

### **L04--Technology Implementation Report**

#### INTRODUCTION:

This project was implemented in a 4<sup>th</sup> grade, inclusive classroom. There were eighteen students in attendance on the day Rosie, and I, taught our lesson. One of the students had autism; no other learning or physical disabilities were indicated. The lesson we taught was appropriate for all students in the class. The activity fit into the curriculum by integrating the subject matter that the students were currently learning in science into the technologically-based lesson.

#### OBJECTIVES/UNDERSTANDING GOALS:

1. Students will respond with accuracy to teachers' questions regarding information imparted during PowerPoint presentation.
2. Students will exhibit positive behaviors (e.g. listen to instructions, follow directions, stay on task) during all three activity stations.
3. Students will accurately complete the specified assignment at each activity station with attention to purpose.

#### MATERIALS:

The materials used in this project included: a PowerPoint presentation detailing how the relationship between the sun and earth causes the seasons; a globe on an axis to demonstrate the process of rotation and revolution; a flashlight to represent the sun; day and night website to give students opportunity to see what parts of the earth are currently experiencing daylight, and which parts are experiencing night; day and night worksheet to allow students to record their observations from the website; marshmallows, toothpicks, cocoa mix, powdered orange drink, and paper muffin cups required for the students to create a model of day and night during the equinox and solstice; "Reasons for Seasons Cloze" worksheet used to check students retention of information presented by teachers through PowerPoint.

#### DESCRIPTION:

Lesson began with a PowerPoint presentation describing the correlation of the earth and sun with the four seasons. Topics included:  
What is a day? A year?  
The process of rotation and revolution.  
How the tilt of the earth affects the seasons.

During the PowerPoint presentation, a physical demonstration of the earth's rotation and revolution, and how this process causes the changing of the seasons, was performed as Rosie used a flashlight to represent the sun by shining the light on the globe as I revolved around her while spinning the globe.

Concluding the PowerPoint presentation, Rosie and I engaged students in a musical depiction of the seasons by playing clips from each of the four concertos in Vivaldi's *The Four Seasons*, and asking students to choose which season they thought was being represented by each of the clips.

Following the PowerPoint presentation, we divided the students into three groups of six. Each group was assigned to a different activity station. Rosie assisted the students who were assigned to the "day and night" website station in navigating the website, and in completing their "day and night" worksheet. I attended to the students who were assigned to the "marshmallow activity" station, where we created visual models of the way day and night occur during the equinox and the solstice, by coating the marshmallows accordingly with various amounts of chocolate and orange powder to represent day and night. The third station was monitored by the students' classroom teacher, Ms. Joyce Lowry. This station consisted of the "Reasons for Seasons Cloze" worksheet. Students worked individually on this assignment, retrieving information discussed during the PowerPoint presentation.

Students spent ten minutes at each station, transferring to the next station when the time was up. Each group rotated to each of the three stations, enabling every to student participate in all activities.

#### EVALUATION PROCEDURE:

**Formative:** Students' responses to the questions asked regarding the material covered during the PowerPoint presentation; students' listening behavior and ability to follow directions while at each of the three activity stations.

**Summative:** Students' answers to the questions on the "day and night" worksheet, and the "Reason for Seasons Cloze" worksheet. The majority of students made less than two errors on either worksheet.

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