

Learning Target: I can describe and explain the steps of the scientific method.



Steps of The Scientific Method Video Notes

1. The scientific method is a _____ used to _____ the unknown. It is the general process of a scientific _____ . This process uses _____

What do scientists use the scientific method for? _____

2. Why is it important that scientists use a common method such as the scientific method to answer questions? _____

3. The steps of the scientific method are:

1. Make _____
2. Identify a _____ you would like to answer, based on _____
3. Form a _____, or testable _____
4. Make a _____ based on the _____
5. Test the _____
6. Analyze your _____ and draw _____

4. What observations were made in **Step 1**? _____
What are your five senses? _____

5. What simple question can you ask based on your observation according to **Step 2**? _____

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6. **Step 3: Construct a Hypothesis or testable explanation.** A hypothesis is a _____ answer to the question, one that can somehow be _____. What could be our hypothesis in this case? _____

A hypothesis needs to be written in a way that it can do the following:

1. Be tested using _____ to collect evidence.
2. Be proven _____
3. Provide _____ results
4. Provide _____ answers

7. **Step 4: Make Predictions** – A prediction is an _____ we'd expect to see if the hypothesis is _____. What is the prediction in this case? _____

8. **Step 5: Test the predictions** – To test the hypothesis, we need to make an _____ or perform an _____ associated with the prediction. How would we test the prediction in this case? _____

9. What does it mean if the toaster toasts? _____
What does it mean if the toaster does not toast? _____

10. Why do scientists run their experiments several times? _____

11. **Step 6: Analyze your results and draw conclusions** What would we do if the hypothesis is supported? _____

What do we do if the hypothesis is not supported? _____

12. What does it mean by the scientific method is an iterative process? _____

Quick Checks for Understanding! Pause the video and take 5 to 6 minutes to write your responses.

1. Why do you think the bread won't toast? _____

2. What question would you ask based upon your observation of seeing the bread not toast? _____

3. What hypothesis would you propose? _____

4. What prediction would you make? _____

5. How would you test this prediction? _____

6. What do you think your results would be? _____