

East Tennessee Discovery Center Outreach Program Guide 5th Grade

Scheduling Your Outreach!

Call 865-594-1494 to schedule your outreach.

Please provide the following information:

1. Name of school and school phone number.
2. Teacher contact name and e-mail address.
3. Grade level, number of classes, number of students per class.
4. Time programs may begin, lunch schedule.
5. Name of program & month requested.

Starlab Outreach Programs

Starlab is a portable, inflatable planetarium that brings the nighttime sky to your school. The sky is projected on the inside of an inflatable dome where students investigate the stars and constellations. **The portable planetarium requires 22x22 feet of floor space and an 11-foot ceiling.** The ideal class size for Starlab is 20, but it can hold a maximum of 25 3rd - 6th graders.

Meeting Your Curriculum!

Every Discovery Center program is aligned with and reinforces the grade level expectations set by the Tennessee Department of Education. Included is a list of programs and the state science curriculum grade level expectations they meet.

Health programs meet the standards set by the Knox County Board of Education Health and Wellness curriculum.

Bats, the Flying Mammals

Learn the what, when, where, why and how of bats! Do they really sleep upside down? Are they really as bad as many people seem to think? Separate bat facts from fiction as you discover the truth about these winged mammals.

- 7.2.1 Investigate different nutritional relationships among organisms in an ecosystem.
- 7.2.2 Explain how organisms interact through symbiotic, commensal, and parasitic relationships.
- 7.2.3 Establish the connections between human activities and natural disasters and their impact on the environment.
- 7.5.1 Investigate physical characteristics associated with different groups of animals.

Full of Energy

Kids love sports and this action-packed, sports-themed program will get them interested in science as well! Potential and kinetic energy as well as gravity, friction and force are huge components of this program. Students will use a variety of sports equipment to learn about Newton's Three Laws of Motion.

- 7.10.1 Design an experiment to illustrate the difference between potential and kinetic energy.
- 7.11.1 Design an investigation, collect data and draw conclusions about the relationship among mass, force, and distance traveled.
- 7.12.1 Recognize that the earth attracts objects without directly touching them.

Farming for Fuels

Describe and demonstrate through hands-on activities, alternative energy sources with emphasis on biofuels made from non-food plants, that are appropriate sources for transportation and reduce the amount of carbon dioxide that our present use of fossil fuels introduce into the atmosphere.

- 7.Inq.1 Explore different scientific phenomena by asking questions, making logical predictions, planning investigations, and recording data.
- 7.Inq.2 Select and use appropriate tools and simple equipment to conduct an investigation.
- 7.T/E.1 Describe how tools, technology, and inventions help to answer questions and solve problems.
- 7.T/E.2 Recognize that new tools, technology, and inventions are always being developed.
- 7.T/E.4 Recognize the connection between scientific advances, new knowledge, and the availability of new tools and technologies.
- 7.1.1 Distinguish between the basic structures and functions of plant and animal cells.
- 7.2.1 Investigate different nutritional relationships among organisms in an ecosystem.
- 7.3.1 Demonstrate how all living things rely on the process of photosynthesis to obtain energy.
- 7.11.1 Design an investigation, collect data and draw conclusions about the relationship among mass, force, and distance traveled.

Earth, an Ever-changing Canvas

Learn about the significant geological events, such as, “plate movement”, “volcanoes”, “faults” and the role they have and do play in shaping the landscape of our world.

7.7.1 Compare geologic events responsible for the earth’s major geological features.

Dental Health

Did you know that bacteria live in your mouth? How does it affect your health? The importance of proper tooth brushing techniques are emphasized as the means to prevent cavities, gum disease and tooth loss.

The student will understand:

1. the role of personal health (hygiene) practices as it relates to their total wellness.
2. the role of body systems as related to healthful living.
4. the relationship of nutrition to healthful living.
7. the need and process of setting personal goals and standards for healthful living.
10. attitudes and behaviors for preventing and controlling disease.

You Are What You Eat

A mystery bag of foods and the Food Pyramid game will teach students how to create a balanced meal. Learn about the digestive system, how to “burn” calories and the importance of reading “nutrition labels”. “Fat models” will allow children to feel how extra weight affects their movement. Fast food healthy choices are emphasized along with some ways to make exercise “fun”.

The student will understand:

2. the role of body systems as related to healthful living.
3. the relationship of physical activity as it relates to healthful living.
4. the relationship of nutrition to healthful living.
7. the need and process of setting personal goals and standards for healthful living.
10. attitudes and behaviors for preventing and controlling disease.

Starlab Seasons of the Stars

Students will learn to identify the “Big Dipper” and use it to locate other constellations. View and learn about some constellations visible during each of the four major seasons of the year. Long standing “myths” associated with the constellations will be shared. Content will correlate with grade level expectations.

7.6.2 Recognize that charts can be used to locate and identify star patterns.

Starlab Multicultural Mythologies

The most widely known stories, or “myths” as they are often referred to, about the constellations are based on the Greek’s interpretation of star patterns. Student will be fascinated to hear the many different stories from other cultures around the world and how they explained the constellations to their peoples. Content will correlate with grade level expectations.

7.6.2 Recognize that charts can be used to locate and identify star patterns.

Starlab Starry Skies

Students learn to locate constellations and get tips on how to identify each constellation in the proper season. Stories about stars and constellations give clues to their names and locations.

7.6.2 Recognize that charts can be used to locate and identify star patterns.