Heat Webquest

Go to http://utah.pbslearningmedia.org/resource/lsps07-sci-phys-thermalenergy/thermal-energy-transfer/

Click on the LAUNCH button.

Introduction

1. Heat moves from warmer to cooler areas through the transfer of _____ _____.

Overview

2. What happens to the speed of the green particles as the temperature gets warmer?_____
3. The energy of motion is known as _____ energy.
4. Thermal energy "flows" from _____ areas to _____ areas.

Conduction

5. Some materials, such as _____ are better than others at conducting thermal energy.
6. Push the "play" button. In what direction do the particles turn red with heat?_____ Explain._____

Convection

7. _____ transfers thermal energy by the movements of fluids.
8. Push the "play" button. What happens to the temperature of the currents as they move up?

   _____
9. What happens to the temperature of the currents as they move down?_____

Radiation

10. Radiation transfers thermal energy through _____ _____.
11. Push the "play" button for radiation.
12. All objects _____ and _____ thermal radiation.

The Sun Warms Earth

13. Most conduction occurs at Earth's _____
14. _____ currents in the atmosphere distribute thermal energy around Earth.
15. Global _____ circulation also distributes thermal energy around Earth.
16. What is Earth's main source of thermal energy?_____

Around a Campfire

17. Why is a tree twig a better choice than a metal rod for roasting marshmallows?
    _____
18. Where does the warmth you feel when sitting near a campfire come from?_____

Staying Cool on a Hot Day

19. Your body loses thermal energy to the environment by _____.

Solar Energy in Your Home

20. A home loses thermal energy to the colder outdoors by _____ Through the walls, windows, and roof.

Go to https://www.lowes.com/cd_Understand+Heat+Transfer+and+Insulation_97468041D_

After you read this article, list 5 ways in which you can protect your home from heat escaping or too much heat coming in.

1-
2-
3-
4-
5-

Go to https://www.energystar.gov/index.cfm?fuseaction=popuptool.atHome

Look in the rooms on how to save energy. List 10 ways in which you can save heat energy in your home.

1-

2-

3-

4-

5-

6-

7-

8-

9-

10-