

KJHS

Name

Scientists have some special characteristics. They are curious people. This curiosity leads to them to investigate things and events. Scientists use their senses to observe as they investigate. They think logically and open-minded. In seeking knowledge, the organized approach used by scientists is called the scientific method. List the 7 steps of the scientific method below.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____

VOCABULARY:

- a) Control (of an experiment): _____
- b) Factor: _____
- c) Hypothesis: _____
- d) Theory: _____
- e) Scientific Method: _____
- f) Variable: _____

USING THE SCIENTIFIC METHOD:

A scientist observed sea otters. He noticed that when they were fed black clams, the otter tails appeared to grow more than the otters that given regular white clams. The scientist hypothesized that the protein in the black clams was responsible for the growth. He designed an experiment to test this hypothesis. He divided 50 otters of the same age, size, health, and sex into two groups of 25 otters each. The otters were kept under identical conditions for 2 months. One group was given the black clams. The other group was given the regular white clams. The size of each otter tail was recorded daily for 2 months.

8. Which group of otters served as a control? _____
9. Which variables had to remain constant? _____
10. What effect of this clam diet was measured (tested)? _____
11. Why were large numbers of otters used in this experiment? _____
12. If the results of the experiment did not show a marked change between the two groups, what should the scientist do next? _____

On your iPad, create your own scientific experiment. Use PicCollage to explain the 7 steps that you would take to create an experiment. This is a pretend experiment but it must also be realistic. Ask a real question/hypothesis/observation. Use pretend data. Analyze your pretend data accurately, and come up with a true conclusion. Create a PicCollage representing the 7 steps. Save the PicCollage in your Camera Roll and I will do a quick scan of your pic collage next class. You will airplay and share your pic collage next class. Make a text box on tope right for your name/date/period.