

Week 1: K-1st Grade Classes

Feathers, Fins, and Feet!—*Diana Ballinger*

****TWO WEEK CLASS**** Why do animals look the way they look and live where they live? How do their unique characteristics help them survive? In this exciting two-week course, young scientists will explore animal classification and the relationship between animals and their habitats. In addition, students will discover ways that they can help protect animals and the environment.

Essential Questions: How do the needs of plants and animals differ? What helps a specific plant or animal survive? What characteristics are useful for sorting and classifying organisms?

How to Beat the Heat—*Michelle Atwood*

Do you want to learn how to beat the heat? In this fun weather class, you will do experiments to learn how to get cool and measure wind speed and rain levels. You will also learn what happens when cold air meets warm air, how clouds form and other interesting facts. Come join me to learn how to beat the heat!

Essential Questions: How does the sun impact Earth? What happens when the sun's light is blocked? How does the temperature change at different times during the day and from day to day? What changes do we make in our daily lives based on changes in the weather? How do weather patterns change throughout the year?

Survival Tool Kit—*Megan Bryant*

Explore exotic habitats from extreme climates and the species existing among them to discover the diversity of living creatures throughout our world! Compare generations of relatives to uncover family traits and explore the unique physical qualities of each individual. Discern differences and similarities among people, animals, and plants to investigate how physical traits help all living beings survive!

Essential Questions: What are characteristics and how do these differ from generation to generation? What types of specific physical characteristics help plants and animals survive? What can physical appearance tell about a plant or animal? What are commonalities and differences among humans, animals and plants?

Storybook Science—*Michelle Collins*

Each day a new story will start our adventure into the world of science! Fun, interactive activities and investigations will spark young scientists' curiosity and creativity. The Earth and Sky will be our jumping off point to learn about shadows, rainbows, the wind and

rocks while integrating children's literature, art, and drama.

Essential Question: How are Science and stories interconnected?

Fun in the Sun—*Glenn Klein*

How could we survive without our sun? We couldn't! We will learn about and investigate our amazing sun providing light and heat to the earth. We will compare temperature between night and day and learn about why we have different seasons. We will do a plant growth investigation (sun vs. no sun). You don't want to miss it! Let's go have some fun in the sun!

Essential Questions: How do we know that the sun gives heat and light to the earth? Why is this important? Is there a temperature difference between day and night? Can plants grow without heat and light from the sun?

The Math Behind the Science—*Shirley Martinson*

Can we make lightening? Why are there rainbows? How does a computer work and what's inside? If you've ever wondered about these things and want to have some fun learning about them, then join me this summer when we will explore electricity, light, computers, and the solar system, using fun, hands-on experiments to discover the math behind the science.

Essential Questions: How does it work? Why does it work? How do we know?

Commotion in the Ocean—*Mindi Mayberry*

Come explore the deep blue sea with me! We will be tasting, smelling, building, and listening to the ocean. Each day we will learn about a new layer of the ocean and add it to our 3-D model. Please bring a shoebox to hold our treasures.

Essential Questions: How are waves created? What makes up the ocean? What lives in the ocean? What body parts are required for living in the ocean? How are land creatures and water creatures similar and different?

(See more Week One and Week Two options on the following pages)

Earth Rocks!—Michelle Nab

Come and explore just exactly what makes Earth an amazing place. Meet “Sed, Iggy, and Morph” as we learn more about the types of rocks our earth is made of. Be a junior geologist and use magnifying glasses and other “scientific” tools to collect, record, and sort data. And, believe it or not, we will make our own rocks!

Essential Questions: Why do we count things? How are various materials on Earth similar and different? What are the ways data can be displayed? How can things be classified and grouped? How can we describe geometric figures? How are these shapes similar and how are they different? How does using multiple resources help to readers or writers? When people are learning new information, why is it important that the data is correct? What are the types of rocks and how are they formed?

Exploring Plants and Animals in Different Habitats—Danielle Roth

Explore the life cycles of different plants and animals from various habitats. Each day we will look at a different habitat to see how the plants and animals in that area are able to survive. Going from the depths of the oceans to tops of the highest mountains we will find out how each habitat’s organisms have similarities and differences. Our adventures will take us to explore the Ocean, Grasslands, Rainforest, Desert, and Mountains. Essential Question: What characteristics help a specific plant or animal survive and can you sort them by those characteristics?

The Art of Math, the Math of Art—Staci Schmidt

Learn math the fun way, by drawing it, painting it, gluing it, folding it, sculpting it...making art with it! In this class we will make a variety of art projects to help us learn each of the 6 Colorado math standards. We will paint and sculpt using fractions, add and round to the nearest whole using pizza collages, fold paper planes to discover symmetry and more!

Essential Questions: What are fractions, and how do artists use them to make art? What are patterns, and how can they help solve number problems? How can data help us make predictions? How can we solve problems using number combinations? What is symmetry? How do artists use geometry? How do rectangular coordinates work? How do you read a ruler and how can we sort things by size? How does rounding fractions work and when can we use rounding in real life?

Explore the FROC! (Front Range—Our Community)—Brienne Wold

A balanced schedule of education and FUN! Your child will explore their curiosities of the Front Range area of which they live. Your student will develop their creativity and questioning skills by exploring different kinds of plants and animals, how they live together in different habitats, and identify some structures for living in various weather conditions throughout the seasons.

Essential Questions: What do living things have in common? What characteristics are useful for sorting and classifying organisms? How do the needs of plants and animals differ? What helps a specific plant or animal survive? How do weather patterns change throughout the year?

Big Foot and Beyond—Laura Yaussi

Come explore folk lore legends from all over the world! Hunt for Big Foot, meet the Loch Ness Monster, and discover Dragons and more. Track these mythical creatures through their native lands and uncover the secrets to their existence. Through exploration, experimentation and inquiry we will reveal each creature’s morphology and how it allows them to survive in their unique habitats.

Essential Question: What are the characteristics, habitat, similarities and differences of each mythological creature, its region of origin and the culture it lives in?

Week 2: K-1st Grade Classes

How to Beat the Heat—Michelle Atwood

****Please see description in Week One****

Survival Tool Kit—Megan Bryant

****Please see description in Week One****

Going Batty—Carol Casebeer

Have you ever seen a bat up close? Well, now’s your chance. In the class you will learn all about bats and even get to see and touch bats. We’ll read about bats, graph information about bats, sample food that a bat would eat, practice some math using bats, and many more fun and interesting activities.

Essential Questions: Students will be able to: compare and describe using a Venn diagram, label and name different parts of a bat, explain why different species of bats have different characteristics and how those characteristics help them, describe the basic needs of animals, sequence the life cycle of a bat, and use measurement to compare objects.

Storybook Science—Michelle Collins

****Please see description in Week One****

Nuts About Nature—Susan Hunt

Do you have a sense of wonder at the world outside your door? Are you curious about seeds growing, the wind blowing, about animals, plants, and natural science? Explore nature through hands-on crafts, activities, observations, and experiments. By the end of the class we will have created with, experimented with, and learned more about our natural world.

Essential Question: What do I know about nature?

Fun in the Sun—Glenn Klein

****Please see description in Week One****

The Math Behind the Science—Shirley Martinson

****Please see description in Week One****

Commotion in the Ocean—Mindi Mayberry

****Please see description in Week One****

Earth Rocks!—Michelle Nab

****Please see description in Week One****

Exploring Plants and Animals in Different Habitats—

Danielle Roth

****Please see description in Week One****

The Art of Math, the Math of Art—Staci Schmidt

****Please see description in Week One****

Big Foot and Beyond—Laura Yaussi

****Please see description in Week One****