

Textbook pp. 46-51

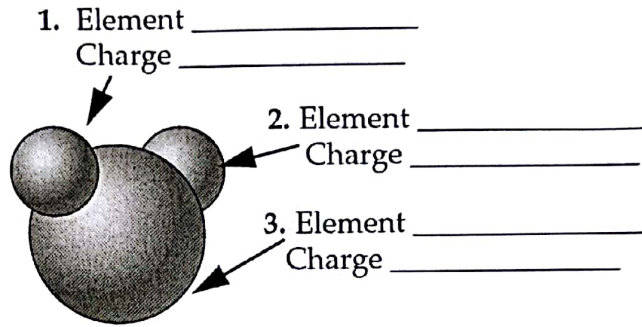
The Properties of Water

Understanding Main Ideas

Label the parts of this water molecule by writing the name of the element and the electrical charge in items 1 through 3.

Answer the following questions on a separate sheet of paper.

4. Why is water considered a polar substance?
5. Which state of water allows fish to remain in a lake when winter temperatures are below 0°C? Explain.
6. What happens to the molecules of water vapor when the temperature of the gas cools to 100°C?
7. Why is water often called the "universal solvent"?



Building Vocabulary

Match each term with its definition by writing the letter of the correct definition in the right column on the line beside the term in the left column.

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|---------------------------|--|
| _____ 8. capillary action | a. a mixture that forms when one substance dissolves another |
| _____ 9. condensation | b. form of a substance, including solid, liquid, or gas |
| _____ 10. evaporation | c. the tightness across the surface of water caused by the polar molecules pulling on each other |
| _____ 11. specific heat | d. the process by which molecules at the surface of a liquid absorb enough energy to change to the gaseous state |
| _____ 12. solution | e. the combined force of attraction among water molecules and with the molecules of surrounding materials |
| _____ 13. solvent | f. the process by which a gas changes to a liquid |
| _____ 14. state | g. a substance that dissolves another substance |
| _____ 15. surface tension | h. the amount of heat needed to increase the temperature of a certain amount of a substance by 1°C |