

# Movement of Energy

Name: \_\_\_\_\_

Period: \_\_\_\_\_

As you examine the pictures, fill in the blanks below.

boil energy hotter



The flame is making the water in the kettle \_\_\_\_\_ .

The flame is adding \_\_\_\_\_ to the water.

As more energy is added to the water in the tea kettle, the water will soon begin to \_\_\_\_\_ .

energy less steam



As the water boils, \_\_\_\_\_ comes out of the kettle.

The longer the water boils, the \_\_\_\_\_ water remains.

So, add enough \_\_\_\_\_ to water, and water changes into steam.

drop energy flame hotter steam



Think about what happens when you want to cook some vegetables. They are cut up and dropped in boiling water. The \_\_\_\_\_ from the water goes into the vegetables, making them \_\_\_\_\_ and cooking them. The energy from the \_\_\_\_\_ under the pot keeps the water boiling.

Some of the water escapes as \_\_\_\_\_ , causing the water level in the pot to \_\_\_\_\_ .

boil energy hot steam swim



You now know that adding enough \_\_\_\_\_ to a liquid like water will soon make it \_\_\_\_\_. This means that the water has gotten really \_\_\_\_\_ , and is changing into \_\_\_\_\_. If you see a boiling liquid, like this lake in Yellowstone Park heated by volcanic activity, you definitely do not want to take a \_\_\_\_\_ !

**turn over for more**

# Movement of Energy

Name: \_\_\_\_\_

Period: \_\_\_\_\_

added frozen lost rain snow solid



Now let's look at what happens to water when energy is removed. As temperatures get colder, \_\_\_\_\_ (water) will turn into \_\_\_\_\_ (ice). Energy was \_\_\_\_\_ from the water, so the water changed from a liquid to a \_\_\_\_\_. Until enough energy is \_\_\_\_\_ to the ice, the water will remain \_\_\_\_\_.

energy liquid solid sunlight



As winter ends and spring begins, energy from \_\_\_\_\_ begins to warm the air. This \_\_\_\_\_ is added to the ice and snow, and soon the \_\_\_\_\_ water changes into \_\_\_\_\_ again.

bacteria freezer remove spoil



Removing energy is also important for preserving food. The \_\_\_\_\_ in your garage or in your refrigerator has a motor in it that moves chemicals around that \_\_\_\_\_ heat energy. The colder your food is (especially meat), the harder it is for the meat to \_\_\_\_\_. Keeping meat frozen prevents \_\_\_\_\_ from making the meat rotten.

## SUMMARY

add add cooler remove remove warmer

Adding energy makes things \_\_\_\_\_. Removing energy makes things \_\_\_\_\_.

To make a solid like ice change into a liquid like water, you must \_\_\_\_\_ energy.

To make a liquid like water change into a solid like ice, you must \_\_\_\_\_ energy.

To make a liquid like water change into a gas like steam, you must \_\_\_\_\_ energy.

To make a gas like steam change into a liquid like water, you must \_\_\_\_\_ energy.