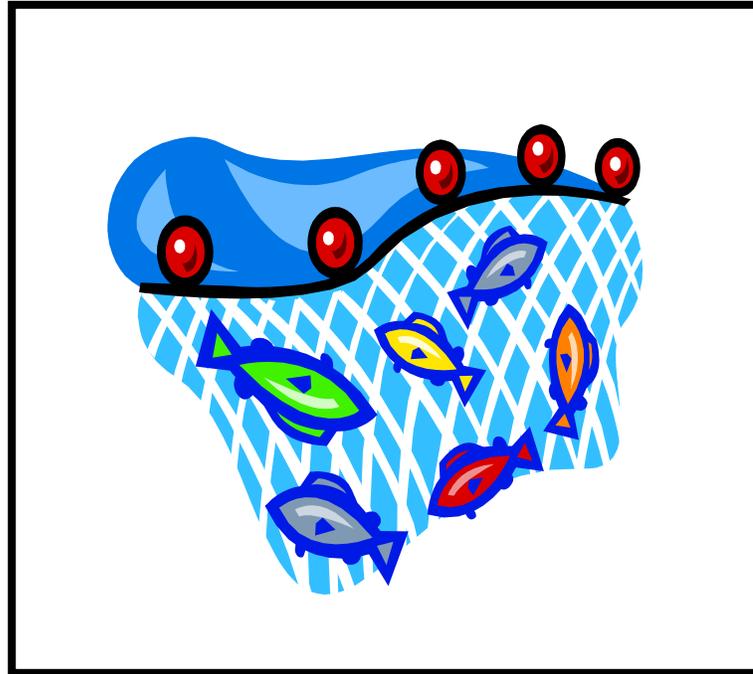




Seining

2018 - Driftwood Education Center



Class Description:

Students will learn how to use a 30-foot seine net to sample the ocean's rich abundance of life. Several fish species, crabs, and shrimp are commonly caught, as well as squid, jellyfish, and the elusive sea cucumber. We discuss adaptations and behaviors of creatures that we catch. Be prepared to get wet and have fun!

Appropriate for all grade levels including High School Students.

NOTE: You must take at least 3 hours of consecutive Beach classes. There will be no single, 1.5 hour classes offered at the beach. Please review and pick beach classes that Driftwood offers.

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Seining

Table of contents and outline:

I. Pre-class set-up (10 min.)

1. Gather nets, buckets, rescue cans, and an aerator.
2. Load all the materials in the bus or van.

II. Introduction, overview, and assessment (10 min.)

1. Give beach rules and expectations.
2. Hypothesize about what organisms students may catch in their nets.
3. Discuss phyla and/or adaptations of organisms.

III. Seining (1 hr. 10 min)

1. Why people seine. Explanation of how to seine.
3. Go seining and discuss organisms caught.
5. Free water time.

Concepts 1-4, Outcomes 1-3

IV. Discussion of Adaptations of Organisms Caught

1. Start after the first drag is brought in.
2. Begin discussing general adaptations and work into more detailed.
3. Cover adaptations after each drag.

Concepts 2-4, Outcomes 2, 3

V. Conclusion and Wrap Up (10 min.)

1. Have a general discussion about what organisms were caught today, review the class.

VI. Clean Up

1. Collect all equipment. Load into van/bus.
2. Rinse out nets and buckets.
3. Acclimation of any animals brought back

VII. Additional Information

1. Tips and techniques on how to seine.

Georgia Performance Standards met:

5th Grade:

S5L2. Obtain, evaluate, and communicate information showing that some characteristics of organisms are inherited and other characteristics are acquired.

7th Grade:

S7CS7. Students will question scientific claims and arguments effectively.

S7L1. Obtain, evaluate, and communicate information to investigate the diversity of living organisms and how they can be compared scientifically.

Concepts:

Focal points of this class are:

1. Seining can be an important tool to scientists and fishermen.
2. Classifying and identifying is a key step to understanding organisms.
3. Adaptations help organisms survive and be successful in their environment.
4. The more diverse an ecosystem the easier it is for the ecosystem to carry on after major change.

Outcomes:

Upon completion of this class, students will be able to:

1. Explain what a seine net is and how to use one.
2. Classify organisms into Kingdoms and determine whether they are vertebrates or invertebrates.
3. List adaptations and identify ocean dwelling organisms.

South Carolina Standards met:

4th Grade:

4.L.5B.3 Construct explanations for how structural adaptations (such as methods for defense, locomotion, obtaining resources, or camouflage) allow animals to survive in the environment.

5th Grade:

5.L.4B.4 Construct scientific arguments to explain how limiting factors (including food, water, space, and shelter) or a newly introduced organism can affect an ecosystem.

7th Grade:

7.EC.5A.1 Develop and use models to describe the characteristics of the levels of organization within ecosystems (including species, populations, communities, ecosystems, and biomes).

Next Generation Science Standards met:

MS-LS1-5 Construct a scientific explanation based on evidence for how environmental and genetic factors influence the growth of organisms.

MS-LS2-1. Analyze and interpret data to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem.

MS-LS2-3 Develop a model to describe the cycling of matter and flow of energy among living and nonliving parts of an ecosystem.

3-LS4-3 Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.

MS-ESS3-4 Construct an argument supported by evidence for how increases in human population and per-capita consumption of natural resources impact Earth's systems.

Florida Standards met:

5th Grade:

5.L.15.1 Describe how, when the environment changes, differences between individuals allow some plants and animals to survive and reproduce while others die or move to new locations.

6th Grade:

6.N.1.5 Recognize that science involves creativity, not just in designing experiments, but also in creating explanations that fit evidence.