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Earth Science  
Grade: 1  
Measuring the Temperature Inside and Outside of the Classroom

Objective/Purpose: After the children have learned about the different types of weather, this activity will help the children understand how to measure different weather conditions through the use of thermometers. The main purpose is for the children to learn how a thermometer works and its role in measuring the temperature.

QCC: 15, 16, 17, 18

Materials/Time Required:

1. Thermometer  
2. White piece of paper  
3. Red crayon  
4. Pencil

Background Information:

This activity is taken from Harcourt Science (D8). This has been one of the most successful lessons since I noticed that children were challenged by this activity while they also enjoyed it very much. Moreover, this lesson captivates children’s attention because it forces the children to get heavily involved. As an introduction, it may be good to show different kinds of thermometer whether through pictures or actually bringing different thermometers such as the ones used in labs and hospitals. Before starting this experiment, I explained the roles of a meteorologist. Also, a clip from evening news with a meteorologist can be shown to the children as well. Through this lesson, the children are given an opportunity to study weather and give their own weather reports. Similar to meteorologists on the television, the children will explain to their classmates the temperatures of inside and outside of the classroom.

Preparation:

First, measure the temperature of the classroom. Then, get the children in a single file line and go outside to measure the temperature. Be sure to allow the children figure out the temperature by looking at the thermometer. It may be wise to put the thermometer at the respective place for about five minutes. Afterwards, the students can draw their very own thermometers for both temperatures. If the time permits, the children can come and present their weather reports or they can do their presentations the next day.  

Safety Issues:

If the children handle the thermometer, then make sure that you are carefully watching them because they can easily break the thermometer which usually contains Mercury.
Please explain to the children about carefully holding the thermometer and the safety procedures in case they break the thermometer. Alternatively, alcohol thermometers are available to avoid these problems.

**Activity Outline/Teacher Procedures:**

As the children are looking at the thermometer to measure the temperature, be sure to give the children the opportunity to do it by themselves. However, it may be helpful to ask questions to challenge them and to make sure they really understand what they are doing. Also, while the children are drawing their thermometers, go around making sure they are drawing them correctly.

**Possible Questions:**

1. Which thermometer shows a warmer temperature?
2. How is the temperature different inside and outside?
3. If the activity was conducted during the summer, how will the temperature change?

**Assessment/Evaluation:**

These are some of the possible questions to think about for the evaluation of the activity. What were some problems children had in understanding how the thermometer works? Did all the children enjoy the activity? Did the children draw the thermometer correctly? How were the drawings of the thermometer different for each student?