



## WINTER / SPRING 2024 HOMESCHOOL CLASSES

STEMLab – Miromar Outlets Suite 192  
10801 Corkscrew Road | Estero, FL 33928

### January: Art & Science

- January 10: Color and Light
  - Learn the science of color and discover how Isaac Newton used light and prisms to identify the colors of the rainbow. Conduct experiments to investigate how light is refracted, get a chance to make your own suncatcher, discover how other animals see color, and more!
- January 24: Patterns in Nature
  - Why do flower petals arrange themselves so symmetrically and a fork of lighting remind us so much of the structure of a tree? Are such things just a coincidence, a simple trick of nature? Or is there something deeper at play? Patterns can be observed everywhere in nature – investigate the mathematical relationships in growth patterns of plants, animal horns, and mollusk shells.

### February: Gizmos & Gadgets

- February 14: Flying Machines
  - Investigate planes, helicopters, gliders and more. Learn the principles of flight and investigate how Bernoulli's principle keeps planes in the sky. Make paper airplanes and helicopters, take turns launching different kinds of gliders, and discover the different forces that affect flight.
- February 28: Inventions
  - Wheels. Lightbulbs. Telephones. What do these things have in common? All of these inventions changed the world! Discover some of the world's most iconic and important inventions throughout history. Learn about some of the most famous inventors and how their contributions to society have changed the way the world works.

### March: Natural Science

- March 13: Geology
  - Explore the wonders of the Earth by investigating rocks, minerals, and geological processes. Learn about the geologic time scale, tectonic plates, volcanoes, and more. Discover what a cartographer does, make your own seismograph, and use modeling clay to explore earth's layers.
- March 27: Meteorology
  - What makes thunder? Why does it rain? How are clouds formed? Become a junior meteorologist for the day and learn all about weather patterns, the water cycle, and more. Make your own anemometer to measure wind speed, create a tornado in a jar, and design your very own rain gauge.

## **April: Earth Ambassadors**

- April 10: Sustainability
  - Our planet is very important – it's our home! So, it's very important that we take good care of it. Investigate the basics of sustainability – learn about the recycling process, water conservation, and the importance of biodiversity. More importantly, we will look at methods that each of us can take to reduce our carbon footprint and be a better advocate for our planet.
- April 24: Invasive Animals
  - Non-native animals are animals found in areas that they don't naturally live. Some of these animals can cause damage to their environment by outcompeting native species or by changing the habitat in which they live. Florida has many invasive species – get to know some of them and learn how they affect the environment.

## **May: Food Webs**

- May 8: Decomposers
  - What do you think would happen if you left old food sitting out? Would it be the same in a week? Decomposers are living things that break down dead plants, animals, or waste – they play a crucial role in keeping the earth clean! Decomposers are the final links in the food chain. Learn all about fungus and other decomposers and investigate how living and once-living materials decompose to become part of soil.
- May 22: Predators
  - Take a look at sharks, big cats, snakes, and other predators and discover the features they have that keep them at the top of the food chain. Learn the importance of apex and how they keep ecosystems in balance. Meet our corn snake Beaker up close and learn how snakes and other predators are uniquely adapted to catch their prey!