



Science 9



Course Outline 2021

Expectations



Science - a branch of knowledge requiring systematic study and method, dealing with substances, life and natural laws.

Scientist - an expert in a science

Scientific Method for Investigations

Scientists try to find patterns in things and look for explanations for the pattern. The scientific method is a way of approaching and solving a problem, or answering a question.



Here's the recipe.

- **Ask a question.**
 - **Gather information.**
 - **Form a hypothesis, propose a solution.**
 - **Test the proposed solution.**
 - **Evaluate the data. Is the hypothesis correct? Does it make sense?**
 - **Report results. Let others know.**
- Make changes. Propose a better solution.**



If your methods make sense, then others may accept your hypothesis as a theory. If not, then your hypothesis may be rejected. There is always the possibility that new observations or new information will disprove a long-standing theory.

Review Scientific Method



Has 7 steps

1) Ask a **Question** (It must be **Testable**)

-Include "Which", "Do/Does", "How", "What", "Why"?

-To find an answer you must do a test and the retest

2) Make a **Hypothesis** - Write what you think you will find out, and why you think this.(or what you think the answer will be). Is there a way to test your hypothesis.

-You now have to design an experiment to test your hypothesis

3) **Design an Experiment** - what are you going to do to test your hypothesis. Here you must state the variables. (SEE NEXT PAGE)

4) **List Materials** - list all the materials that you will use in the investigation

5) **Procedure** - Carry out the investigation and make a detailed list of steps in which you followed .

6) **Results/observations** - Record what you observed when you carried out the investigation/procedures


7a) **Conclusion** - From what you observed how would you answer your original question. Was your hypothesis correct? Give reasons of why or why not.

Once you have completed the scientific method you must:

7b) **-Communicate** your results and conclusions with others

- If possible, **relate** what you have learned to the world outside the classroom.



 e discovery of penicillin (1964)

Discovery of Penicillian (Sharing Information)



100 Years Ago, a Miracle Drug Saved Millions of Children—and Created a Powerful Myth

83,890 views • Jan 29, 2018

1.6K 45 SHARE SAVE ...

<https://www.youtube.com/watch?v=O9Ixht8D9HI>



The Quest

36 min black and white

<https://www.youtube.com/watch?v=JA7jVqYOf2k>



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Attachments

Natural Science 9 Course Outline 2018 (Semester 2).pdf

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