



Backyard Safari

Science, Natural History

GPN 1998

13 30-minute programs for grades K-2
Year to Year Tape and Keep Rights
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Backyard Safari is an engaging series of thirteen 30-minute programs that introduces young students to science and natural history. The primary goal of the series is to excite positive connections with scientific practice. A complementary goal is to help empower all children to see themselves as scientists who can turn off the television, step outside, and learn from the world around them.

101 That's My Baby -

Science: K.6, K.8, 1.5, 2.4, 3.4

The needs of baby animals are both similar to and different from those of human babies. Celia shows her 10-month-old niece to Crinkleroot and Bud and learns how different animals are born. Viewers become acquainted with animal babies by observing baby birds hatch, watching a baby elephant walk within minutes of birth, and following a group of puppies during their first eight weeks of life. Animals reveal how they carry their young and how they care for them in ways that are similar to the way human babies are cared for. Young scientists explain how they take care of their baby pets and demonstrate how to make a Caretaking Chart.

102 Birds -

Science: K.6, 1.5, 1.7, 2.4, 2.5, 2.7, 3.4

Celia and Bud discover that birds are at home in a variety of environments, not just in trees. They learn how birds' bodies are suited to their climate and habitat. Ducks are at home in the water, with their webbed feet for swimming and wide bills for catching fish; other birds are adapted for perching on plants and pecking seeds. Crinkleroot shows how birds have different songs and how they use their appearance for different purposes. Celia visits a raptor recovery center where hawks are rescued and returned to the wild. For fun, children demonstrate how to make a bird feeder from a bleach bottle and how to go birdwatching.

103 Butterflies - Science: K.6, K.8, K.9, 1.5, 1.7, 2.4, 2.5, 2.7, 3.4, 3.8,

4.5

Celia has hatched a monarch butterfly and is about to set it free, but before she does, she learns all about the life cycle of a butterfly. She visits a butterfly expert who teaches her about the tricks caterpillars use to fool their enemies, the functions of the parts of a butterfly, and how to tag a monarch.

104 Clouds -

Science: K.8, 2.6, 4.6

Celia and Bud look for cloud pictures in the sky and identify different types of clouds. Characteristics of low, puffy cumulus clouds, flat, wide stratus clouds, and high, wispy cirrus clouds are described. Celia demonstrates that clouds are made from hot, moist air meeting cold, dry air, and explains how air drafts cause turbulence. Crinkleroot shows how clouds influence the weather through storms, snow, hail, hurricanes, and tornadoes. Viewers also see how to set up a window weather station using a thermometer, pinwheel, and a jar.

105 Color -

Science: K.5, 1.5, 1.7, 2.4, 2.5, 3.4

Celia explores the uses of color in nature. She discovers that some animals use color as camouflage to protect themselves. Other animals use color to attract mates, or protect their young. The coloration of yet other animals warns their enemies that they are dangerous. She learns that nature may even use color to perpetuate itself.

106 Dinner Tools -

Science: K.6, 1.5, 3.4, 4.5

It's time to dine at the Backyard Safari! Bud tries to get the animals in the park

to use his tools to get their food and eat, but Celia helps him understand that animals use their own tools, such as teeth and tongues, to get their food. A butterfly stretches its proboscis into a flower, a giraffe licks off leaves with its long tongue, and an anteater digs out his dinner with its long snout. Viewers see both a squirrel and shark use their teeth as tools. A young scientist teaches Crinkleroot how to make a pine cone bird feeder .

107 Dinosaurs -

Science: K.6, K.8, K.9, 1.5, 2.5, 2.7, 3.4 8.

Special investigator Celia and her friends, Crinkleroot and Bud, search for clues to the mystery of dinosaurs. Viewers learn about the work of a paleontologist, how fossils reveal the sizes and types of dinosaurs, and how dinosaur traits can be compared with those of various living animals. Crinkleroot and a young scientist demonstrate how they can dig for their own make-believe fossils and create their own dinosaurs from foil, wire, and clay. By following the trail of fossilized remains and using a little imagination, viewers discover the ancient world of dinosaurs.

108 Home Sweet Home -

Science: K.6, 1.5, 1.7, 2.5, 3.4, 3.6

Animal builders create homes that are just right for them. They use materials found in nature, and they have the right tools within their physical makeup to build their homes. Viewers see how a beaver and a weaver bird build their intricate homes. Celia gets a firsthand look at the plants and animals that live in a pond neighborhood on a tour with naturalist

and author Hope Ryden. A young scientist shows his bird nest building kit to Crinkleroot.

**109 Paper -
Science: K.10,1.8**

Celia and Bud show that paper has so many uses in a variety of forms that we take it for granted. In a visit to a paper mill, viewers see how paper is made from trees. A papermaker shows Celia how to make paper from other materials, such as old sweaters, jeans, rope, and feathers. Viewers learn the importance of recycling paper and see how their old paper is made into new paper. A young scientist demonstrates how to make paper using a few simple ingredients.

**110 Rocks and Minerals -
Science: 1.1,1.3,1.8, 4.8, 5.7**

In this episode, viewers learn how rocks are created and their many uses. Celia and Bud have a contest to see who can find the most beautiful rock. During her search, Celia learns that rocks have a variety of shapes, sizes, colors, and textures. A jewelry maker shows Celia how he turns a mineral found in its natural state into a beautiful gemstone. A young scientist combines science and art by demonstrating how to make sand designs in a jar. Crinkleroot reveals where to find rocks in different places and invites Celia to crack open a rock that is deceptively ordinary on the outside but incredibly beautiful on the inside. The various uses of rocks and minerals in everyday life—from pencils to skyscrapers—are highlighted.

**111 Tree -
Science: K.6, 1.4, 1.7, 1.8, 2.5, 2.8, 4.4, 4.5**

Celia and Bud plan a tree-planting party for an oak seedling. Viewers learn the functions of the various parts of a tree, including bark, roots, branches, and leaves. Characteristics that differ from tree to tree, such as fruit, needles, and size, are discussed. Crinkleroot demonstrates how different parts of a tree are used by wildlife. Celia meets a horticulturist who explains how to care for a tree by cutting off diseased portions and spreading mulch around the trunk. By wearing a blindfold and hugging a tree, a young boy shows how much there is to discover about a tree just by touch.

**112 Water -
Science: K.5, K.6, K.9, K.10, 1.4, 1.5, 2.3, 2.5, 3.6**

In the heat of the day, Celia enjoys cooling off with a glass of water and shows how other animals use water to keep cool. Viewers learn why animals and plants have different ways of getting the water they need in order to live. They will also see that water exists in different forms: liquid, ice, and steam. Celia boards a boat and, with the help of marine biologists, discovers a few of the many creatures that live in water, such as a sea star, lobster, turbot, and octopus. Young scientists demonstrate how plants soak up water in an experiment using carnations and food coloring, and show viewers how to make an underwater magnifying glass.

**113 Working Together -
Science: K.6, 1.5, 2.4, 2.5, 3.6, 4.5**

Celia visits her friend Bud, who is frantically trying to help customers at four different food-cart stands all by himself. As she tries to find some help for him, both she and Bud learn the importance of working together to accomplish a big project. Bud recruits help from his friends to work at the food carts and, by working together, they serve all the customers quickly and easily. Crinkleroot shows that insects, like people, work together to accomplish things. Termites, ants, and bees use the concept of working together to build and sustain their colonies. Young scientists demonstrate how to set up an ant farm in a jar and how to make beeswax candles.