SCIENCE · SCIENTIFIC METHOD · GRADES 2–4

Steps of the Scientific Method

Number the seven steps of the scientific method in order, then match three words to their meanings.



Name: _____ **Date:** _____

Write 1 to 7 to put the steps of the scientific method in order.

- [ ] Make a hypothesis: a guess you can test.
- [ ] Share your results.
- [ ] Ask a question.
- [ ] Record and look at the data.
- [ ] Do some research.
- [ ] Draw a conclusion.
- [ ] Test it with an experiment.

Draw a line from each word to its meaning.

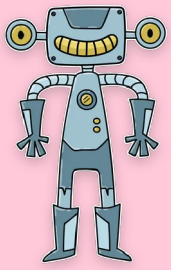
hypothesis ●	● facts and measurements you record
data ●	● what you learned from the experiment
conclusion ●	● a guess you can test

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SCIENCE · SCIENTIFIC METHOD · GRADES 2–5

Science Experiment Recording Sheet

A lab sheet for any experiment: question, hypothesis, materials, steps, data, results and conclusion.



Name: _____ **Date:** _____

Question: _____

Hypothesis: I think _____

Materials

- _____
- _____
- _____
- _____

Steps

1. _____
2. _____
3. _____
4. _____

Data

	Trial 1	Trial 2	Trial 3

Results: draw or graph what happened.

My hypothesis was: ☐ correct ☐ not correct ☐ partly correct

Conclusion: what I learned

_____

_____

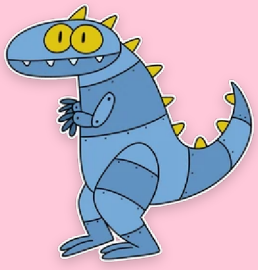
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SCIENCE · SCIENTIFIC METHOD · GRADES 3–5

Hypotheses and Variables

For three experiments, name what you change, what you measure and what stays the same, then write an if-then hypothesis.

Name: _____ **Date:** _____



In a fair test, you **change** one thing, **measure** one thing and keep **everything else the same**.

1. Does a higher ramp make a toy car roll farther?

I change: _____

I measure: _____

I keep the same: _____

If-then hypothesis: _____

2. Do bean plants grow taller with more sunlight?

I change: _____

I measure: _____

I keep the same: _____

If-then hypothesis: _____

3. Does salt make ice melt faster?

I change: _____

I measure: _____

I keep the same: _____

If-then hypothesis: _____

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SCIENCE · SCIENTIFIC METHOD · GRADES 2–5

Science Observation Journal

Look closely at one object: draw it as if under a magnifying glass, describe it and ask a question.

Name: _____ **Date:** _____



Look closely. Draw every detail you see.

Object _____

Color _____

Shape _____

Size (cm) _____

Texture _____

Smell _____

I notice...

_____

_____

It reminds me of...

_____

_____

A question I have:

_____

_____

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SCIENCE · SCIENTIFIC METHOD · GRADES 3–5

Observation or Inference?

Ten sentences to mark as an observation (what you notice) or an inference (what you figure out).



Name: _____ **Date:** _____

An **observation** is something you notice with your senses. An **inference** is something you figure out from what you notice.

Circle O for observation or I for inference.

The leaf is green and yellow.	O	I
The leaf fell because it is fall.	O	I
The sidewalk is wet.	O	I
It rained last night.	O	I
The dog is wagging its tail.	O	I
The dog is happy to see us.	O	I
The ice cube is getting smaller.	O	I
The ice is melting because the room is warm.	O	I
The rock has three gray stripes.	O	I
Someone ate the last cookie.	O	I

Write one observation and one inference about your classroom.

_____

_____

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ANSWER KEY · SCIENTIFIC METHOD · GRADES 2–4

Answer Key: Steps of the Scientific Method

Answers for grown-ups. Some questions have more than one good answer.



Write 1 to 7 to put the steps of the scientific method in order.

