

QUIZZ Worksheets**Science & Engineering Practices**

Total questions: 20

Worksheet time: 16mins

Instructor name: Luke Gilly

Name Class Date

1. **One way scientist analyze data is by using _____.**

- a) law
- b) charts and tables
- c) theory
- d) variable

2.



The information you record in an experiment is called your _____.

- a) inquiry
- b) notebook
- c) conclusions
- d) data

3. A possible explanation to a problem that has not yet been tested.

- a) fact
- b) theory
- c) hypothesis
- d) data

4. A representation that explains an object, theory or complex process

- a) design
- b) black box
- c) model
- d) collaboration

5. Controlled variables do not
- a) change
 - b) interval
 - c) add data
 - d) happen
6. A good scientific conclusion includes
- a) claim, evidence and reasoning
 - b) your opinion about how fun it was
 - c) hypothesis and ending only
 - d) pictures in color
7. A quantitative observation includes
- a) colors
 - b) numbers
 - c) words
 - d) texture
8. Popeye states "Eating spinach will give you added strength." This is an example of
- a) Insanity
 - b) Reasoning
 - c) Evidence
 - d) Claim
9. How does scientific knowledge change over time?
- a) collecting new information about the natural world
 - b) taking surveys and opinion polls
 - c) adding websites on the Internet
 - d) asking scientific questions
10. Which of the following is a quantitative observation?
- a) The clouds are lower in the atmosphere today than yesterday.
 - b) At the end of the week, the plant heights were 6 in, 11 in., 4 in., and 8 in.
 - c) The butterfly landed and fed from the purple flowers along the path.
 - d) The robin egg is blue with brown specks.
11. Which of the following is a qualitative observation?
- a) The grizzly bear's summer coat is thin and yellowish.
 - b) There were two caterpillars eating the leaf.
 - c) The temperature was 24 degrees Celsius.
 - d) The mass of the sample is 562 grams.

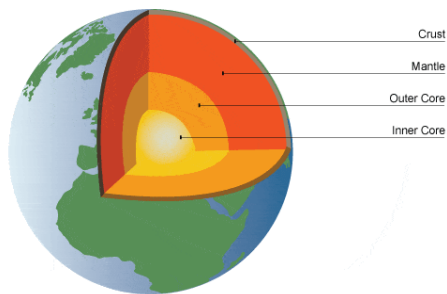
12.



If I give more water to the cucumber plant, then it will grow quickly. This is an example of a(n) _____.

- a) Hypothesis
 b) Explanation
 c) Inference
 d) Observation

13.



A DIAGRAM/DRAWING of the earth is an example of a

- a) graph
 b) model
 c) toy
 d) chart

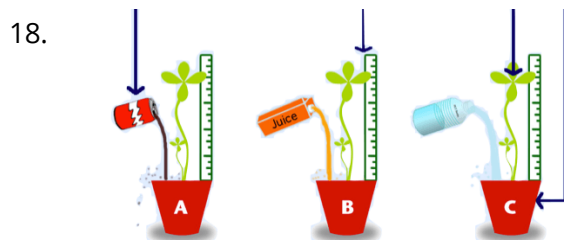
14. The variable the is changed on purpose is..

- a) Constant
 b) Independent Variable
 c) Control
 d) Dependent Variable

15. The variable that is being tested, counted, or measured and is responding to the independent variable is known as

- a) Control
 b) Constant
 c) Independent Variable
 d) Dependent Variable

16. Mrs. Goodwyn wants to see if studying time affects test scores...She gives all 6 classes the same assignment but assigns different study times. What is the independent variable?
- a) Study time
b) Same assignment
c) Test score
17. Mrs. Goodwyn wants to see if studying time affects test scores...She gives all 6 classes the same assignment but assigns different study times. What is the dependent variable?
- a) Study time
b) Same Assignment
c) Test Score



In a well designed experiment, you should change how many **variables**?

- a) only one
b) none at all
c) as many as are needed
d) no more than two
19. **Theory or Law???** Is a well-tested **EXPLANATION** for a wide range of observations and experimental results.
- a) Law
b) Theory
20. **Theory or Law???** Is a **DESCRIPTION** of what a scientists expects to happen every time under a certain set of conditions.
- a) Law
b) Theory