

Unit I
Chapter 2--
Marine Scientists at Work



Performance Standards

Demonstrate understanding of the process scientists use in their work.

- SC.H.1.4.1 Know that investigations are conducted to explore new phenomena, to check on previous results, to test how well a theory predicts, and to compare different theories.
- SC.H.1.4.2 Know that from time-to-time, major shifts occur in the scientific view of how the world works, but that more often, the changes that take place in the body of scientific knowledge are small modifications of prior knowledge.
- SC.H.1.4.3 Understand that no matter how well one theory fits observations, a new theory might fit them as well or better, or might fit a wider range of observations, because in science, the testing, revising, and occasional disregarding of theories, new and old, never ends and leads to an increasing better understanding of how things work in the world, but not to absolute truth.

Scientists working in the field and in laboratories make discoveries in marine science

STUDENT INSTRUCTIONS

1. Read Chapter 2, pages 26-51 in your text and
 - a. write the definitions, or...
 - b. draw a picture, or...
 - c. diagram an explanation for each of the 20 vocabulary words on p. 54.
2. After reading the chapter, complete the **Fill In** questions (1-10) on page 54 and the **Multiple Choice** questions (14-20) on page 55.
3. Complete the extended response question on the following page.

READ
THINK
EXPLAIN

4. Answer question 12 on page 54 using the FCAT short answer response.
5. Complete Lab Investigation “Measuring Snail Speed.”
6. Turn in all completed work and ask your instructor for the Chapter 2 Test.

Lab Investigation: *Measuring Snail Speed*

Problem: How fast (or slow!) is a marine snail?

Skills: Calculating rate of movement

Procedures:

1. Using the data supplied in **Table 2.1 measuring the speed of a marine snail**, compute the speed for each trial “run” of the snail by using the following formula:
$$\text{Speed} = \text{Distance (mm)} / \text{Time (min)}$$
2. Calculate the average rate of speed by totaling the figures and dividing by the number of trials.

Table 2.1- Measuring the Speed of a Marine Snail

Trial Number	Distance (mm)	Time (min)	Speed (mm/min)
1	3	1	
2	4	2	
3	5	3	
4	2	1	
5	3	2	
6	2	1	
Total			
Average			

Observations and Analyses

1. Why is it preferable to run six trials rather than just one trail in this type of experiment?
2. Name one adaptive feature that helps the snail compensate for its slowness.