

Nesting Analysis

Objective

The students will use their math skills to analyze sea turtle nesting data.

Materials

- pencils
- copies of the **Nesting Analysis** worksheet

Background

A reserve is place set aside for wildlife and protected from human disturbance. Some reserves are completely natural and some have wildlife viewing areas and education centers. Reserves provide a refuge for animal living and reproduction.

In 1991, the U.S. Congress established the Archie Carr National Wildlife Refuge on the east coast of Florida. This refuge consists of around 900 acres. A 20.5 mile stretch between Melbourne Beach and Wabasso Beach is a critical habitat for nesting sea turtles.

This short stretch of beachfront property is the most important nesting site for loggerhead sea turtles in the entire Western Hemisphere. The refuge is also the most important nesting beach in the United States for the green sea turtle. Since the refuge is also considered prime real estate for commercial development, government funding was essential to its preservation.

Action

1. Provide each student with a copy of the Wildlife Reserve worksheet.
2. Have students fill out the missing information on the chart and answer the questions.
3. Discuss results.

Deeper Depths

Look at a map of the world. Sea turtles like warm water and sandy beaches. Where else in the world would there be good nesting areas for sea turtles? Then do some research and find out if you're right! What types of sea turtles nest in those areas? Are they in need of protection too?

Look at a map of Florida, can you find Florida's nesting beaches?

Nesting Analysis

Use your math skills to fill in the blanks in this chart of sea turtle nesting data. Then answer the questions below.

	Total Nests in Canaveral National Seashore	Total Nests in Archie Carr National Wildlife Refuge	Number of Nests on other Florida Beaches	Total All Florida Sea Turtle Nests
Loggerhead	3,789	27,489		61,294
Green	405	2,359		4,385
Leatherback	6	13		130
Total				

U.S. Sea Turtle Nest totals -- 71,000 nests per year

1. What species of sea turtle nests in Florida the most often?
2. What percentage of Florida's Loggerhead Sea Turtle nests occur at the Canaveral National Seashore?

What about Green Sea Turtles?

And the Leatherback Sea Turtle?

3. What percentage of Florida's Loggerhead Sea Turtle nests occur at the Archie Carr National Wildlife Refuge?

What about Green Sea Turtles?

And the Leatherback Sea Turtle?

4. Loggerhead Sea Turtle nesting in Florida accounts for about what percentage of all the sea turtle nests in the United States?
5. The beaches of Florida account for about what percentage of all the sea turtle nests in the United States?

Nesting Analysis

Answer Key

Use your math skills to fill in the blanks in this chart of sea turtle nesting data. Then answer the questions below.

	Total Nests in Canaveral National Seashore	Total Nests in Archie Carr National Wildlife Refuge	Number of Nests on other Florida Beaches	Total All Florida Sea Turtle Nests
Loggerhead	3,789	27,489	30,046	61,294
Green	405	2,359	1,621	4,385
Leatherback	6	13	111	130
Total	4,200	29,831	31,778	65,809

U.S. Sea Turtle Nest totals -- 71,000 nests per year

1. What species of sea turtle nests in Florida the most often? **Loggerheads -- 61,294**
2. What percentage of Florida's Loggerhead Sea Turtle nests occur at the Canaveral National Seashore? **$3789/61,294 = 6\%$**

What about Green Sea Turtles? **$405/4,385 = 9\%$**

And the Leatherback Sea Turtle? **$6/130 = 5\%$**

3. What percentage of Florida's Loggerhead Sea Turtle nests occur at the Archie Carr National Wildlife Refuge? **$27,459/61,294 = 45\%$**

What about Green Sea Turtles? **$2,359/4,385 = 54\%$**

And the Leatherback Sea Turtle? **$13/130 = 10\%$**

4. Loggerhead Sea Turtle nesting in Florida accounts for about what percentage of all the sea turtle nests in the United States? **$61,294/71,000 = 86\%$**
5. The beaches of Florida account for about what percentage of all the sea turtle nests in the United States? **$65,809/71,000 = 93\%$**