

Name \_\_\_\_\_

Period \_\_\_\_\_

## Properties of Water Webquest

To complete this webquest, use the links at <http://water.usgs.gov/edu/waterproperties.html> You can also get to this website from our class website.

### Click on 'Facts about Water'

1. What makes water so unique?

\_\_\_\_\_

2. Why is water called a 'universal solvent'?

\_\_\_\_\_

3. What does it mean to have a pH of '7'?

\_\_\_\_\_

4. Can pure water be found in nature? \_\_\_\_\_ is pure water a good conductor of electricity? \_\_\_\_\_

5. What does it mean to have a 'high specific heat'?

\_\_\_\_\_

6. What does it mean to have a 'high surface tension'?

\_\_\_\_\_

7. What does capillary action do for plants and animals?

\_\_\_\_\_

### Click on 'The Universal Solvent' on the left hand side of the screen.

8. Why is water being a universal solvent important to living things?

\_\_\_\_\_

9. What is a 'polar' arrangement?

\_\_\_\_\_

10. Explain how our kidneys filter water and how the universal solvent property is important in that process.

\_\_\_\_\_

11. Explain why salt dissolves in water so easily.

\_\_\_\_\_

\_\_\_\_\_

### Click on 'Cohesion and Adhesion' on the left hand side of the screen.

12. What is cohesion?

\_\_\_\_\_

13. What is adhesion?

\_\_\_\_\_

14. Explain how cohesion and adhesion create water droplets that stick to things.

\_\_\_\_\_

### Click on 'Capillary Action' on the left side of the screen.

15. What is capillary action?

\_\_\_\_\_

16. What 2 properties of water make capillary action possible?

\_\_\_\_\_

17. Explain how plants and trees wouldn't survive without capillary action.

\_\_\_\_\_

\_\_\_\_\_

**Click on 'Surface Tension' on the left side of the screen.**

18. What causes surface tension? \_\_\_\_\_
19. What is the definition of surface tension? \_\_\_\_\_  
\_\_\_\_\_
20. How does the surface tension of water compare to the surface tension of other liquids?  
\_\_\_\_\_
21. Explain 2 real life examples of surface tension
- a. \_\_\_\_\_
- b. \_\_\_\_\_

**Click on 'Density and weight' on the left side of the screen.**

22. What is density? \_\_\_\_\_

Use the chart to answer the next 2 questions.

23. When water is heated, what happens to its density? \_\_\_\_\_
24. When water freezes, what happens to its density? \_\_\_\_\_
25. Why is water less dense when it is in a frozen state? \_\_\_\_\_
26. Why is the density of water so important to life on earth? \_\_\_\_\_  
\_\_\_\_\_

**Click on 'pH' on the left side of the screen.**

27. What can the pH of water in nature indicate? \_\_\_\_\_
28. What is pH? \_\_\_\_\_
29. How much more acidic is a pH of 5 compared to a pH of 6? \_\_\_\_\_
30. What is the importance of the pH of water to living things? \_\_\_\_\_
31. What number on the pH scale is the most acidic? \_\_\_\_\_ which number is the most alkaline? \_\_\_\_\_
32. What is the pH range of the water in Utah? \_\_\_\_\_

**Click the back button. Click on 'heat capacity' on the left side of the screen.**

33. What does it mean for water to have a high heat capacity? \_\_\_\_\_  
\_\_\_\_\_
34. How does the heat capacity of water help to regulate the climate and seasonal temperatures?  
\_\_\_\_\_