

### Scientific Method Review

1. Number the steps of the scientific method in order from 1-6.

- 4 Observe/Analyze/Collect Data
- 1 Question/Problem
- 2 Hypothesis
- 3 Experiment
- 4 Conclusion
- 5 Results

**\* Use your ISN to fill out!**

2. Circle the questions that are good questions for the scientific method

- a Can horses run fast?
- b Which will mold faster, bread left in the sun, or bread left in the shade?
- c Does the amount of salt affect the rate of food rot?
- d Why does a car run on gas?

Write a hypothesis for the following question in the correct format. **(If, then)**

3. How does the amount of salt on fries affect the sales of the fries?

Hypothesis:

If there is more salt on fries, then the sales of fries will increase.

If there is more salt on fries, then the sales of fries will decrease.

If there is less salt on fries, then the sales of fries will decrease.

4. Read the following experiment. Determine (figure out) the controls and variables.

Sam is experimenting with what helps his plants grow more flowers. He is testing them both in the sun. One plant will be treated with water, while he is testing the other plant with chocolate milk, because it is filled with vitamins.

(same, usual, normal, regular) what are the controls? SUN and water (what is normal)

What is the variable? chocolate milk  
(different, new, being tested)

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5. Mr. Smithie thinks that a special juice will increase the amount of work completed by his workers. He makes two groups of workers; 50 in group A, 50 in group B. Both groups are given the same task, which is to staple stacks of papers together. Group A is not given the special juice to drink while they work, but group B is given the special juice. After an hour, Mr. Smithie counted the stacks completed. Group A made 3,900 stacks, and Group B made 5,200 stacks.

a. What is Mr. Smithie's hypothesis? (If, then)

If workers are given special juice to drink,  
then they will increase the amount of work they complete.

b. What was the control? same task (staple stacks of paper)

c. What was the variable? special juice

d. What should Mr. Smithie's conclusion be? (Answer the following questions in your conclusion paragraph.)

1 \*Was his hypothesis correct?

2 \*What is something he could do differently next time? (Answers may vary)

Mr. Smithie's conclusion is that the special  
juice helps the workers increase the amount of  
work they do. His hypothesis was correct. One  
thing that Mr. Smithie could do differently next  
time would be to give the workers a different task  
to see if the juice still works.

Fill in the blank. Use the words in the word bank below to fill in the blank.

1. A step by step way of doing things is called a procedure

2. A method to find answers to problems is called the

scientific method

3. Someone who learns by asking questions and experimenting is called a

scientist

4. Something that has changed in the experiment that produces a

different result is called the variable

5. Information collected from observations is called data

6. When you analyze data, you look for patterns and how the data is related.

7. A constant in the experiment that you compare your results to is

called the control

8. A prediction or educated guess of what will happen is called a

hypothesis

9. A way to test what will happen is called an experiment

Word Bank

Scientist

Control

Hypothesis

Scientific method

Variable

Experiment

Analyze

Procedure

Data

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