EMERALD COAST SCIENCE CENTER

EDUCATION PROGRAM GUIDE 2022-2023

Science Enrichment | Field Trips | Family Science Night
Planetarium | Virtual Science Lab

Plan an educational experience that leaves your students inspired with one of our many in-house or outreach programs.

Science Enrichment Program

The Science Enrichment Program is designed for elementary and middle school grades with customized schedules upon request. This program consists of a range of hands-on lessons specifically designed to help students grasp difficult science standards while fostering a love across STEM disciplines. Lessons may be booked at any interval to meet the needs of your class and curriculum. Multiple lessons are recommended to provide the most beneficial programming for your students.

Standards-Based Lessons

Phases of the Moon
Using our special 3D pens, students get to illustrate the different phases of the moon.

Forces of Attraction
Magnets attract each other by exerting a magnetic force, but what makes an object a magnet? In this lesson, Dash the robot will help students conduct a scientific experiment to find out which objects are more magnetic than others and how magnets interact with each other.

Adaptation Exploration
Hands-on activities allow students to explore the many ways animals adapt to survive in their environment.

Parts of the Cell
Learn about plant and animal cells using our Augmented Reality coloring technology that will bring learning to life.

Solar System Bot
Using our Ozobot robots, students will recreate our solar system.

Solve the Sound
A unique, hands-on lesson using Sphero Specdrums allows students to strengthen computational thinking, creativity, and problem-solving skills that focuses on how the human brain processes different types of sounds.

Food Chain Maze
Our Bee-bot robots will allow students to navigate the food chain for a better understanding of producers, consumers, and decomposers.

3D Space Exploration
Students will explore space like never before using anaglyph 3D and special 3D glasses. They will learn all about our planets, their different moons, and dwarf planets located within our solar system. Students will also discover the distances of planets from the sun, get an inside look at what creates planetary cores, and much more.

Rocks & Minerals Lab
Each rock and mineral has a different characteristic depending on its composition. In this lesson, students will conduct a series of tests to properly identify igneous, sedimentary, and metamorphic rocks and minerals.

Animal Architects
Out in nature you can see many different types of animal architects, like ants, birds and even coral. Today is going to be all about exploring animal architecture and using creativity to recreate these structures.

Owl Pellet Dissections
Students will dissect sterilized owl pellets and reconstruct the skeletons of animals inside to discover the owl's diet and place on the food web.

Field Trips at the Center

We provide exceptional interdisciplinary learning opportunities for students of all grade levels. Standard field trips provide students with an animal presentation, immersive lesson, sciPad experience, and museum exploration. Custom lessons are available for any grade level upon request for an additional $25 and must be planned in advance.

Lessons for Grades K-2

Pollination Journey
Using our Bee-Bot robots, students get to explore what makes pollination so important by taking the Bee-bot along its pollination journey.

Changes That Matter
Changes in matter happen every day- some changes make matter look different; other changes make one kind of matter become another kind of matter. Students will explore three types of changes that occur in matter: physical change, physical phase change, and chemical change.

Weather Station Exploration:
What's the weather like? Through careful observation and studying the condition of the atmosphere, students can report and predict the weather, just like the weatherman on TV! This lesson will allow students to explore many different types of weather that are experienced all over the world, and explore how each are different.

Lessons for Grades 3-5

3D Space Exploration
Students will explore space like never before using anaglyph 3D and special 3D glasses. They will learn all about our planets, their different moons, and dwarf planets located within our solar system. Students will also discover the distances of planets from the sun, get an inside look at what creates planetary cores, and much more.

Energy is Everywhere:
Students will discover the various forms of energy and how to distinguish them from one another as well as where they can be found in the environment. They will also learn how to create different types of energy using scientific and household tools.

Florida Trail Blaze:
Students will take a hike on our Florida Trail Exhibit and engage in a scavenger hunt, exploring and recording various wildlife and plant life that can be encountered along the real trail while learning about the major animal groups, their life cycles, their impact on the environment, and how those environmental changes can affect animals and plants.

Family Science Night

Hands-on science brought into your school

We provide 15 hands-on science experiments, and you provide the adult volunteers to man them! Our two facilitators will show up an hour before the event to teach your volunteers how their experiment works and how to teach it to kids and parents.

2022-23: Human Anatomy Academy

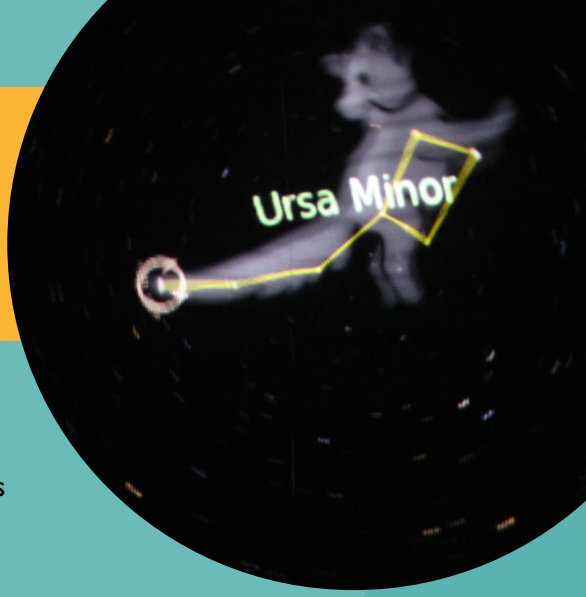
15 Different Human Anatomy Academy stations all offer various hands-on activities for children and families to enjoy together while they learn about human biology. Stations include:

- Brain
- Digestive System
- Ears & Hearing
- Bones & X-Rays
- Neurons
- Eyes & Vision
- Heart
- Spine
- Step Inside the Human Body
- Skin & Fingerprints
- Muscles & Ligaments
- Nose & Smells
- Lungs & Respiratory System
- Under the Microscope
- Personality Match

Meets NGSSS:
SC.K2.CS-CC.1.3, SC.2.N.1.5, SC.K.L.14.1, SC.4.N.1.8, SC.K2.CS-CS.2.2, SC.5.L.14.1, SC.2.L.14.1, SC.2.N.1.5, SC.6.L.14.5, SC.K.L.14.3

Full station descriptions for Human Anatomy Academy available upon request. Book your Family Science Night now! Email lisa@ecscience.org or call 850-664-1261.

