

Student's Name _____

THINKING WITH SCIENCE

Observation Quiz

Lesson 12 (The Pale Leaf)

1. The fact that Leaf B is pale is a:
 - A. manipulated variable
 - B. result
 - C. controlled variable
 - D. none of the above
2. Why aren't the leaves the manipulated variable?
 - A. because they are the same
 - B. because they are not both green
 - C. because they come from the same plant
 - D. all of the above
3. What is one word that names the manipulated variable?
 - A. leaf
 - B. liquid
 - C. water
 - D. jar
4. How do you know that the jar lids aren't the manipulated variable?
 - A. because they are both the same
 - B. because they are both yellow
 - C. because they are both on the jars
 - D. none of the above
5. What is the largest number of manipulated variables an experiment should include?
 - A. 1
 - B. 2
 - C. 3
 - D. there is no limit.
6. What is the largest number of controlled variables that an experiment should include?
 - A. 1
 - B. 5
 - C. 12
 - D. there is no limit

7. The control question for "Does A contain any water?" would be:
- A. does A contain only water?
 - B. does A contain anything else?
 - C. does B contain any alcohol?
 - D. Does B contain any water?
8. The word "tentative", when used to describe a conclusion, means:
- A. temporary
 - B. not final
 - C. not finished
 - D. all of the above
9. If a conclusion is supported by the data, and not refuted by the data, it can be called:
- A. final
 - B. reliable
 - C. inconclusive
 - D. none of the above
10. How do you know that water doesn't dissolve chlorophyll?
- A. because chlorophyll is green
 - B. because Liquid A isn't green
 - C. because Liquid A contains only water
 - D. all of the above
11. Why did the lady's plant turn brown?
- A. because alcohol dissolves chlorophyll
 - B. because people poured their cocktails in her flower pot
 - C. because alcohol is not good for plants
 - D. all of the above
12. The steps in the scientific method include:
- A. forming a hypothesis and drawing a conclusion
 - B. forming a hypothesis, gathering data, and drawing a conclusion
 - C. gathering data and forming a hypothesis
 - D. all of the above.
13. The outermost layer of a geranium leaf cell is called the:
- A. cell wall
 - B. cell membrane
 - C. nucleus
 - D. none of the above.

14. The best tree for making paper in Washington is the:
- A. fir
 - B. hemlock
 - C. cottonwood
 - D. cedar
15. How does a pulp mill make white paper from brown pulp:
- A. they grind it up
 - B. they bleach it
 - C. they dry it
 - D. they squeeze the water out of it
16. What word describes how a pulp mill smells?
- A. stink
 - B. sweet
 - C. sour
 - D. all of the above
17. What kind of alcohol is in wine and beer?
- A. ethyl
 - B. methyl
 - C. isopropyl
 - D. butyl
18. What living organism can make ethyl alcohol:
- A. bacteria
 - B. mold
 - C. yeast
 - D. mushrooms
19. To say that the brain damaging effects of all alcohols is "cumulative" means:
- A. they all damage brain cells
 - B. any brain cells killed by alcohol are not gotten back
 - C. they cloud the brain
 - D. all of the above.
20. One of the first signs of alcohol damage to brain cells is:
- A. nervousness
 - B. trembling
 - C. memory loss
 - D. bleeding

Students's Name Answer Key

OBSERVATION QUIZ FOR "THINKING WITH SCIENCE"

Quiz for Lesson 12 Quiz Number _____

1. A ☒ B C D E
2. ☒ A B C D E
3. A ☒ B C D E
4. ☒ A B C D E
5. ☒ A B C D E
6. A B C ☒ D E
7. A B C ☒ D E
8. A B C ☒ D E
9. A ☒ B C D E
10. A B C ☒ D E
11. A B C ☒ D E
12. A ☒ B C D E
13. ☒ A B C D E
14. A B ☒ C D E
15. A ☒ B C D E
16. ☒ A B C D E
17. ☒ A B C D E
18. A B ☒ C D E
19. A ☒ B C D E
20. A B ☒ C D E