

## Objective

### *Understand the Nature of Science*

- *Understand that science investigations use a variety of methods and do not always use the same set of procedures; understand that there is not just one "scientific method."*
- *Science findings are based upon evidence.*

- Clean-O best cleans his pants.
- Plain water best cleans his pants.
- Cold water best cleans his pants.
- Clean-O is not effective cleaning his pants.

## *Squidward's Symphony*

Squidward loves playing his clarinet and believes it attracts more jellyfish than any other instrument he has played. In order to test his hypothesis, Squidward played a song on his clarinet for a total of 5 minutes and counted the number of jellyfish he saw in his front yard. He played the song a total of three times on his clarinet and repeated the experiment using a flute and a guitar. He also recorded the number of jellyfish he observed when he was not playing an instrument. The results are shown in the chart.

<i>Number of Jellyfish/Instrument</i>				
<i>Trial</i>	<i>No Music</i>	<i>Clarinet</i>	<i>Flute</i>	<i>Guitar</i>
1	5	15	5	12
2	3	10	8	18
3	2	12	9	7

7. What is the variable?

- Number of jellyfish.
- Instrument.
- Length the music was played.
- The song he played.

8. What should Squidward's conclusion be?

- The clarinet and guitar attracted the same number of jellyfish.
- The flute attracted more fish than the control (no music).
- Music attracts more jellyfish than does no music.
- All of the above.

## *Super Bubbles*

Patrick and SpongeBob love to blow bubbles! Patrick found some Super Bubble Soap at Sail-Mart. The ads claim that Super Bubble Soap will produce bubbles that are twice as big as bubbles made with regular bubble soap. Patrick and SpongeBob made up two samples of bubble solution. One sample was made with 5 oz. of Super Bubble Soap and 5 oz. of water, while the other was made with the same amount of water and 5 oz. of regular

## Objective

### Understand the Nature of Science

- Understand that science investigations use a variety of methods and do not always use the same set of procedures; understand that there is not just one "scientific method."
- Science findings are based upon evidence.

bubble soap. Patrick and SpongeBob used their favorite bubble wands to blow 10 different bubbles and did their best to measure the diameter of each one. The results are shown in the chart

<b>Bubbles (Diameter in centimeters)</b>		
<b>Bubble</b>	<b>Super Bubble</b>	<b>Regular Soap</b>
1	15	10
2	10	5
3	12	16
4	18	14
5	22	11
6	13	12
7	16	11
8	18	15
9	15	15
10	12	6

9. What did the Super Bubble ads claim?

- Super Bubble produces bubbles twice as large as regular bubble soap.
- Super Bubble makes twice as many bubbles as regular bubble soap.
- Super Bubble bubbles last twice as long as bubbles made using regular bubble soap.
- Super Bubble is cheaper than regular bubble soap.

10. What is the variable?

- Bubble size.
- Number of bubbles made.
- Length of time bubbles last.
- Type of bubble solution.

11. What should their conclusion be?

- Super Bubble solution did not produce bubbles twice as large as those made