Objective/Purpose:
The purpose of this activity was to allow the students to conduct a scientific inquiry using materials and ideas from previous lessons. The students were presented with a scientific problem and allowed to make a hypothesis pertaining to the problem. They used skills of estimation and past observations to help with the formulation of their predictions. As an extension to the prediction activity, the students later created winter scenes from *A Snowy Day* using bell pepper shells.

QCC:

   Standard: Asks questions, makes and keeps simple records of observations, sorts objects, communicates with others, and makes predictions and uses estimation and measurement.

2. Topic: Reference Skills
   Standard: Uses books and other media to obtain information related to science concepts.

Materials:

- *A Snowy Day* by Ezra Jack Keats
- Large block of ice (approximately eight ounces)
- Large tray for collecting melted ice
- Poster board to record student predictions
- Epsom Salt
- Dark and light colored construction paper
- White Paint
- Paintbrushes
- Paint trays
- Half-dozen Bell Peppers

Background Information:
The class had been discussing the seasons in general and winter in particular over the last few weeks. Many of the students had previously read *A Snowy Day* during PreK and were familiar with the events of the book. (most specifically, the part concerning the snowball melting in the child’s pocket) Also, there had been an ice storm in the Athens area over the previous weekend. These two events allowed the students to be familiar with the concepts of snow and ice and the small amount of time it takes for it to melt in the presence of a warm environment, such as the classroom.

Preparation:
I had used an eight-ounce plastic container to make a block of ice the previous night. I had also prepared a chart with various timeframes (e.g. “at the end of recess” and “at the
end of lunchtime”) indicated on it so that the students would have choices to select when asked how long they thought it would take for the ice to melt. I also gathered enough bell peppers for the class (approximately a half-dozen) to do their winter scene on the construction paper and cut these bell pepper in cross-sectional halves. I also removed the seeds from the halves as much as possible. Once I arrived in the classroom, I placed the block of ice onto a tray to collect any water runoff and also for easier viewing of the melting process.

Safety Issues:
None.

Activity Outline/Teacher Procedure:
The teaching period that I participate in is divided into two portions: a large group and a small group. During the large group, the students sit on their mats in the floor in front of the teacher. I used this time to introduce the students to the chart and go over with them the different categories. I also discussed with the students the events of the previous weekend when an ice storm passed through the Athens area, being sure to focus on how much time they remembered it taking for the ice to melt. I then showed them the book we were to read together, *A Snowy Day* by Ezra Jack Keats. In the book, a young boy experiences the joys of snow but realizes that the snow cannot be brought home; it quickly melts inside of his pocket once the boy enters back into his warm house. The students were able to recognize these events during the reading of the book, and after the book was completed, we discussed why the snowball melted once the boy entered his house. After a sufficient time, I once again brought out the poster and reiterated what time period each category displayed. I then asked the students to select which category corresponded to how long they believed it would take for the entire block of ice to melt. I tallied up their votes onto the chart, making sure that each student got his/her vote counted and tallied. After the votes were recorded, I placed the block of ice and tray on a countertop so that the students would be able to observe the extent of the ice’s melting. At certain intervals during the remainder of the class, the students and I would check the ice to see how much of it had melted and discuss these observations.

The small group portion of the class followed the large group portion. During the small group, I had each group of students select a dark or light color of construction paper for a “night” or “day” winter scene, respectively. They then were each given a half of a bell pepper and allowed to dip the pepper into the white paint and “stamp” the imprint onto the construction paper. After the students completed their scenes, they were allowed to lightly coat the Epsom salt and water mixture onto their construction paper for a glossy and wintry effect.

Possible Questions:
- What made the snowball in the boy’s pocket from *A Snowy Day* melt?
- What would make the block of ice melt more quickly?
- Why did you select that length of time for the block of ice to melt?
- How exactly did you manage to get paint inside of your ear?
Assessment/Evaluation:

The students actually enjoyed this activity more than I expected, and I found myself quite surprised at the students’ fascination with the melting ice. I must admit I never would have thought the students would have remained so engaged to something so seemingly mundane. I was also rather fortunate; the recent ice storm greatly helped them to relate to the activity and allowed them to easily form a reasonable estimate on how long it should take for the ice to melt.

The lesson was easy to prepare and fairly cheap to conduct. My teacher had trays, paint, and construction paper already in the classroom, and so all that needed purchasing was the bell peppers and the Epsom salt. This lesson easily allowed the teacher to ensure that the children stay active and involved. The process of observing the ice kept the students attentive and engaged in the lesson, and the book served as a perfect catalyst for discussion. The students were allowed to keep their winter scenes, which will serve as reminders to them of the lesson and the process of scientific inquiry.