

Scientific Method: Bikini Bottom Experiments

Name _____

Date: - _____ Period: _____

The Bikini Bottom gang loves science class and wanted to do a little research. Read the description for each experiment and use your knowledge of the scientific method to answer the questions.

(1) Flower Power

SpongeBob loves to garden and wants to grow lots of pink flowers for his pal Sandy. He bought a special Flower Power fertilizer to see if will help plants produce more flowers. He plants two plants of the same size in separate containers with the same amount of potting soil. He places one plant in a sunny window and waters it every day with fertilized water. He places the other plant on a shelf in a closet and waters it with plain water every other day.

- A. What did SpongeBob do wrong in this experiment? Explain.

- B. What should SpongeBob do to test the effectiveness of Flower Power fertilizer? Write an experiment.

(2) Super Snails

Gary is not the smartest snail in Bikini Bottom and believes he can improve his brain power by eating Super Snail Snacks. In order to test this hypothesis, he recruits SpongeBob and several snail friends to help him with the experiment. The snails ate one snack with each meal every day for three weeks. SpongeBob created a test and gave it to the snails before they started eating the snacks as well as after three weeks.

Test Results		
Snail	Before	After
Gary	64%	80%
Larry	78%	78%
Barry	82%	84%
Terry	72%	70%

- A. Based on the data provided, do the Super Snail Snacks work? Explain your answer.

3 – Slimotosis

Sponge Bob notices that his pal Gary is suffering from slimotosis, which occurs when the shell develops a nasty slime and gives off a horrible odor. His friend Patrick tells him that rubbing seaweed on the shell is the perfect cure, while Sandy says that drinking Dr. Kelp will be a better cure. Sponge Bob decides to test this cure by rubbing Gary with seaweed for 1 week and having him drink Dr. Kelp. After a week of treatment, the slime is gone and Gary’s shell smells better.

- A. What was the initial observation?
- B. What is the independent variable?
- C. What is the dependent variable?
- D. What should Sponge Bob’s conclusion be?