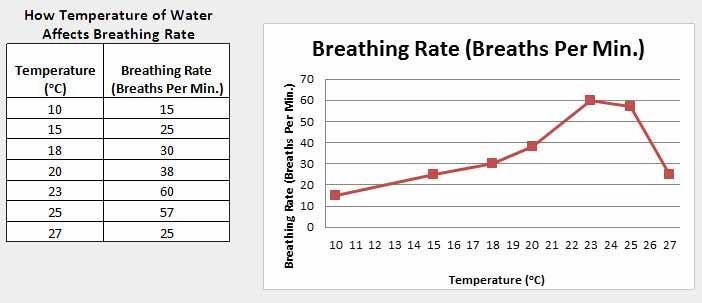
1. What skill is a scientist using when she listens to the sounds that whales make?
   1. interpreting data
   2. making observations
   3. drawing conclusions
   4. making a hypothesis
2. Examples of skills used in science include \_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_.
   1. clues, detectives
   2. observations, measurements
   3. facts, jokes
   4. passing gas, belching
3. What is the correct order of the steps in the scientific method.
   1. Ask a question, analyze results, make a hypothesis, test the hypothesis, draw conclusions, communicate results.
   2. Make a hypothesis, test the hypothesis, analyze the results, ask a question, draw conclusions, communicate results.
   3. Ask questions, make a hypothesis, test the hypothesis, analyze results, draw conclusions, communicate results.
   4. Ask a question, make a hypothesis, test hypothesis, draw conclusions, analyze results, communicate results.
4. Which question would be the best question to perform an experiment?
   1. How many giraffes live in Africa?
   2. Who made the first microscope?
   3. How long ago did dinosaurs live on the Earth?
   4. Does the amount of salt in water affect the temperature at which it boils?
5. Which of the following is **NOT** a rule when writing a hypothesis?
   1. It must be true
   2. It is a prediction
   3. It is testable
   4. It is an if/then statement
6. A factor in an experiment is called a(n):
   1. observation
   2. variable
   3. hypothesis
   4. procedure
7. Numbers, facts, figures and other evidence learned through observation and testing are called:
   1. questions
   2. data
   3. questions
   4. hypothesis
8. In an experiment, you must have \_\_\_\_\_\_\_\_\_ independent variable(s).
   1. one
   2. two
   3. three
   4. any number
9. The list of steps involved in performing an experiment are like the steps in a recipe. It is called the \_\_\_\_\_\_\_\_\_\_\_.
   1. Conclusion
   2. Scientific Steps
   3. How to do the experiment list
   4. Procedure
10. An experiment that tests only one factor at a time by using a comparison of a control group and an experimental group is called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_?
    1. a dependent variable
    2. an independent variable
    3. a theory
    4. a controlled experiment
11. Which of the following hypotheses is written correctly?
    1. If I freeze a tennis ball, then it will not bounce as high.
    2. If I heat up a tennis ball it will bounce high.
    3. Frozen tennis balls will not bounce as high.
    4. If a tennis ball is frozen, it won't bounce as high as one that is not frozen.
12. The process of obtaining information by using the senses is called a/an
    1. inquiry
    2. scientific method
    3. observation
    4. conclusion
13. A series of steps designed to help you solve problems and answer questions
    1. scientific method
    2. hypothesis
    3. experiment
    4. observation
14. In an experiment, the one variable that is changed is called the
    1. dependent variable
    2. independent variable
    3. experimental variable
    4. controlled variable
15. In an experiment, the factor that we measure/observe is called the
    1. independent variable
    2. controlled variable
    3. dependent variable
    4. conclusion
16. A scientist hypothesizes the temperature at which an alligator's egg is incubated will determine whether the alligator will be male or female. The independent variable is
    1. the male alligators
    2. the gender of the alligator
    3. the temperature
    4. the incubator
17. A scientist hypothesizes the temperature at which an alligator's egg is incubated will determine whether the alligator will be male or female. The dependent variable is
    1. the temperature
    2. the size of the baby alligators
    3. the incubator
    4. the gender of the baby alligators
18. A scientist conducted an experiment to determine how the amount of salt in a body of water affects the number of plants that can live in the water. In this experiment the independent variable is
    1. the number of plants in the water
    2. the amount of salt in the water
    3. the water
    4. the temperature of the water
19. A scientist conducted an experiment to determine how the amount of salt in a body of water affects the number of plants that can live in the water. In this experiment the dependent variable is
    1. the number of plants in the water
    2. the amount of salt in the water
    3. the water
    4. the temperature of the water
20. All the things in an experiment that must be the same to make it fair are called
    1. controlled variables or constants
    2. independent variables
    3. dependent variables
    4. controlled experiments
21. In science, an educated guess is called a/an
    1. Conclusion
    2. Observation
    3. Hypothesis
    4. Question
22. When you decide whether or not the data supports the original hypothesis, you are
    1. forming a hypothesis
    2. making observations
    3. asking questions
    4. drawing conclusions
23. When a scientist shares her findings with other scientists, she is
    1. communicating results
    2. experimenting
    3. analyzing data
    4. making a hypothesis
24. In which step(s) of the scientific method do we want to use graphs
    1. asking questions
    2. make a hypothesis
    3. analyze data/communicate results
    4. perform an experiment
25. The final part; what you found out in the end, a summary of reasonable inferences is a/an
    1. question
    2. controlled experiment
    3. hypothesis
    4. conclusion
26. Which of the following is important when creating a graph in science.
    1. Labels
    2. Titles
    3. Neatness
    4. all of these
27. A scientist who wants to study the effects of fertilizer on plants sets up an experiment. Plant A gets no fertilizer, Plant B gets 5 mg of fertilizer each day, and Plant C gets 10 mg of fertilizer each day. Which plant is the control group?
    1. Plant A
    2. Plant B
    3. Plant C
    4. All of them
28. A scientific procedure undertaken to make a discovery, test a hypothesis, or demonstrate a known fact is a/an
    1. Hypothesis
    2. Experiment
    3. Law
    4. theory
29. A way of solving problems that uses a series of logical steps is called
    1. the scientific method
    2. experimental guidelines
    3. standard procedures
30. 
31. What is the independent variable in this experiment?
32. What is the dependent variable in this experiment?

Answer Key

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1. B | 7. B | 13. A | 19. A | 25. D |
| 1. B | 8. A | 14. B | 20. A | 26. D |
| 1. C | 9. D | 15. C | 21. C | 27. A |
| 1. D | 10. D | 16. C | 22. D | 28. B |
| 1. A | 11. A | 17. D | 23. A | 29. A |
| 1. B | 12. C | 18. B | 24. C | 30a) Water temperature  b) Breathing rate |

Names: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | 7. | 13. | 19. | 25. |
|  | 8. | 14. | 20. | 26. |
|  | 9. | 15. | 21. | 27. |
|  | 10. | 16. | 22. | 28. |
|  | 11. | 17. | 23. | 29. |
|  | 12. | 18. | 24. | 30a)  b) |

Names: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | 7. | 13. | 19. | 25. |
|  | 8. | 14. | 20. | 26. |
|  | 9. | 15. | 21. | 27. |
|  | 10. | 16. | 22. | 28. |
|  | 11. | 17. | 23. | 29. |
|  | 12. | 18. | 24. | 30a)  b) |

Names: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | 7. | 13. | 19. | 25. |
|  | 8. | 14. | 20. | 26. |
|  | 9. | 15. | 21. | 27. |
|  | 10. | 16. | 22. | 28. |
|  | 11. | 17. | 23. | 29. |
|  | 12. | 18. | 24. | 30a)  b) |