Scientific Method

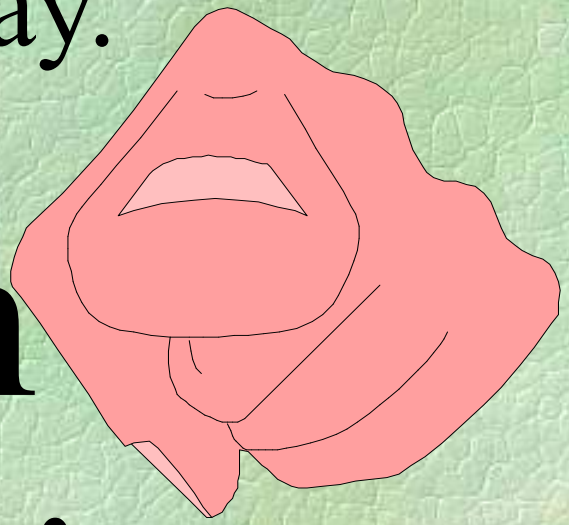
Who uses it?

What is it?

Why should I care?

Everyone uses it everyday.

Yes. Even You!!!!!!!!!!

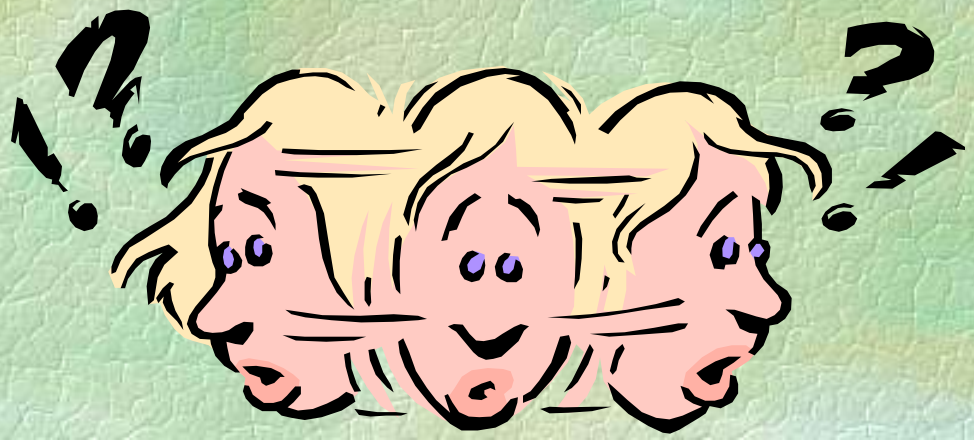


It is a way to solve problems. Do you have any problems to solve?

- Any **big** or any small ones?

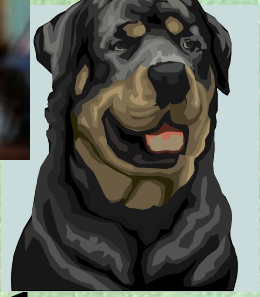
Any of these sound familiar?

- Where are my shoes?
- What should I have for lunch?
- What classes should I take?
- Which deodorant works the longest?
- What is the cure for cancer?





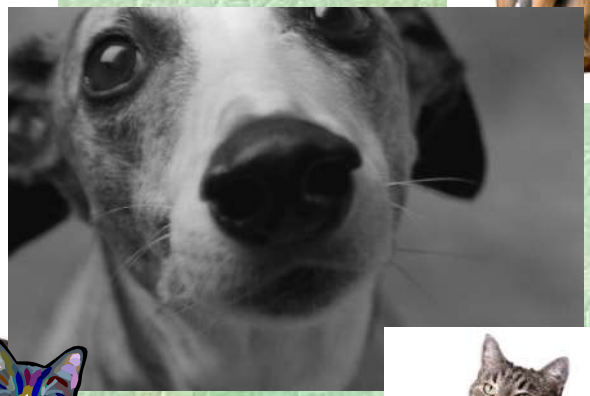


Ann Has Twenty Adorable Dogs and Cats!

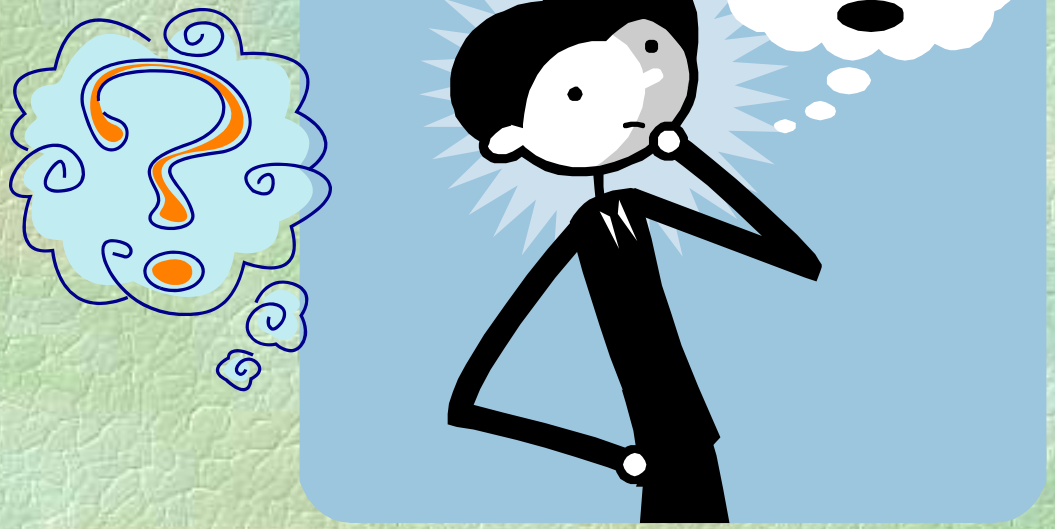






Scientists often use the scientific method to solve problems and answer questions. There are 6 steps to the Scientific Method.



1. **Ask a question** based on observations. This is the **problem** you want to solve.
2. **Form a hypothesis**, which is a possible explanation for what you have observed. Gather **information**.
3. **Test the hypothesis** by conducting **experiments**.
4. **Analyze the results** collected from experiments. The results are based on your **observations**.
5. **Draw conclusions** from the results of your experiment.
6. **Communicate results** to other scientists.

By following these steps, you will learn about your question.

- Science is a creative process. Scientists may have to repeat steps of the scientific method or do them in a different order.

Ask a Question

*This is the problem that you are trying to solve.

*Try to narrow it down and be very specific.

Information -

- Gather data about your question. Sources include--

books

magazines

reports

experts

your past experiences

Form a **H**ypothesis:

- -an educated guess
- -a prediction based on data
- -what *you* think the answer is based upon your gathered information

Experiment:
Test the hypothesis

- An experiment is broken into 2 parts, materials and procedure.
- Materials is a list of equipment that you will need for the experiment.
- Procedure is a list of instructions that you need to follow for the experiment.

Make Observations
Analyze the results

- Observations are based on the **collection of information and data** from the experiment.
- It may be charts, graphs, or written work.
- This is WHAT HAPPENED!!!!!

Draw Conclusions

- What did you find the answer to the question was?
- It is **OK** if it turns out that your hypothesis was not correct. You learned!!!!!!!!
- Scientists are always asking new questions or looking at old questions from a different angle. As they find new answers, scientific knowledge continues to grow and change.

Communicate your results by reporting your findings

- One of the most important parts of the scientific method is to report your findings to others.
- You will help others learn.