3 Make a hypothesis: a guess you can test.

7 Share your results.

1 Ask a question.

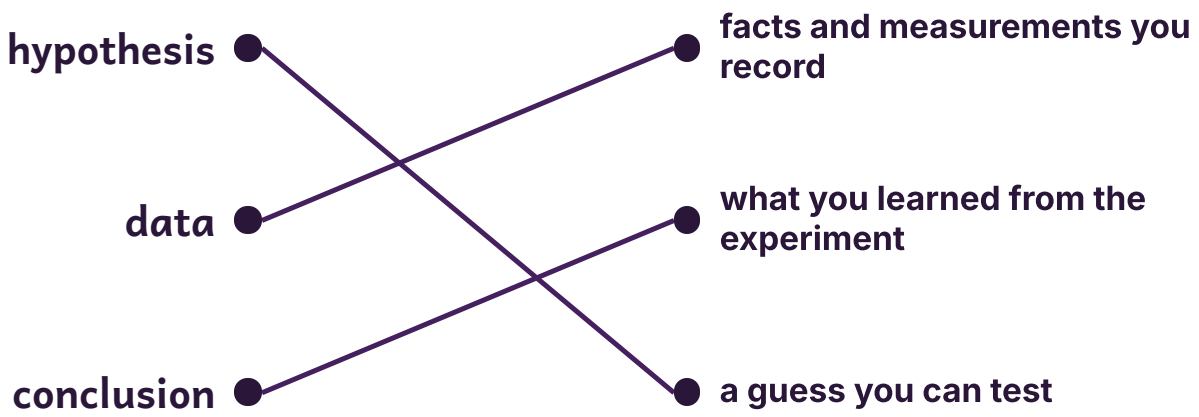
5 Record and look at the data.

2 Do some research.

6 Draw a conclusion.

4 Test it with an experiment.

Draw a line from each word to its meaning.

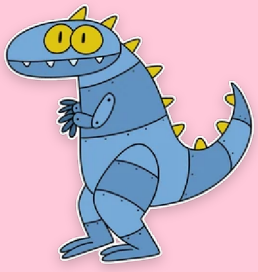


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ANSWER KEY · SCIENTIFIC METHOD · GRADES 3–5

Answer Key: Hypotheses and Variables

Answers for grown-ups. Some questions have more than one good answer.



In a fair test, you **change** one thing, **measure** one thing and keep **everything else the same**.

1. Does a higher ramp make a toy car roll farther?

I change: the height of the ramp

I measure: how far the car rolls

I keep the same: the car, the ramp and the floor

If-then hypothesis: If the ramp is higher, then the car will roll farther.

2. Do bean plants grow taller with more sunlight?

I change: how much sunlight the plants get

I measure: how tall the plants grow

I keep the same: the kind of bean, the water and the soil

If-then hypothesis: If a plant gets more sunlight, then it will grow taller.

3. Does salt make ice melt faster?

I change: salt or no salt on the ice

I measure: how long the ice takes to melt

I keep the same: the size of the ice cubes and the room

If-then hypothesis: If we put salt on ice, then it will melt faster.

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ANSWER KEY · SCIENTIFIC METHOD · GRADES 3–5

Answer Key: Observation or Inference?

Answers for grown-ups. Some questions have more than one good answer.



An **observation** is something you notice with your senses. An **inference** is something you figure out from what you notice.

Circle O for observation or I for inference.

The leaf is green and yellow.	**O**	I
The leaf fell because it is fall.	O	**I**
The sidewalk is wet.	**O**	I
It rained last night.	O	**I**
The dog is wagging its tail.	**O**	I
The dog is happy to see us.	O	**I**
The ice cube is getting smaller.	**O**	I
The ice is melting because the room is warm.	O	**I**
The rock has three gray stripes.	**O**	I
Someone ate the last cookie.	O	**I**

Write one observation and one inference about your classroom.

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