Student's Name_____

THINKING WITH SCIENCE
Observation Quiz
Lesson 18 (The Thermometers)

1. Fluids include:
   A. solids, liquids and gases.
   B. solids and liquids.
   C. liquids and gases.
   D. iron oxide.

2. In this experiment, the Zero time was the time:
   A. before dipping the thermometers in the fluids.
   B. before opening the jars.
   C. before reading the thermometers.
   D. all of the above.

3. At the Zero time, why did all of the thermometers read "70 degrees?
   A. they were not yet dipped.
   B. they were measuring the air temperature of the room.
   C. both of the above.
   D. neither of the above.

4. The manipulated variable in this focus was:
   A. the jars.
   B. the thermometers.
   C. the lids.
   D. the fluids.

5. Which of the following was not a controlled variable in this focus?
   A. jars.
   B. lids.
   C. thermometers.
   D. none of the above.

6. Why should you have known from the predicted results for 15 minutes that C contained air?
   A. It never changed.
   B. It stayed at 70 degrees.
   C. The jar had been opened.
   D. all of the above.

7. Why should no one have raised their hand with a guess when I described Fluid A as a clear, colorless liquid?
   A. There are over 100 clear, colorless liquids.
   B. all liquids are clear and colorless.
   C. all liquids are clear.
   D. none of the above.

8. Why do we look for water on other planets?
   A. it would indicate the possibility of life.
   B. it would mean that we would be able to drink it.
   C. it would mean that there were oceans at one time.
   D. none of the above.

9. If a conclusion is "reliable", that means that it is:
   A. final
   B. tentative
   C. supported
   D. refuted

10. The important difference between the fluids in Jars A, B, and C was:
   A. weight
   B density
   C. evaporation rate
   D. exchange rate

11. When a liquid changes to a gas, that process is called:
   A. evaporation
   B. crystallization
   C. freezing
   D. condensation

12. A familiar example of evaporation is when:
   A. liquid water changes to solid water.
   B. liquid water changes to steam
   C. solid water changes to a gas
   D. solid water melts

13. A liquid absorbs what when it evaporates?
   A. air
   B. oxygen
   C. heat
   D. light

14. After you get out of the water, you stop feeling cold when:
    A. you are dry.
    B. the water stops absorbing heat.
    C. there is no more water to evaporate.
    D. all of the above.

15. Why doesn't air evaporate?
    A. because it's not a liquid.
    B. because it's already a gas.
    C. both of the above.
    D. neither of the above.

16. When a liquid evaporates faster, it absorbs more:
    A. light
    B. air
    C. heat
    D. gas

17. Why does a drop of nail polish remover disappear faster than a drop of water?
    A. it is thinner.
    B. it evaporates faster.
    C. it isn't as dense.
    D. none of the above.

18. Which of these fluids would feel warmest if you put a drop on your skin?
    A. oil
    B. nail polish remover
    C. alcohol
    D. water

19. Where is a universal law true?
    A. everywhere on earth.
    B. everywhere in the solar system.
    C. everywhere in the universe.
    D. all of the above.

20 Why does nail polish remover feel the coldest on your skin?
    A. it is less dense.
    B. it evaporates fastest.
    C. it is thinner.
    D. all of the above.

Students's Name Answer Key

OBSERVATION QUIZ FOR "THINKING WITH SCIENCE"

Quiz for Lesson 18 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