



Dive into the Ocean 2015

Tennessee 4-6th grades

Dive into the Ocean, Inc is a 501c3 non-profit organization, focused on providing students access to the ocean sciences. We offer shows for large assembly and classroom groups specifically tailored toward Tennessee 4th-6th grade students and based around the science ocean GLEs. The fun and entertaining shows provide real-life examples of science concepts through storytelling and hands-on activities. In the classroom lessons, students will also collect data using real scientific tools, analyze their results, and present their conclusions to the group.

Dr. Leslie has a PhD in Oceanography. When she is not visiting schools, she can be found on a research vessel, analyzing oceanographic data, or communicating scientific research results to the public. Dr. Leslie has been diving into the ocean with student groups in Virginia and Tennessee since 2011.

Large Assembly with Demonstration: 1-hr; \$150

A lively, interactive discussion about the ocean sciences presenting science curriculum through the adventures of Dr Leslie and her oceanographic colleagues. The assembly will culminate in a hands-on, inquiry based demonstration of real oceanographic tools to analyze water samples and compare them to near-real time ocean data.

Classroom Lesson with Small Group Activity (up to 50 students): 2 hours, \$300*

The same great adventures from the large assembly combined with small group based hands-on science experiments. Each group will receive a unique water sample. They will use oceanography tools and the information they learned in the presentation to "Dive In" and answer questions about their water sample.

***Note:** multiple classroom lessons may be booked for the same day or consecutive days at \$250/ lesson

Girls In Science Assembly: 45 min; \$100

Perfect for Girl Scouts, or other girl centered after-school clubs, this assembly talks about how Dr. Leslie chose to become a scientist and empowers girls to focus on math and science to realize their career dreams.



Tennessee 4-6th Grade Curriculum GLEs

4th Grade Standards Addressed:

- 7.1.1: Recognize that cells are the building blocks of all living things.
- 7.2.1: Analyze the effects of changes in the environment on the stability of an ecosystem.
- 7.3.1: Demonstrate that plants require light energy to grow and survive.
- 7.5.1: Analyze physical and behavioral adaptations that enable organisms to survive in their environment.
- 7.8.1: Recognize the major components of the water cycle.
- 7.9.2: Explore different types of physical changes in matter.

5th Grade Standards Addressed:

- 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.
- 7.2.3: Establish the connections between human activities and natural disasters and their impact on the environment.
- 7.3.1: Discuss photosynthesis and how all living things rely on this process to obtain energy.
- 7.5.2: Analyze fossils to demonstrate the connection between organisms and environments that existed in the past and those that currently exist.
- 7.5.1: Investigate physical characteristics associated with different groups of organisms.
- 7.8.1: Analyze & predict how major landforms & bodies of water affect atmospheric conditions.
- 7.9.1: Observe and measure the simple chemical properties of common substances.
- 7.9.2: Design and conduct an experiment to demonstrate how various types of matter freeze, melt, or evaporate.
- 7.9.3: Investigate factors that affect the rate at which various materials freeze, melt, or evaporate.
- 7.12.1: Recognize that the earth attracts objects without directly touching them.
- 7.12.3: Provide examples of how forces can act at a distance.

6th Grade Standards Addressed:

- 7.2.1: Examine the roles of consumers, producers, and decomposers in a biological community.
- 7.2.2: Describe how matter and energy move through an ecosystem.
- 7.2.3: Draw conclusions from data about interactions between the biotic and abiotic elements of a particular environment.
- 7.8.2: Investigate the relationship between currents and oceanic temperature differences.