

Unit C: Chapter 1 Study Guide

Complete each statement.

1. A hot drink will always become _____ if it sits at room temperature.
2. The ability to do work or cause a change in matter is _____.
3. Wood, plastic, air, and other _____ slow the transfer of heat.
4. Wind currents are caused by a transfer of heat called _____.
5. The temperature of a substance depends on the material and the _____ of the substance.
6. When a substance is heated, moving particles that make up the substance always _____ in speed.

Label each picture or description to tell how heat is being transferred. Use these terms: convection, conduction, and radiation. (Learn their meanings, more examples will be on the test!)

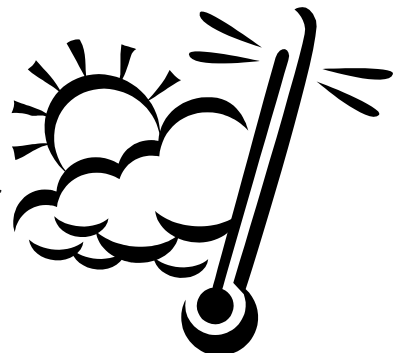


Stir-fry food is quickly heated in a wok, due to _____

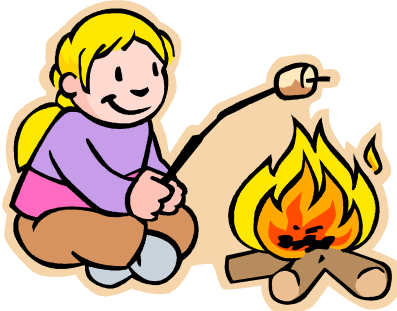


As this soup is heated, the liquid gets warmer throughout the entire pot due to _____

The sun's energy travels through space and air by _____ to warm the alcohol in the thermometer



Leaves rise up into the air with a warm air current, then fall back to earth on the cool wind; the air temperature changes by _____ and causes the wind to blow.



This marshmallow is roasted with heat from the campfire that travels by _____.

Raw eggs are cooked as the heat from the stove burner moves through the pan and into the eggs using _____



Answer these questions with complete sentences. Be as detailed as possible.

1. If you inflate a balloon and put it outside on a cold day, the balloon shrinks. Why does this happen?

2. If you remove a tray of ice from the freezer, does the heat flow from the ice to the air, or from the air to the ice? Explain your answer.



Tell what will happen in each situation. Will the substance become a solid, liquid, or a gas?

1. You place a cup of soda into your freezer and leave it for several hours. When you take it out, what state is it in? _____

2. A group of students visited Moon Marble Company. They watched the owner demonstrate the process of creating hand-made marbles. He took a solid stick of glass and added heat with a torch. Eventually, the glass became a thick _____.

3. You want to make hot chocolate to warm yourself up after playing in the snow. You place two cups of water in the microwave and turn it on for several minutes. When you remove your measuring pitcher, you notice that there are only one-and-a-half cups of water left in it. In what state is the remaining water from your original two cups?

4. You drop your popsicle on the ground one hot, summer day. Within minutes, enough heat has been added to change the state of your popsicle into _____.

5. Several hours later, you return to the location of your dropped popsicle. Only a red stain is left on the ground! The rest of the popsicle has become a _____.

6. A worker in the bell foundry pours molten bronze into a mold. Several days later, after most of the heat has left the bronze, the mold is opened. In what state is the bronze now? _____