KCS @ home

Summer Edition

Fourth Grade Science

Activity 2

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4th Grade Science: Activity 2
Which will become ice faster, hot or cold water?

Directions: This handout can also accompany a KCSatHome Teacher Video. If you have access to the video, watch the video before doing this activity. You can find the videos at https://www.knoxschools.org/Page/21816

Energy is found everywhere. But, what is energy? Energy makes things happen; it is the ability to do work.

There are several forms of energy: heat energy, light energy, sound energy, and electrical energy, and motion energy. (just to name a few).

Heat energy is found in a burning fire. Light energy is given off by light bulbs and stars. Sound energy is found in the clapping of your hands, the loud cheers at a UT sporting event, and the beat from your favorite song. Electrical energy is all around us: lightning in the sky and the electricity in your home to power items. Motion energy is kids running and playing and a fish swimming.

Heat energy is everywhere. Can it be found even in cold items?

Which will become ice faster, hot or cold water?

Form your hypothesis and write it on the following lines.

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Materials: 2 styrofoam cups, hot water and cold water from the sink, pencil or pen, clock or something to measure time, and your freezer

Procedure:

1) Ask an adult to assist you. Label one cup as cold and the other as hot. Fill the cup that is labeled as hot with very hot water (be careful) and the other cup with very cold water.

2). Put both cups in the freezer and check every 10-15 minutes. Record which cup begins to freeze first.

3). Leave them in the freezer for a full day. Take them out and see if there is any difference in the ice cubes.

4). What is your conclusion after observing the cups? Did both cubes end up being the same size? Write your conclusion and observations.

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