

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: _____

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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

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.