Education Programs 2021 – 2022

$10 per student / 30 students max per class

Time: 60 minutes

**Shape of Nature**

Shapes are found everywhere in our natural world! Students experience the many opportunities to find geometric patterns in their own backyard. Engaging the senses through sight, touch, and even sound, students learn about different shapes and the role they play in our living world. Live animal encounters enhance the experience. Students use shapes to demonstrate what they learned by creating an animal of their choice.

**Grades: Pre-K – K**

**Interesting Insects**

In this engaging and active program, insects of Alabama are in the spotlight! Students learn what makes an animal an insect while dressing up the instructor in an insect costume. Playing a matching game, the young learners understand what makes insects different from other animals. And finally, creativity fills the room as the students make their favorite insect using craft materials! This program is filled with lots of laughs and learning!

**Grades: Pre-K – 2nd**

**Power of Pollination**

In this fun and interactive program, students are introduced to the importance of pollination and our local pollinators! Students explore the basic parts of a flower and how they relate to pollination by working together to dissect a flower. While participating in an interactive game demonstrating how certain scenarios can affect the pollination and its pollinators, students learn about real-world problems and solutions for the future. Finally, students create their own bee condos to take home to provide local bees with a safe place to stay.

**Grades: K – 2nd**

**States of Matter**

What's the matter? Solids, Liquids and Gases of course! Students have a blast discovering what makes each state of matter different. With hands-on activities, interactive games and fun experiments, students learn about the atomic make up of each state as well as how matter transitions from state to state. Finally, students get messy and try to figure out what state of matter Oobleck is!

**Grades: K – 2nd**

**Helpful Habitats**

Take a stroll around the world and explore the different biomes our amazing planet holds! Students learn what makes each biome unique during participation in a variety of sensory activities and the use of fascinating biofacts. Discover what animals belong in each biome, the types of habitats they live in, and how they assist each other in their quest for survival. Live animal presentations demonstrate some of the physical attributes animals have that enable them to live in their unique biome. In conclusion, students demonstrate their creative side by creating an animal to place in a specific biome they have studied.

**Grades: Pre-K – 3rd**

**Extraordinary Life Cycles I**

Using live animals and biofacts, students discover the amazing life cycles of lady bugs, frogs, sea turtles, and sea stars! Learn about metamorphosis while watching lady bugs change and frogs leap. Discover the amazing ability sea stars possess to clone themselves and restart their life cycle! This program allows students to channel their creative side while using their terminology and knowledge of life cycles as they develop a life cycle for the Cook Museum bug!

**Grades: K – 3rd**

**Amazing Animals: Invertebrates**

What do jellies, insects, arachnids, sea sponges and snails have in common? They are invertebrates! Students will love learning all about the largest group of animals in the animal kingdom with Live Animal Presentations and hands-on activities. They may be squishy, stingy, and look strange, but they are some of the most interesting animals on earth!

**Grades: K – 3rd**

**Amazing Animals: Fish and other Aquatic Animals**

What makes a fish a fish? What characteristics do they all share? Students explore some of the amazing creatures that call water home and their many interesting characteristics. They even get to interact with our diamondback terrapin!

**Grades: K – 3rd**

**Amazing Animals: Reptiles and Amphibians**

In this interactive class, students discover the amazing differences between amphibians and reptiles! They are immersed in the world of herpetology by observing and interacting with our Animal Ambassadors, like our leopard frogs and corn snakes. They learn how to use a scientific journal and use their new knowledge and creativity to design their very own organism and habitat.

**Grades: K – 3rd**

**Extraordinary Life Cycles II**

Students receive a top-secret mission! Before their mission is complete, the students work through an interactive mission report to guide them through their task. Students discover the amazing abilities of ladybugs, frogs and sea turtles required to complete their life cycles. Live animals and biofacts are used to provide specific examples of the life cycle process. The students also become familiar with the life cycle of a plant by starting bean seeds to take back to the classroom to watch the plant life cycle occur right before their very eyes!

**Grades: 3rd – 5th**

**Herpetology 101**

The study of herpetology focuses on some of the most misunderstood and important animals in the world. Snakes, lizards, frogs, toads, and salamanders are the stars of this program, and students view them up-close! Students learn what makes reptiles so special and begin to debunk the fears that surround them. Then they explore the world of amphibians by observing them in their specially designed enclosures and discover why amphibian populations in a natural habitat can be important bioindicators – signals of healthy or hurting habitats. Lastly, students test their knowledge of reptiles and amphibians by getting creative and designing their own herp and its habitat!

