

The Scientific Method

Ask a question.

- Start your question with one of the 5 W's: Who, What, When, Where, Why, or hoW?
- Important criteria for a good question include:
 - Can be researched and tested.
 - Can be proven one way or the other.
 - Needs to be complex. *Not* a yes/no or right/wrong type question.
- Example: "What medicine can treat coronavirus?"



Do background research.

- This means using reliable sources* to learn more about that topic. See link below for some reliable sources that are perfect for middle-schoolers!
- Example: Read about medicines that are used to treat other viruses, such as the yearly flu.



Create a hypothesis.

- This is what you *think* the answer is.
- Example: Our prediction is that flu medication could help people with coronavirus.
- Now it's time to test our idea!

POSSIBLE
OUTCOMES



I think
it's this
one!

Test with an experiment.

- Here comes the creative part - come up with a way to test your hypothesis and see if it is correct.
- Example: Our experiment is going to test whether flu medication helps people recover from the coronavirus by comparing how sick patients with coronavirus who take flu medication were versus patients who did not take flu medication.



Analyze data and draw conclusions.

- Time to figure out what the results of your experiment mean.
- Example: In our experiment, we found that people who have coronavirus who take flu medicine do not feel less sick and do not get better faster. Thus, our study suggests that flu medication does not help treat people who have coronavirus.



Share your results.

- Scientists then share their findings with everyone else so that we all can learn from their work.
- Example: You could make an online presentation to share with your classmates, teachers, and friends/family.

