

NAME : \_\_\_\_\_

CLASS : \_\_\_\_\_

DATE : \_\_\_\_\_

1. The variable that is being tested or changed

independent variable

dependent variable

control variable

2. Mr. S. sets up an experiment to see how the mass of a ball affects the distance it rolls off a ramp. Identify the independent variable.

distance traveled by the ball

height of the ramp

mass of the ball

weight of the ball

3. What step does every scientific experiment begin with?

hypothesis

question/problem

procedures

conclusion

4. An experiment is performed on plants to see how different liquids affect plant growth. Each plant in the experiment is given a different liquid; water, apple juice, or milk. Each plant has the same amount of soil, sunlight, and listens to the same music. In this investigation, what is the dependent variable?

Type of plant

Water, apple juice, milk

Plant growth

5. When experimenting with the growth of a plant, a scientist uses three (of the same type of) plants, two different fertilizers, equal light, and equal water. What type of variable is the fertilizer?

Dependent

Independent

Control

Compound

6. The educated guess you make at the beginning of the scientific method is called the....

variable

conclusion

hypothesis

procedure

7. The variable that is being measured

independent variable

dependent variable

control variable

8. the variable that is kept the same to make sure results are caused by the thing being tested

independent variable

dependent variable

control variable

9. A student is planning an experiment to find out how the height from which he drops a ball affects how high the ball bounces. The dependent variable is the \_\_\_\_.

Diameter of the ball

Force acting on the ball

Height that the ball bounces

Height from which the ball is dropped

10. You use your five sense to find out about the world around you. This is called\_\_\_\_\_.

observations

data

conclusion

scientific method

11. A series of steps used by scientists to solve a problem or answer a question.

scientific method

recipe

data collection

metric system

12. *If plants are exposed to sunlight, then they will grow taller.*  
What part of the scientific method is this an example of?

Procedure

Hypothesis

Question

Results

13.



What is a hypothesis?

an educated guess stating what you believe will be the result of your experiment

a random guess

a statement of the outcome of your experiment

step by step directions for your experiment

14. Should experiments be repeated over and over to see if the results are the same each time?

yes

no

15. The summary at the end of an experiment that explains the results.

conclusion

procedures

materials

responding variable

16. In a controlled experiment, how many variables can be worked with at a time?

one

none

two or more

how ever many makes sense.

17.



Josie was performing an experiment where she grew the same kind of tomatoes in the same soil and amount of water. She sat one in the sun and one in a closet for 14 days. What is the independent variable in Josie's experiment?

tomatoes

soil

sunlight

water

18. The factors that remain the same in an experiment are known as -----.

Variables

Controls

Constants

Trials

19.



What step does every scientific experiment begin with?

hypothesis

question/problem

procedures

conclusion

20. List the Scientific Process steps in order.

Observation, Question, Hypothesis,  
Experiment, Data, Conclusion

Conclusion, Observation,  
Experiment, Data, Hypothesis

Observation, Experiment,  
Hypothesis, Conclusion, Data,  
Question

None of the above

21. The variable the is changed on purpose is..

Constant

Control

Independent Variable

Dependent Variable