

Student's Name _____

THINKING WITH SCIENCE

Observation Quiz

Lesson 9 (Angry Liquids)

1. The substance that we program our space probes to look for on other planets is:
 - A. rock
 - B. iron
 - C. water
 - D. oxygen

2. In order to ask the control question for "Does the red contain any water?", we change the word:
 - A. red to green
 - B. contain to embody
 - C. water to alcohol
 - D. any to only

3. What word should go in the blanks: "Does the green contain ---- food coloring and water?"
 - A. green
 - B. only
 - C. some
 - D. dark

4. When we mentally switched the food-coloring from one bottle to the other, what did the results prove?
 - A. red and green food-coloring have the same density.
 - B. the food-coloring doesn't matter.
 - C. the food-coloring doesn't have any effect.
 - D. all of the above.

5. An experimentation question always begins with the word:
 - A. when
 - B. does
 - C. why
 - D. if

6. A liquid which is clear, colorless, and more dense than water is:
 - A. corn syrup
 - B. alcohol
 - D. mineral oil
 - E. none of the above.

7. What did I use on my pancakes when I was a child?
 - A. margarine.
 - B. corn syrup
 - C. jelly
 - D. maple syrup
8. How do we know that corn syrup is more dense than water?
 - A. it sinks in water.
 - B. it floats on water.
 - C. it mixes with water.
 - D. none of the above.
9. What is a group of liquids that all float on water?
 - A. oil
 - B. alcohol
 - C. syrup
 - D. all of the above.
10. Where do cooking oils come from?
 - A. the ground.
 - B. plants.
 - C. animals.
 - D. none of the above.
11. Why is mineral oil called by that name?
 - A. it comes from a mine.
 - B. it comes from the ground
 - C. both of the above.
 - D. neither of the above.
12. Why shouldn't you use baby oil on burns, even though it is mostly mineral oil?
 - A. it's not really oil.
 - B. its fragrances irritate burns.
 - C. it's only for babies.
 - D. none of the above.
13. What characteristic of a substance determines whether it floats or sinks?
 - A. density
 - B. thickness
 - C. state of matter
 - D. none of the above.

14. The word "refute" means:

- A. repeat
- B. turn around
- C. prove false
- D. none of the above.

15. Why did Jar Y form 2 layers after it was shaken and then allowed to sit?

- A. oil and water don't mix.
- B. Y was oil and green was water.
- C. both of the above.
- D. neither of the above.

16. The salad dressing that would probably be more expensive would contain ____ layers.

- A. 1
- B. 2
- C. 3
- D. 4

17. What can you tell about the spices that form the bottom layer of a salad dressing?

- A. they are from foreign countries.
- B. they are more dense than the other layers.
- C. they contain pepper.
- D. they contain salt.

18. In a 4-layer salad dressing, how do we know that the spices that form the middle And bottom layer are different kinds of spices?

- A. they form 2 separate layers.
- B. they are different colors.
- C. they both sink.
- D. none of the above.

19. If an author makes a statement like "Joe and Frank are like oil and water", the author means:

- A. One of them is a slimy character.
- B. One of them is all wet.
- C. they don't get along.
- D. all of the above.

Students's Name Answer Key

OBSERVATION QUIZ FOR "THINKING WITH SCIENCE"

Quiz for Lesson 9 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