

Physical Science

MP 1 - A

MATCHING - 1

Directions: Place the correct letter on the line that matches the definition to the word

- | | |
|-----------------------------|---|
| _____ 1. Empirical evidence | A. representation of something in the natural world |
| _____ 2. Science | B. describes a basic principle of nature that always occurs under certain conditions |
| _____ 3. Testable | C. any factor that can change in an experiment, observation or model |
| _____ 4. Evidence | D. hypothetical landmass that existed when all continents were joined |
| _____ 5. Law | E. well supported explanation of the natural world |
| _____ 6. Model | F. a result, issue or outcome; summing up the points and a statement of opinion or decisions reached |
| _____ 7. Pangea | G. the force of attraction by which terrestrial bodies tend to fall toward the center of Earth |
| _____ 8. Gravity | H. process of obtaining information by using the senses |
| _____ 9. Theory | I. systematic study of natural events and conditions |
| _____ 10. Data | J. testable idea or explanation that leads to a scientific explanation |
| _____ 11. Experiment | K. evidence gathered from observation |
| _____ 12. Variable | L. the trial of the quality of something; proof |
| _____ 13. Observation | M. information gathered by observation or experimentation that can be used in calculating and reasoning |
| _____ 14. Hypothesis | N. that which tends to prove or disprove something; ground for belief |
| _____ 15. Conclusion | O. organized procedure to study something under controlled conditions |

FILL IN - 1

Directions: Use each of the terms below just once to complete the passage.

hypothesis

theory

science

graph

table

data

law

experiment

model

empirical evidence

1. A good scientific _____ can repeated by someone else and the same results is found.
2. A(n) _____ can be a visual or a mathematical representation of an object or process.
3. Science uses _____ to support its explanation.
4. Data can be arranged in visual displays called _____ to make identifying trends easier.
5. A scientific _____ has a lot of support and is more than just a "hunch." A(n)
6. A(n) _____ determines what will be tested in a scientific experiment.
7. The study of _____ involves the study of the natural world
8. After data are collected, they are often arranged in a(n) _____.
9. Unlike in society, a scientific _____ is simply a description of what we see.
10. All of the _____ gathered in an investigation must be recorded.

MULTIPLE CHOICE

Directions: Circle the letter that best completes the question.

1. What would cause a theory or model to change?

- A. new evidence
- B. new explanation
- C. new experiment
- D. they never change

2. What types of web pages would have the most reliable scientific information?

- A. the government
- B. NASA
- C. a university webpage
- D. all of the above

3. An experiment tests the _____.

- A. conclusion
- B. hypothesis
- C. data
- D. observation

4. How many variables are tested during an experiment?

- A. 1
- B. 2
- C. 3
- D. 4

5. How many layer does Earth have?

- A. 1
- B. 2
- C. 3
- D. 4

6. What are some characteristics shared by people working in the field of science?

- A. they are curious
- B. they are creative
- C. they are problem solvers
- D. all of the above

7. Who identified and coined the word "cell"?

- A. Robert Hooke
- B. Marie Curie
- C. Antoine Lavoisier
- D. Luis Alvarez

8. Data can be arranged in visual displays called _____ to make identifying trends easier.

- A. model
- B. table
- C. graph
- D. equation

9. The horizontal axis, x-axis, displays the _____.

A. dependent variable

B. independent variable

10. How many types of graphs did we learn about?

A. 1

C. 4

B. 3

D. 5

11. They used the "bluegills" to test the water because the fish _____.

A. they cough

C. vomit

B. they swim in circles

D. they die

SHORT ANSWERS

Directions: Answer all short answer questions using complete sentences. Spelling and grammar count.

1. What is empirical evidence?

2. Name two ways scientists show creativity.

3. What was the landmass called before the separation? Name the seven continents.

4. What two types of scientific knowledge can be expressed as mathematical equations?
