**Scientific Method** Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Bikini Bottom Experiments**

**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.

What did SpongeBob do wrong in this experiment? Explain.

What should SpongeBob do to test the effectiveness of Flower Power fertilizer? Describe how he should test the effectiveness of Flower Power fertilizer.

**(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.

2a. Based on the data provided (on the next page), do the Super Snail Snacks work? Explain your answer.

**2b.** Discuss 2 validity issues with the Super Snail Snack experiment

**(3) Bubble Time**

Patrick loves bubble gum and would like to be able to blow bigger bubbles than anyone else in

Bikini Bottom. To prepare for the Bikini Bottom Big Bubble Contest, he bought five different brands of bubble gum and needs your help to find the brand that creates the biggest bubbles. Write an experiment to test the bubble power of the bubble gum brands and help Patrick win the contest. (continue your answer on a separate sheet of paper)