

Quiz #1 Variables and Observations

Name: _____

Date: _____

1. _____: Also called controlled variables-these are the things that stay the same in order to have a fair investigation.

- | | |
|----------------------------|-----------------------------|
| A. qualitative observation | B. quantitative observation |
| C. independent variable | D. dependent variable |
| E. constant variables | F. levels |
| G. repeated trials | H. testable question |

1. _____

2. _____: The ONE thing we change during an investigation.

- | | |
|----------------------------|-----------------------------|
| A. qualitative observation | B. quantitative observation |
| C. independent variable | D. dependent variable |
| E. constant variables | F. levels |
| G. repeated trials | H. testable question |

2. _____

3. _____:What we measure or observe to get data.

- | | |
|----------------------------|-----------------------------|
| A. qualitative observation | B. quantitative observation |
| C. independent variable | D. dependent variable |
| E. constant variables | F. levels |
| G. repeated trials | H. testable question |

3. _____

4. _____: Recorded using words-adjectives or nouns

4. _____

A. qualitative observation

B. quantitative observation

C. independent variable

D. dependent variable

E. constant variables

F. levels

G. repeated trials

H. testable question

5. _____: Scientists do these to make sure the results are reliable and accurate

5. _____

A. qualitative observation

B. quantitative observation

C. independent variable

D. dependent variable

E. constant variables

F. levels

G. repeated trials

H. testable question

6. _____: A question that contains variables; the question is written in the format: "What is the effect of IV on DV?" or "How does IV affect DV"?

6. _____

A. qualitative observation

B. quantitative observation

C. independent variable

D. dependent variable

E. constant variables

F. levels

G. repeated trials

H. testable question

7. _____:the ways you are changing your independent variable in an investigation
7. _____
- A. qualitative observation B. quantitative observation
- C. independent variable D. dependent variable
- E. constant variables F. levels
- G. repeated trials H. testable question
-
8. _____: Collected using numbers.
8. _____
- A. qualitative observation B. quantitative observation
- C. independent variable D. dependent variable
- E. constant variables F. levels
- G. repeated trials H. testable question
-
9. 9. Provide an example of a QUALITATIVE OBSERVATION. You may use an example from one of our lab activities or you can make one up. Explain why this is a qualitative observation.
9. _____
-
10. 10. Provide an example of a QUANTITATIVE OBSERVATION. You may use an example from one of our lab activities or you can make one up. Explain why this is a quantitative observation.
10. _____

11. Scenario: Kindergarten Lunch Time

11. _____

Alaiza wanted to find out if the color of food would affect whether kindergarten children would select it for lunch. She put food coloring into 5 identical bowls of mashed potatoes. The colors were plain, red, and blue. Each child chose a scoop of potatoes of the color of their choice. Alaiza did this experiment using 100 students in kindergarten. She recorded the number of students that chose each color.

11. What is the Independent Variable?

12. Scenario: Kindergarten Lunch Time

12. _____

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12. How is the Independent Variable being changed?

13. Scenario: Kindergarten Lunch Time

13. _____

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13. How is the Independent Variable being changed?

14. Scenario: Kindergarten Lunch Time

14. _____

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14. How is the Independent Variable being changed?

15. Scenario: Kindergarten Lunch Time

15. _____

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15. How many trials of each level of the Independent Variable are being performed?

16. Scenario: Kindergarten Lunch Time

16. _____

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16. How many trials of each level of the Independent Variable are being performed?

17. Scenario: Kindergarten Lunch Time

17. _____

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17. How many trials of each level of the Independent Variable are being performed?

18. Scenario: Kindergarten Lunch Time

18. _____

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18. What is the Dependent Variable?

19. Scenario: Kindergarten Lunch Time

19. _____

Alaiza wanted to find out if the color of food would affect whether kindergarten children would select it for lunch. She put food coloring into 5 identical bowls of mashed potatoes. The colors were plain, red, and blue. Each child chose a scoop of potatoes of the color of their choice. Alaiza did this experiment using 100 students in kindergarten. She recorded the number of students that chose each color.

19. What is ONE constant/controlled variable in this experiment?

20. 20. What is the Testable Question for this experiment?

20. _____

Quiz #1 Variables and Observations 01/19/2015

- | | |
|---------|---|
| 1. | |
| Answer: | E |
| 2. | |
| Answer: | C |
| 3. | |
| Answer: | D |
| 4. | |
| Answer: | A |
| 5. | |
| Answer: | G |
| 6. | |
| Answer: | H |
| 7. | |
| Answer: | F |
| 8. | |
| Answer: | B |
| 9. | |
| Answer: | |
| 10. | |
| Answer: | |
| 11. | |
| Answer: | |
| 12. | |
| Answer: | |
| 13. | |
| Answer: | |
| 14. | |
| Answer: | |
| 15. | |
| Answer: | |
| 16. | |
| Answer: | |
| 17. | |
| Answer: | |
| 18. | |
| Answer: | |
| 19. | |
| Answer: | |
| 20. | |
| Answer: | |