COMMENTS: Conduction is the transfer of heat from molecules to adjoining molecules by collision. Solids are better conductors of heat than liquids; liquids are better than gases. Molecules of most solids are closer together than those of liquids, and the molecules of liquids are much closer together than those of gases. Any material through which heat is easily conducted is called a conductor. This is one reason metals are used in making cooking utensils. Other materials such as cloth and wood are nonconductors.

A Underline the correct answers.

1. Heat can be (a. transferred b. controlled).
2. Molecules make up (a. solids b. liquids c. gases).
3. Molecules are held together by (a. cohesion b. magnets).
4. Solids are better conductors of (a. heat b. air c. gases) than liquids.
5. Liquids have better (a. attraction b. conduction) than gases.
6. Some materials are better (a. conductors b. sources of energy) than others.
7. Iron is a good (a. conductor b. energy waster c. nonconductor).
8. Gases make (a. poor conductors b. good conductors c. strong attractions).
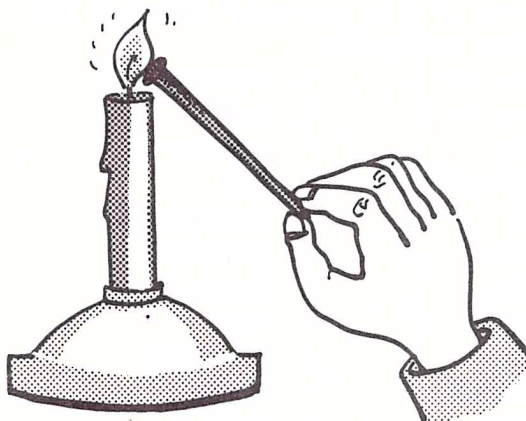9. Metal is a good conductor of (a. heat b. electricity).

B True or False

___T___ 1. Conduction works because molecules collide.
_____ 2. Paper makes a good heat conductor.
_____ 3. Cooking utensils are made of metal because metal is a good conductor.
_____ 4. Wood is a nonconductor.
_____ 5. Liquids cannot conduct any heat at all.
_____ 6. Cloth is a nonconductor.
_____ 7. Heat is a form of energy.
_____ 8. Friction cannot cause heat.
_____ 9. Wood is very combustive.

C Place an X by each word that could tell about conduction.

1. molecules **X**
2. attraction
3. listen
4. material
5. see
6. solids
7. watch
8. heat
9. hours
10. metals
11. ticking
12. cooking
13. carpet
14. hot
15. combustion
16. hear
17. together
18. look
19. conductor
20. gases
21. liquids
22. time
23. transfer
24. seconds
25. water
26. wall
27. collision
28. cotton

Conduction

Hold a large nail with its head in a small flame. What happens to the temperature of the nail?