

SCIENCE

STORM ON THE MOUNTAIN

STORM ON THE MOUNTAIN oozes with Science! Jump into the experience!

Caution – Choose the right location and observe all advisable safety precautions!

1 Fight to the Finish!

- Bring a Border Collie (or other appropriate dog) to class for Show and Tell.
- Study ants and anthills. Observe an ant farm.

2 A Stick, Two Cousins, and a Grand Uncle

- Study rocks, especially those collected from a creek or river.
- Have students bring in and observe creek critters – like water bugs, minnows, crawdads, &/or frogs.



3 Terrible Turtle Troubles

- Bring a box turtle to the classroom. Be sure to wash hands carefully to avoid bacteria that cause Salmonella!
- Research box turtles – habitats, food, etc.

4 The Stick Strikes Again!

- Research the effects of four-wheelers on land and waterways.
- Discuss how to use four-wheelers in a lawful and environmentally safe way.

5 Disaster Ahead!

- Demonstrate how the friendly neighbor pulled Uncle Nunk's old truck out of the ditch. Use model trucks, pulleys, chains, rope, etc. How do you move things? How much force does it take?

6 Uncle Nunk Confronts the Bullies

- Experiment using ice to numb skin. Why is it effective? Be careful not to overdo!

7 Isabella's Flight to Tennessee

- Do a flight simulation.
- Research air traffic control.

8 Superman and the Princess

- Conduct running races.
- Discuss how and why people move differently as they age.

9 Pygmy Goat Fun.

- Arrange for a goat Show and Tell – outside, of course!

10 Buttercup and Puddle

- Study and write about pygmy goats. Do they make good pets?

11 Isabella Arrives

- Watch a DVD of the Great Smoky Mountains National Park.
- Gather notable facts about the GSMNP.
- Research rockslides in mountainous terrain. Can they be controlled?

12 Isabella Meets Goats and Boys

- Bottle feed a baby goat, if possible.
- Research how to care for baby pigmy goats.



13 A Rocky Start

- Collect, observe, identify, and draw wildflowers – include chicory and Queen Anne’s Lace, if available.

14 Possum Problems

- Collect pictures and facts about opossums.

15 Bird Bombs and Old Buildings

- Study the structure of cantilever barns.
- Go on a field trip to a barn – if possible, to a cantilever barn.
- Lay on your back and find pictures in the clouds. Draw what you see.



16 Homemade Ice Cream

- Make homemade ice cream with an old fashioned, wooden ice cream maker. Analyze the process.

17 Cometh “The Nunk”!

- Discuss wilderness survival.

18 The Gang’s All Here

- Eat fresh blackberries. Research their uses. Bake blackberry cobbler.

19 A People Camp and a Goat Camp

- Draw earthworms. Why do you sometimes find “bonked-out” worms (as Nandan would say) on sidewalks?

20 Before We Hit the Trail

- Draw a compass.
- Demonstrate the use of an Emergency Blanket, water purifying tablets, first aid kit, safety whistles, rain parka, and/or waterproof matches. Why could each be the difference between life and death?



21 Rogues and Rotten Eggs

- Research chicken eggs, their uses, and variety of ways to eat.
- Peel and eat boiled eggs.

22 Two Nuts in a Net

- Draw a net trap. How does it work?

23 Mope and Scratch on a Rainy Day!

- Draw and discuss poison ivy and or chiggers.
- Write about what you like to do on a rainy day.

24 Gran to the Rescue

- Bake and taste test chocolate chip cookies.
- Research how rain affects the Great Smoky Mountains National Park.

25 It's a Go!

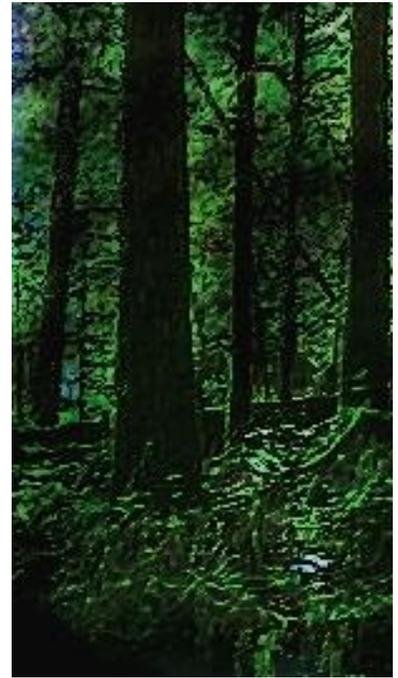
- Draw a backpack full of gear.
- How much weight could you carry in your backpack? For how long? Experiment.

26 A Day in the Woods

- Draw a scene in Doc's forest.
- How is an undisturbed forest unique?

27 In the Swing of Things

- Research and write about grapevines.
- Based on your study, make a list of grapevine swinging guidelines.
- Use the swinging equipment on the playground.
- Construct model swings. How do they work?



28 Esther's Surprise

- Mix strawberry jam, mayonnaise, and pickles. Taste with bread. Why do you like or dislike the combination? What ingredients do mix well with jam or mayonnaise or pickles?
- What is a spring? Why is spring water cool? Take a field trip to a spring.
- Have a picnic under a tree. Analyze why a picnic is fun.

29 Treehouse Trauma

- Design the perfect treehouse.
- What kind of tree is best for treehouses?
- Build a treehouse with blocks or Legos – or if you're lucky, the real thing – with an adult's help, of course.
- Make a rope ladder using string.

30 Of Snakes, Bears, and Skunks

- Design the best layout for a campsite in a campground.
- Set up tents and camping gear.
- Grill hamburgers, with adult help.

31 Ranger Gives a Weather Report

- Research weather in the Great Smoky Mountains National Park. Explain the effect of elevation, season of the year, etc.
- Keep a month's record of the weather conditions in both Gatlinburg and Clingmans Dome. Analyze your findings.

32 Storm on the Mountain

- Draw a lightning storm in the mountains.
- Under what conditions can popup thunderstorms occur? . . . or a line of storms?
- Research and write a paragraph about why trees fall.
- What happens when you "turn an ankle"? What should you do?

33 Chaos in the Park

- Watch a DVD of thunderstorms, tornadoes, heavy rain, etc.
- Get WET! Have a water fight on the playground using spray bottles, water balloons, etc.

34 Nunk Searches for Shelter

- Study, write about, and/or draw the effect of heavy rain on the GSMNP.
- Research and write about bear dens.

35 Traversing the Mountainside

- Draw a rope. Why is a rope important safety gear?
- On the playground, create an obstacle course with swing bars, monkey bars, horizontal ladder, zipper, slides, climbing ropes, etc.



36 Trapped!

- Meet in a small, dark place to read this chapter.

- Eat PowerBars.
- Dig with a short-handled shovel – in an appropriate place.
- Do the “army-belly” crawl in the gym. How fast can you move?

37 Ranger Down!

- Experiment using levers and fulcrums to lift objects.
- Construct make-shift crutches with sticks.

38 Facing-down The Bullies

- As a result of the falling tree, Ranger Mace had a concussion and five broken ribs. What is the procedure for treatment and recovery?

38 Final Good-byes

- What conditions made it difficult at first for Bella to adapt to living in the mountains?
- If Evan and Mica spent ten days in a big city, what things would be very different for them? (Charu used to live in the city, so she could adjust more easily.)



This page and other Teacher Helps and Student Activities are available at www.SmokyMountainStickboy.com.