**Grades: 3rd – 5th**

**Rocks, Minerals, Geology!**

With this hands-on, interactive class, students identify minerals using the same methods used by geologists - color, luster, effervescence, streak, magnetism, cleavage and hardness! Then, they gain an understanding about the three types of rocks, Igneous, Metamorphic, and Sedimentary. Wrapping it all up, students put their knowledge to the test and complete a sweet activity portraying the rock cycle!

**Grades: 3rd – 6th**

**Weather Watchers: Clouds, Lightning, and Tornadoes!**

Weather events such as clouds, lightning, and tornadoes can be so astounding that we sometimes forget that it isn’t magic – it is SCIENCE! With Weather Watchers, students step into the shoes of meteorologists and learn the secrets behind the formation of local weather events. Interactive demonstrations allow the students to watch the development of clouds, lightning, and tornadoes in the classroom! K – 3rd grade students will work together to create their own weather station equipped with a barometer, anemometer, and a weathervane. Together, they explore why these local weather events are so important to native animals and plants. Then students take their creations back to the classroom to collect data and become citizen scientists!

Students 4th – 6th  grade work together to build a home that can withstand the weather in different climates and test it out right in the classroom!

**Grades: K – 6th**

**Boluses and Pellets, Oh My!**

The natural world is full of surprises and it is not as easy to understand as we thought – which makes it fun to study! During this program, students discuss and see the difference between the food chain and food web by creating their own using props and pictures. Then, students meet a member of the animal ambassador team and briefly talk about different impacts on the food web. Afterwards, the students get an up-close experience with part of the Food Web – by dissecting an owl pellet! The students assemble the prey’s anatomy as they dissect and compare their owl’s prey skeleton to those of their classmates. To conclude, students compare the pellets of the owl to the boluses of the albatross.

**Grades: 3rd – 7th**

**Electromagnetism: Science or Superpower?**

In this shocking and interactive program, students work hands-on with the concept of electromagnetism! By first exploring and experimenting with electricity and magnetism, students review and learn concepts that help with the understanding of electromagnetism. They utilize the ideas of engineering, magnetic fields, and electric currents to build their own electromagnetic crane! Relating the concepts of electromagnetism and electricity to nature, they reveal the importance of both concepts to all kinds of life. During this class, students discover more about how this amazing phenomenon affects everyday life, and contemplate future technology using electromagnetism.

**Grades: 3rd – 8th**

**Crash, Don’t Crack!**

In this highly engaging, hands-on class, students look deeper into the structure of plants, birds, and mammals to see amazing designs for shock absorption in the natural world. They use these principles in constructing a vehicle that is both fast and safe. In conclusion, students test their vehicle against their classmates’ designs!

**Grades: 5th – 8th**

**Arthropod Comparative Anatomy Study**

In this laboratory experience, students learn about the taxonomy of the arthropod phylum, study the various appendages afforded by the arthropod exoskeleton, and distinguish among three types of metamorphoses. Students observe live crustaceans and insects and study dissected grasshopper specimens. A lab packet for each student is included.

**Grades: 5th – 8th**

**Echinoderm Investigation and Dissection**

Sea stars, sea cucumbers, brittle stars, and sand dollars, what are they? Echinoderms! Students learn what classes make up the Phylum Echinodermata and the characteristics they all share. They investigate each class, where it lives, and its role in its ecosystem. Students learn how these special animals move and what makes them echinoderms with hands-on activities and dissections of a sea star and sea urchin.

**Grades: 5th – 10th**

**All About Squid**

Investigate the amazing body structure of these squishy cephalopods! In this interactive class, students dissect a squid and study how their unique design allows them to catch food, evade predators, and thrive in oceans all around the globe.

**Grades: 3rd – 9th**

**Bovine Eye Dissection**

Studying the eye is difficult to do – that’s why we bring the eyes to you! Come join us for a dissection program focusing on the eye and how it functions. Students in this program will navigate through the anatomy of the bovine eye, discuss the structures found, and understand just how marvelous sight is!

**Grades: 7th – 10th grade**