

Name: _____

Date: _____

Class: _____

TEST | Chapter 6: Thermal Energy & Heat

MULTIPLE CHOICE

Circle the letter of the correct answer.

- On which temperature scale does water boil at 100 degrees?
 - Fahrenheit
 - Celsius
 - Kelvin
- Temperature is a measure of the average _____ of each particle in an object.
 - kinetic energy
 - heat
 - potential energy
- Heat is _____.
 - moving thermal energy
 - moving potential energy
 - moving kinetic energy
- Heat transfer in a moving fluid is called _____.
 - radiation
 - conduction
 - convection
- Heat moves _____.
 - in all directions
 - from cooler objects to warmer objects.
 - from warmer objects to cooler objects.
- A winter coat is made of materials that are good _____.
 - conductors
 - refrigerants
 - insulators
- Which state of matter has particles that move the most?
 - solid
 - liquid
 - gas
- The change of state from a liquid to a solid is _____.
 - melting
 - vaporization
 - freezing

9. An object usually gets _____ when the temperature increases.
- bigger
 - colder
 - smaller
10. If you want to know the amount of heat needed to raise the temperature of 2 kg of steel by 10°C, you need to know steel's _____.
- state
 - thermal energy
 - specific heat

FILL IN THE BLANK

Read the words in the box. In each sentence below, fill in the correct word. Not all words will be used.

solid	convection	conductor
thermal	radiation	vaporization

11. The total energy in all of the particles in a substance is _____ energy.
12. The transfer of energy by electromagnetic waves is _____.
13. A change of state from a liquid to a gas is _____.
14. The particles in a _____ are packed in fixed positions.
15. A _____ conducts heat well.

TRUE OR FALSE

If a statement is true, write true. If it is false, write false AND change the sentence to make it true.

- _____ 16. Water freezes at 0° Fahrenheit.

- _____ 17. Heat is the transfer of thermal energy.

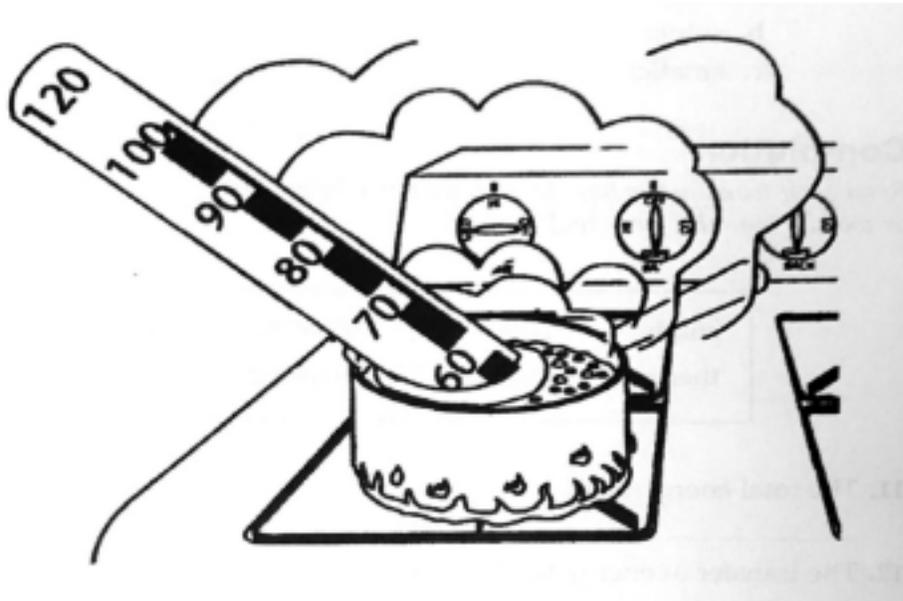
- _____ 18. A conductor does not allow heat to move easily.

- _____ 19. The particles of a gas move quickly.

- _____ 20. A temperature reading of zero on the Celsius scale is equal to absolute zero.

USING SCIENCE SKILLS

The picture below shows a pan of water on a stove. Use the picture to answer questions 21, 22, and 23.



21. What temperature scale does the thermometer use?

- a. Celsius
- b. Kelvin
- c. Farenheit

22. What change of state is happening?

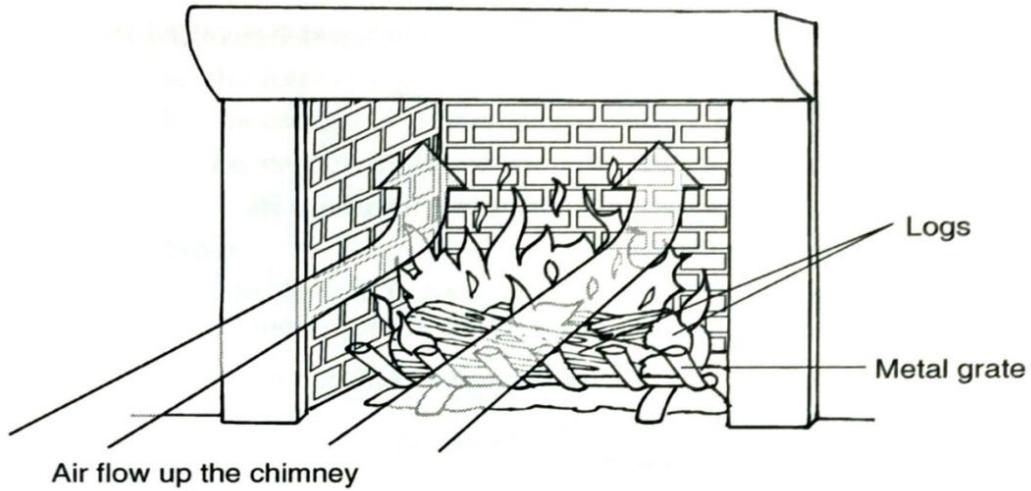
- a. melting
- b. boiling
- c. freezing

23. The handle of the pot is cool, even though it's on a hot stove. What kind of material was used to make the pot's handle?

- a. conductor
- b. thermometer
- c. insulator

USING SCIENCE SKILLS

The picture below shows a fireplace. Use the picture to answer questions 24 and 25.



24. The air moving up the chimney transfers heat in what way?

- a. radiation
- b. convection
- c. conduction

25. The metal grate under the logs is touching the hot logs. It is heated by _____.

- a. conduction
- b. convection
- c. radiation