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Use these two sections in this book to...

- ask questions
- make guesses
- test your ideas
- collect information
- think about what it all means

And most importantly . . .

- learn more about your world!



# The Scientific Method

The scientific method has been used for over 400 years as a way to learn more about our world. There are 6 parts to this method.

## 1. Question

Find something that you are curious to know and then ask how it works.

## 2. Hypothesis

A hypothesis is a thoughtful guess. Think about what you already know and make a guess about how your question might be answered.

## 3. Experiment

Test your hypothesis. Design a way to see if your guess is correct.

## 4. Data

Record the results of your experiment. Write down what you observed.

## 5. Analysis

Review your results. Try to determine what they tell you about your hypothesis.

## 6. Report

Explain your results. Was your hypothesis correct or incorrect? How do you know?



# Experiment # 1

## Question

The world is full of mysteries big and small. Which question would you like to answer?

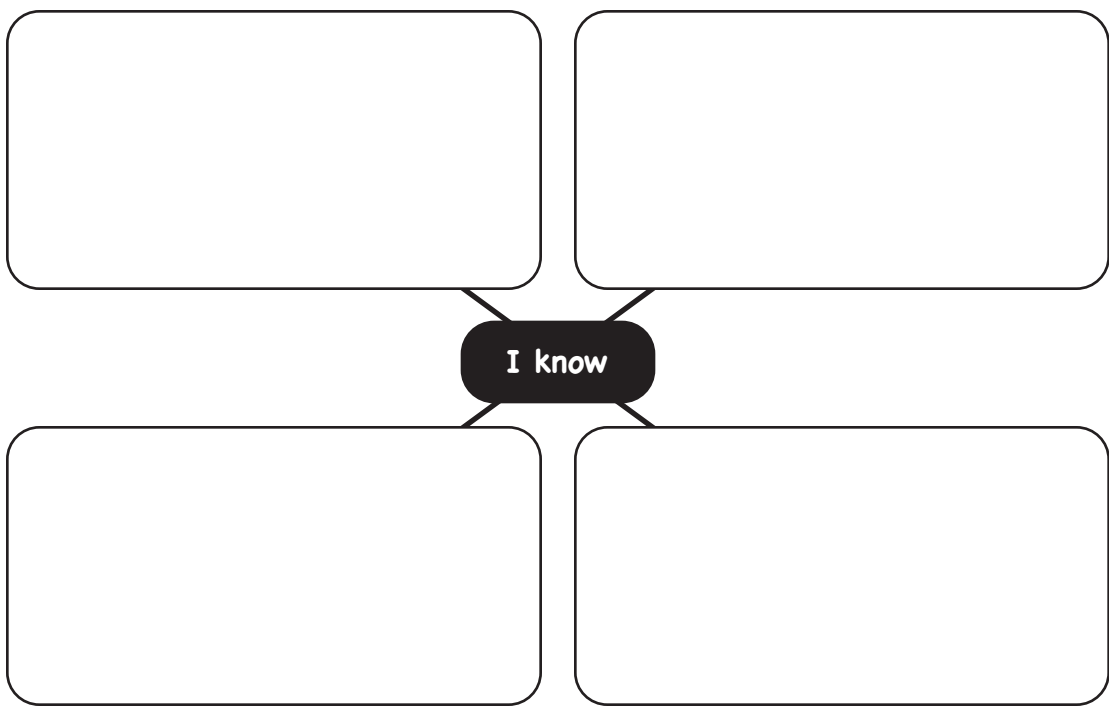
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## Knowledge

What do you already know about this subject?





# Experiment #1 *(cont.)*

## Experiment *(cont.)*

Experiments usually have variables, which are

- the parts of the experiment that stay the same
- the parts that change
- the parts that you will measure to determine your results

What are the variables of your experiment? Fill out this page and the next page with your variables.

### **Controlled Variable(s)**

This is the thing (or things) that will be staying the same.





# Experiment #1 *(cont.)*

## Conclusions/Report

The Question: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

My Hypothesis: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

My hypothesis was  correct  incorrect .

Here's why: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

What I think this means: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_