)
14	What was this small room used for? (Smokehouse for smoking/curing meat) Why is there a bench on the right? (This is the salting bench, where pork was salted to leach out moisture before smoking it.) Usually this type of building had a dirt floor. What are the advantages and disadvantages of a wooden floor? Wood floors help keep animals and insects

out, but requires the fire be built in a fire pot.

15 What and where are these? (Wooden shingles on Gregg-Cable house)
What wood was usee and how many layers were needed? (White oak wood; three layers to cover gaps)
How often would they need to be replaced? (Every 15-20 years)

16 These stones were found around the farm to build this. What is it? (Chimney on Gregg-Cable house)
The bench here, called the "hot bench," was used by young couples for "sparking." What do we call this activity today? (Courting or dating)
Why was this done outside and not in the house? (Many families were large and there was little or no privacy inside.)

17 What is this called and what is stored in it? (Ash hopper; stores fireplace ashes)
Why does it have a roof on it? (To keep ashes dry until ready for use)
Water was poured into the top and collected from the bottom to make what? (Lye, which was mixed with animal fat to make lye soap)

18 This is one of two doors on what building? (Corn crib)
How are the doors arranged? (One up high, one down low)
The crop stored here was put in through the top, but removed from the bottom. Why? (To give the corn time to dry thoroughly)

19 What is this used for? (To hold the logs of the barn together securely)
To the early settlers, this joint looked like a part of a bird. What was it called? (Half dove-tailed notch)
Today we use a piece of metal to replace these. What do we call it? (A nail)

20 Where can you find this? (Western endof two-pen/drive-through barn)
Is there any historical significance to this? (No, it was done in 1989).
Is it legal or right to do this today? Why (not?) (No. Vandalism robs us all of the best historical experience, and it is strictly forbidden in the National Park)

21 What is this corner a part of? (Joint in the split-rail fence)
Because of its zigzag shape, by what animal's name is this structure often called? ("Snake" fence)
Why is it built this way instead of in a straight line? (No need to set posts; easy and quick to construct or move if necessary)

22 These large metal drums are part of what tool? (Sorghum press)
They are used for what purpose? (Squeezing the sap out of the sorghum cane)
To get the finished product, what additional step had to be performed? (Boiling the sap into molasses)

23 What is this and on what structure is it? (Pan on the sorghum furnace)
What was it used for? (Boiling and reducing sorghum molasses)
Why does it have handles? (To rock it back and forth, keeping the sorghum moving to prevent scorching)

Cades Cove Letter

The life of a child growing up in Cades Cove was very different than your life is today. Try to imagine yourself growing up in Cades Cove in the 1800s, before this area became a national park. What would a typical day be like? Write down your thoughts in the form of a letter to a friend who lives somewhere else in America. Describe for them what is going on in your life here in Cades Cove.

Dear _____, ,1889