

# Grade 3

## Week 4

### COOLING DOWN!

#### MATERIALS:

Four jars with lids  
Hot water  
Newspaper  
Wool scarf or small blanket  
Thermometer  
Shoebox or box  
Rubber bands

#### PROCEDURE:

1. Remove the lids from the four jars and fill with hotwater.
2. Put the lids back on.
3. Put one jar in a box and stuff newspaper loosely around it.
4. Wrap a layer of newspaper around another jar holding it in place with rubber bands.
5. Wrap the scarf or blanket around the third jar.
6. Leave the last jar without any wrapping so you can see how much effect the different wrappings have.
7. Place the jars in a cool room for about half an hour and then take the temperature of the water in each jar with the thermometer.
8. Record the temperature for each jar. Which jar contains the warmest water?

#### HOW IT WORKS:

The warmest jar is the one that has been protected from the cool air in the most efficient way. This protection is called "insulation". The insulation works by keeping a layer of air trapped between the warm water and the cool outside. People put insulating material in the roofs and walls houses to stop the heat from escaping. Look up the word "insulation" in your dictionary for a better understanding.