

The Scientific Method Vocabulary

- conclusion** [Noun] con•clu•sion
Sentence: When writing, you can use the conclusion to summarize what you've already written, since it comes at the end.
Definition: the end or last part of an event, process, or experiment
- data** [Noun] da•ta
Sentence: The researchers compiled a conclusive report based on their review of the data.
Definition: facts and information, such as measurements or statistics, used to analyze or plan
- hypothesis** [Noun] hy•poth•e•sis
Sentence: The scientist's hypothesis turned out to be false.
Definition: a proposed explanation that is based on evidence but has not been proven
- investigation** [Noun] in•vest•i•ga•tion
Sentence: A science investigation is like an experiment.
Definition: a detailed examination in order to determine facts
- materials** [Noun] ma•ter•i•als
Sentence: Raw materials, including iron, nickel, and chromium, are combined to make steel.
Definition: the items needed for an activity
- observation** [Noun] ob•ser•va•tion
Sentence: From our observation of the sharks, we developed many theories about their behavior.
Definition: the act or instance of carefully watching and recording something as it happens

The Scientific Method Vocabulary

7. **procedure** [Noun] pro•ce•dure
Sentence: Every surgeon is trained to follow a certain procedure before beginning an operation.
Definition: a set or series of actions that are followed to complete a specific task

8. **scientific method** [Noun] sci•en•ti•fic meth•od
Sentence: The scientific method is a series of steps for testing scientific theories.
Definition: the process scientists use to test theories and ideas by performing experiments and observation

9. **variable** [Noun] var•i•a•ble
Sentence: A variable is something that may change.
Definition: something capable of changing

conclusion
(noun)

1. The **conclusion**, not the introduction, comes at the end of a story.
2. The **conclusion** of a scientific experiment is what you learn, or conclude, from it.
3. I didn't expect the **conclusion**, or close, of the story to be so sad.

data
(noun)

1. **Data** is factual information used to analyze, plan, or draw conclusions.
2. **Data** often comes in the form of measurements or statistics.
3. The scientists collected important **data** from the experiment.

hypothesis
(noun)

1. A **hypothesis** is a working theory that has yet to be proven.
2. A **hypothesis** is formulated with limited evidence and is the basis for further investigation.
3. Her initial **hypothesis** that it is always hot in Arizona turned out to be false.

investigation
(noun)

1. Synonyms for **investigation** include inquiry and exploration.
2. Our class conducted an **investigation**, or study, of people's views on recycling.
3. Detectives conducted an **investigation** of the mysterious fire at the factory.

materials
(noun)

1. Raw **materials**, such as wood and metals, are things in their natural state that are changed to create something else.
2. The **materials**, or things, I need for my art project are paper, scissors, glue, and markers.
3. Did you bring all your writing **materials** with you?

observation
(noun)

1. An **observation** is like an inspection or an examination.
2. An **observation** is the careful watching and recording of something in order to get information.
3. Scientists use their five senses to make an **observation**.

procedure
(noun)

1. Each set of actions in the **procedure** must be followed exactly to complete the task correctly.
2. The team practiced the **procedure** until the routine flowed smoothly.
3. The system was set in place so that everyone would follow the same **procedure**.

scientific method
(noun)

1. The **scientific method** is an organized way of figuring something out.
2. The **scientific method** involves formulating a theory based on an observation or idea.
3. Part of the **scientific method** is making, testing, and revising predictions based on a hypothesis, or theory.

variable
(noun)

1. A **variable** is changeable or modifiable.
2. The weather is a **variable** you must consider when planning an outdoor event.
3. The opposite of a **variable** is a constant.

Name: _____

INSTRUCTIONS: Record a vocabulary word in each word box. Then write a synonym and an antonym, draw a picture, and define each word. Use each word in a sentence on the back of this worksheet.

| |
|-------|
| Word |
| _____ |

| |
|---------|
| Picture |
| |

Synonym

Antonym

Definition _____

| |
|-------|
| Word |
| _____ |

| |
|---------|
| Picture |
| |

Synonym

Antonym

Definition _____

conclusion

the end or last part of an
event, process, or
experiment
(noun)

data

facts and information,
such as measurements or
statistics, used to analyze
or plan
(noun)

hypothesis

a proposed explanation
that is based on evidence
but has not been proven
(noun)

investigation

a detailed examination in
order to determine facts
(noun)

materials

the items needed for an
activity
(noun)

observation

the act or instance of
carefully watching and
recording something as it
happens
(noun)

procedure

a set or series of actions
that are followed to
complete a specific task
(noun)