Mobile Planetarium



Our planetarium is an excellent resource for all grades and ages to discover just what makes up the night sky. Shows typically run either 25 minutes or 45-50 minutes in length depending on your needs and class schedules. The planetarium is an inflatable mobile dome that can house 25-30 students at a time depending on the grade level. We can also provide virtual planetarium shows for up to 100 devices that include live Q&A time with our educators after the show.

Custom Lessons (K-12)
Available for any grade level upon request for an additional fee and must be planned at least 4 weeks in advance.

Our Planetarium is Powered by

FPL

Standards-Based Lessons

Mobile Planetarium Lesson Grades K-5

DISCIPLINE: Space

Students have the opportunity to travel through space and learn all about our solar system. They will discover the planets, moons, dwarf planets, and constellations that call the Milky Way Galaxy home.

Meets NGSSS:
SC.K.E.5.2, SC.K.E.5.3, SC.K.E.5.4, SC.K.E.5.6, SC.1.E.5.1, SC.1.E.5.3, SC.2.E.6.1, SC.2.E.7.2, SC.3.E.5.1, SC.3.E.5.2, SC.3.E.5.3, SC.3.E.5.5, SC.3.E.6.1, SC.4.E.5.1, SC.4.E.5.2, SC.4.E.5.3, SC.4.E.5.4, SC.5.E.5.1, SC.5.E.5.2, & SC.5.E.5.3

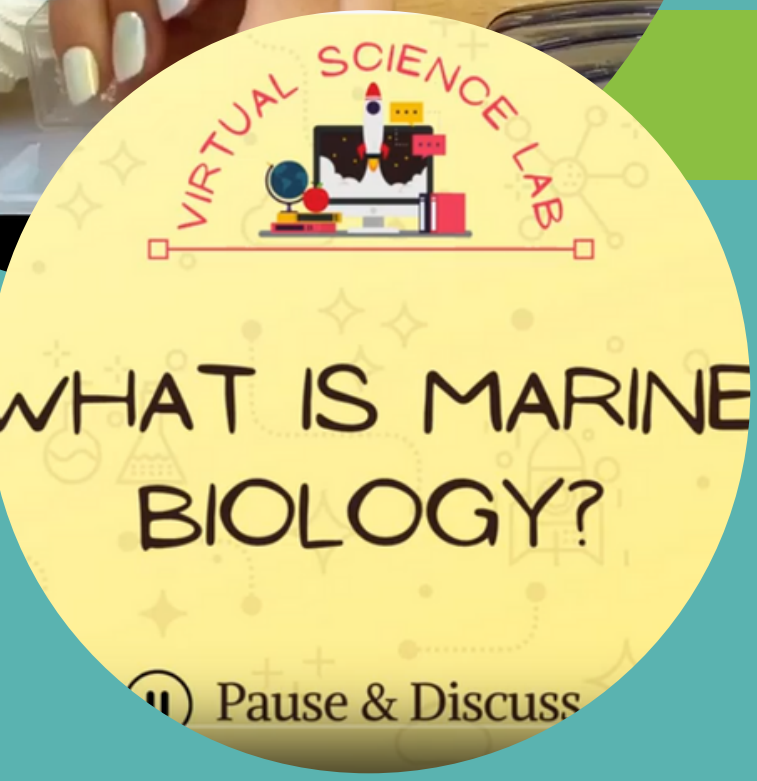
To book your Mobile Planetarium:
Email lisa@ecscience.org or call 850-664-1261 with your preferred date and two alternate dates.

Virtual Science Lab

With our Virtual Science Lab, students in grades 4-8 can explore a different subject every month. Our standards-based lessons include four weeks of programming for each topic listed below.

All lessons are prerecorded and will be released in full for each topic, so you'll receive videos for weeks one through four after you've selected your topic.

Week one includes a prerecorded video lesson and a brief Science Snap: a subject-based experiment to carry out at home or in the classroom. The video focuses on introducing the topic for that month and provides a hands-on activity to complete at home or in the classroom, and the Science Snap is an additional brief 6-8 minute video lesson. In week two, students will be able to participate in a second Science Snap. During week three, students can expect a third Science Snap that dives into exploring different career fields related to the subject. In the final week, our Science Snap will allow an expert in one of these career fields to explain the science behind their job in a brief video.



Subjects:

Each month will provide in-depth exploration about a different field of science. This includes lessons, activities, studying career pathways, and the chance to hear from an expert in the field describe their work. See our subject options below!

Marine Biology
Chemistry
Paleontology
Zoology
Mechanical Engineering
Robotic Engineering
Microbiology
Space/Astronomy
Geology
Acoustic Technology/Sound Engineering

Book your Virtual Science Lab now! Email lisa@ecscience.org or call 850-664-1261.