



Science Virtual Learning

7th Grade Science

Review of the Scientific Method



May 19, 2020



7th Grade Science Lesson: May 19, 2020

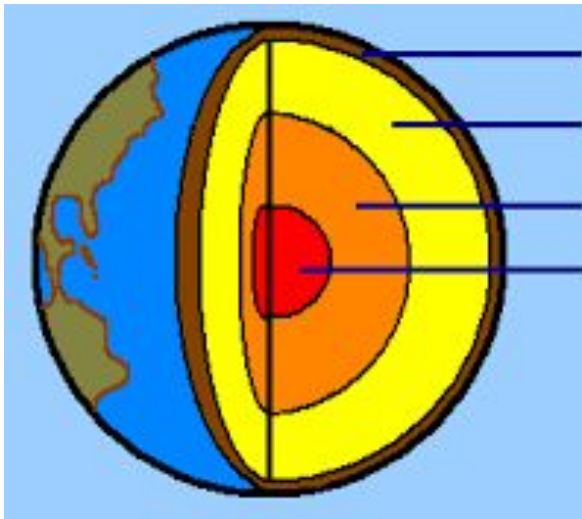
Objective/Learning Target:

I can describe the steps of the scientific method and how to apply them to solving a problem.

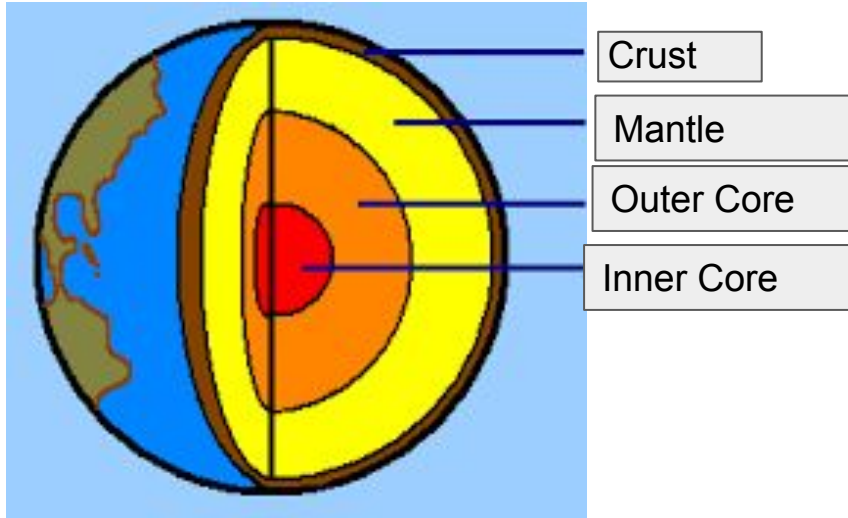
Next watch this Video Over: [The Scientific Method](#)

Bellwork -See what you remember about Convection Currents and Earth's layers from yesterday's lesson!

On your own piece of paper, draw the diagram and the layers of Earth's Interior.



Bellwork -Answer Key



Some Key Points to Remember...(Write these down on a piece of paper to use for today's practice- you may shorten or paraphrase your notes.)

- The Scientific Method involves a series of steps that are used to investigate a natural occurrence.
- Steps of the Scientific Method
 - ◆ Problem/Question
 - ◆ Observation/Research
 - ◆ Formulate a Hypothesis
 - ◆ Experiment
 - ◆ Collect and Analyze Results
 - ◆ Conclusion





→ Steps of the Scientific Method

- Ø Problem/Question-Develop a question or problem that can be solved through experimentation.
- Ø Observation/Research-Make observations and research your topic of interest.
- Ø Formulate a Hypothesis - Predict a possible answer to the problem or question.
- Ø Experiment-Develop and follow a procedure.
- Ø Collect and Analyze Results - Confirm the results by retesting.
- Ø Conclusion -Include a statement that accepts or rejects the hypothesis.
 - Make recommendations for further study and possible improvements to the procedure.



Key Points to Remember...

A scientist will design an experiment or procedure that is controlled. In a controlled experiment, you will only test 1 variable at a time.

- The independent variable or variable that is changed will be tested by the experimental group.
- The control group is left alone, so the scientist can compare the results to that group.
- The variable that determines the data and is known as “responding” is the dependent variable.



Practice (Write this down on your own piece of paper please)

True or False

If the answer is True write "T" on the line. If the answer is False, replace the underlined word or phrase with one that would make the sentence correct. Write the new words on the line.

1. _____ Forming a Hypothesis is the first step of the Scientific Method.
2. _____ In order for a hypothesis to be testable, scientists need to be able to carry out investigations that will either support or disprove it.
3. _____ The experimental group is the group that is left alone during the experiment.
4. _____ The manipulated variable is the same thing as the independent variable.

1. Problem/Question
2. I
3. Control Group
4. I



Identifying (draw this chart on your own paper):

Read through the following scenarios. Identify & Fill in the chart with the Control Group, the Experimental Group, Independent Variable and Dependent Variable

Scenario	Independent Variable	Dependent Variable	Experimental Group	Control Group
A company wants to test a new dog food that is supposed to help overweight dogs lose weight. 50 dogs are chosen to get the new food. 50 dogs continue their normal diet. After 1 month, the dogs are checked to see if they lost any weight.				
A new sunscreen has been developed that is supposed to be more effective at treating sunburn. 30 participants spray 1 arm with the new formula and spray the other arm with the leading formula. After 4 hours in the sun their skin is evaluated for redness.				

Answer Key

Scenario	Independent Variable	Dependent Variable	Experimental Group	Control Group
<p>A company wants to test a new dog food that is supposed to help overweight dogs lose weight. 50 dogs are chosen to get the new food. 50 dogs continue their normal diet. After 1 month, the dogs are checked to see if they lost any weight.</p>	<p>New dog food</p>	<p>Change in weight</p>	<p>50 dogs with new food</p>	<p>50 dogs with normal diet</p>
<p>A new sunscreen has been developed that is supposed to be more effective at treating sunburn. 30 participants spray 1 arm with the new formula and spray the other arm with the leading formula. After 4 hours in the sun their skin is evaluated for redness.</p>	<p>New Sunscreen</p>	<p>Amount of Redness</p>	<p>Arm with new sunscreen</p>	<p>Arm with leading formula sunscreen</p>

More Practice-Practice your knowledge on this Quizizz!

Scientific Method Quizizz