**scientific
method**

the process scientists use
to test theories and ideas
by performing
experiments and
observation
(noun)

variable

something capable of
changing
(noun)

Name: _____

An **analogy** shows a relationship between two sets of words. The words in the first pair must have the same relationship as the words in the second pair. To complete an analogy with a missing word, you must first discover the relationship between the completed pair. (Example: *Cat is to meow as dog is to bark.*)

disclose conserve recording beginning rely
prove calculate hypothesis utensils

INSTRUCTIONS: Determine the relationship between the first pair of words. Then use the words in the word box to complete the second pair of words.

1. Hypothesis is to *theory* ...as... confirm is to _____.
2. Investigation is to *investigate* ...as... calculation is to _____.
3. Conclusion is to *end* ...as... introduction is to _____.
4. Data is to *information* ...as... theory is to _____.

Name: _____

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conserve rely calculate disclose hypothesis
prove recording beginning utensils

INSTRUCTIONS: Determine the relationship between the first pair of words. Then use the words in the word box to complete the second pair of words.

5. Scientific method is to *testing* ...as... scientific notation is to

_____.

6. Materials are to *supplies* ...as... tools are to _____.

7. Observation is to *observe* ...as... conservation is to _____.

8. Procedure is to *proceed* ...as... disclosure is to _____.

Name: _____

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calculate conserve beginning utensils rely
recording disclose prove hypothesis

INSTRUCTIONS: Determine the relationship between the first pair of words. Then use the words in the word box to complete the second pair of words.

9. Variable is to *vary* ...as... reliable is to _____.

Name: _____

investigation variable hypothesis procedure
materials observation conclusion data
scientific
method

INSTRUCTIONS: Use the vocabulary words in the word box above to complete the sentences below.

1. The scientist's _____ turned out to be false.
2. A science _____ is like an experiment.
3. The researchers compiled a conclusive report based on their review of the _____.
4. When writing, you can use the _____ to summarize what you've already written, since it comes at the end.

Name: _____

procedure observation conclusion hypothesis
materials investigation data scientific
method
variable

INSTRUCTIONS: Use the vocabulary words in the word box above to complete the sentences below.

5. Raw _____, including iron, nickel, and chromium, are combined to make steel.
6. From our _____ of the sharks, we developed many theories about their behavior.
7. The _____ is a series of steps for testing scientific theories.
8. Every surgeon is trained to follow a certain _____ before beginning an operation.

Name: _____

investigation observation materials

scientific

method

conclusion variable

procedure data hypothesis

INSTRUCTIONS: Use the vocabulary words in the word box above to complete the sentences below.

9. A _____ is something that may change.

Name: _____

INSTRUCTIONS: Use what you know about the vocabulary words to complete the following sentences.

1. At the **conclusion** of my day, I turn off the lights and _____.
2. A **hypothesis** is _____.
3. You might use a **procedure** when _____.
4. To make a poster, the **materials** you'll need are _____.
5. You might conduct an **investigation** to _____.
6. The **scientific method** is used to _____.
7. The **variable** in the equation is _____.
8. An **observation** is similar to _____.
9. The **data** was used to _____.

Name: _____

INSTRUCTIONS: Choose the best answer to complete each statement.

- A conclusion comes at the _____.
 (a) middle
 (b) beginning
 (c) end
- Data is used to _____.
 (a) produce energy
 (b) draw conclusions
 (c) manufacture products
- A hypothesis is formulated based on _____ evidence.
 (a) absolute
 (b) proven
 (c) limited
- An investigation is not _____.
 (a) a study
 (b) an idea or theory
 (c) an examination
- Materials for a project are like _____ for a recipe.
 (a) pots
 (b) utensils
 (c) ingredients
- During an observation, a scientist may _____.
 (a) walk away
 (b) work on something else
 (c) record information
- What is another word for *procedure*?
 (a) *goal*
 (b) *routine*
 (c) *reason*
- The scientific method is a process used to _____ theories.
 (a) test
 (b) limit
 (c) create
- A variable is the opposite of _____.
 (a) a constant
 (b) an inference
 (c) a solution