

Student's Name _____

THINKING WITH SCIENCE

Observation Quiz

Lesson 16 (The Crystals)

1. Two ways that crystals form are:
 - A. cooling and heating of lava.
 - B. cooling of lava and heating of water.
 - C. heating of lava and cooling of water.
 - D. cooling of lava and evaporation of water solutions.
2. The slower that the process of crystal formation occurs:
 - A. the bigger the crystals are.
 - B. the more colorful the crystals are.
 - C. the more crystals there are.
 - D. all of the above.
3. A good place to find crystals is:
 - A. on a beach.
 - B. in the gravel of a dry stream bed.
 - C. at the bottom of a lake.
 - D. on a mountain top.
4. Why did the experiment use 3 identical bowls?
 - A. It was a controlled variable.
 - B. So that you could see through them.
 - C. They were all that were available.
 - D. All of the above.
5. In this focus, the manipulated variable was:
 - A. the kind of water.
 - B. water
 - C. the way the crystals formed.
 - D. the size of the crystals.
6. A controlled variable in this focus was:
 - A. water
 - B. bowls
 - C. temperature
 - D. all of the above.

7. What happened to the water that was originally in the bowls?
- A. It condensed.
 - B. It got hot.
 - C. It froze.
 - D. It evaporated.
8. When small amounts of salts are present in tap water, what do we call them?
- A. ions
 - B. molecules
 - C. minerals
 - D. abundant
9. When water evaporates, what is left behind?
- A. everything that was in it.
 - B. mud.
 - C. sodium chloride.
 - D. potassium sulfate.
10. When we turn a liquid into a gas, and then turn the gas back into a liquid, the process is called:
- A. boiling
 - B. freezing
 - C. distilling
 - D. purifying
11. If you distill water, how long do you have to heat it?
- A. until it forms crystals.
 - B. until it boils.
 - C. until it forms a solid.
 - D. until it disappears.
12. Which of the following substances can be purified by distilling?
- A. gasoline
 - B. water
 - C. alcohol
 - D. all of the above.
13. Which of the following salts is found in sea water?
- A. sodium chloride.
 - B. potassium nitrate.
 - C. iron sulfide.
 - D. all of the above.

14. What color are most iron salts?

- A. white
- B. yellow
- C. red
- D. brown

15. The common name of iron oxide is:

- A. salt
- B. rust
- C. ox iron
- D. copper sulfate

16. What color are most salts?

- A. white
- B. yellow
- C. red
- D. brown

17. Where would be a good place to find water containing a lot of iron?

- A. a hot spring
- B. a river
- C. a lake
- D. city water

18. Water flowing through cracks in a mountain can form:

- A. rivers
- B. creeks
- C. hot springs
- D. pools

19. Why can you get too much mineral water?

- A. if that's all you drink for 7 or more days.
- B. it builds up in your intestine.
- C. it can kill the lining of your intestine if it builds up.
- D. all of the above.

20. Why is it all right to drink sea water for up to 3 days?

- A. that much won't harm you.
- B. that much won't kill the lining of your intestine.
- C. it takes 7 days of drinking sea water to harm you.
- D. all of the above.

Students's Name ANSWER KEY

OBSERVATION QUIZ FOR "THINKING WITH SCIENCE"

Quiz for Lesson 16

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