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Ping Pong Vocabulary

5Es Lesson by Sandie Nichols

National Science Standards

Content Standard: Level 5-8

Life Science

- > Populations and ecosystems
- > Regulation and behavior

Unifying Concepts and Processes

- > Change, constancy, and measurement
- > Evolution and equilibrium

Background

In South Carolina, loggerhead sea turtles lay about 120 eggs per nest. The female turtle digs out the pear-shaped nest cavity with her hind flippers. A loggerhead egg is roughly the same size and shape as a ping-pong ball, and they are leathery and pliable, unlike bird eggs.

The purpose of this activity is to help the students visualize an actual nest of eggs and to help familiarize them with the vocabulary words they have been introduced to throughout the unit.

Materials

100 ping-pong balls (30 labeled with vocabulary words)

8 clear plastic containers

1- 5gallon bucket

Some suggested vocabulary words:

plastron	carapace	scutes	in situ	foraging
juvenile	hatchling	emergence	threats	pivotal temperature
caruncle	incubation	sargassum	parental care	natal imprinting
temperature-dependent sex determination				

*vocabulary words can be duplicated

Activity

ENGAGE Present a clear container of about 15 ping-pong balls to each group of four students. Explain that these balls are similar in size and shape to sea turtle eggs. Explain that actual eggs are rubbery rather than stiff. Allow students to manipulate the eggs.

EXPLORE Ask the students to estimate the size of a sea turtle nest, or clutch, that contains about 120 eggs. Ask the students to decide what type of container that they are familiar with that could hold a complete nest or clutch.

EXPLICATE After discussing the estimates, combine all eight containers into the 5gallon bucket and visualize the size of an actual nest.

ELABORATE Calculate the volume of the nest (length x width x height) in cubic centimeters, and discuss how to calculate volume in containers with different shapes (e.g., cylinder and cube).

EVALUATE Ask each student to choose a labeled ping-pong ball from the bucket. Ask each student to write a paragraph or poem using all the vocabulary words chosen by their group.