

### **Implementing a Model Lesson Plan**

I implemented the 24 Hour Temperature Cycle lesson plan in my classroom. Since I am taking this course during summer vacation, I did not have the opportunity to use this in a whole class setting. I taught this lesson to a small group of 2 students during a tutoring session. The students were in my third grade class and will be entering fourth grade in September. I used my SMARTBoard to display the Power Point presentation as well as to model the use of the Internet to the students. For the most part, I followed the model lesson but just added a few scaffolds to further support my students.

To meet the needs of my students, I made a few modifications to the lesson plan. To activate their prior knowledge, I started with a review of their understanding of time, including how many hours in a day and the difference between A.M. & P.M. I wanted to make sure the students understood these concepts so that they could build on that understanding to grasp the concept of *Earth's storage and release of energy received from the sun*. I also started boiling a pot of water at the beginning of the lesson and told students that we would refer to it later in the lesson. I wanted the students to have hands on experience with the metaphors, so we turned on and off the lights, and observed the boiling water and discussed what was happening as the water heated and cooled. I found it to be beneficial for students to have the visual and hands on experience as they compared the metaphors to the cooling and heating of the Earth. I also modeled how to use the simulation and spreadsheets and helped point out significant data on the charts.

There were many benefits to using the Internet for teaching the lesson. The students loved the visual demonstration of the Earth. Students were able to independently find the coolest and hottest part of the day and at the same time they were seeing a depiction of how the sun hits the Earth as it rotates. From this simulation: (<http://edutech.msu.edu/pd/24hourTemp/RotatingEarth.html> ), students drew their own conclusions and shared insightful explanations. I also found it beneficial to use an inquiry-based approach to teach this lesson. The students were engaged, active, and interested in seeing if their ideas were correct. Students also had the opportunity to “turn and talk” to each other which gave them time to discuss their ideas and formulate hypotheses. A challenging part of the lesson was the fog and thunderstorm concepts. It seemed to be a very quick concept that I brought up but did not explain or address well enough. Students didn’t grasp the idea and were left a little confused.

Using the technology to support teaching and learning was extremely helpful in meeting my educational goals. Using the simulations available on the Internet, the students were able to find the answers to the questions and see a visual to aid in their understanding. Instead of just telling students the answers, students formed their own conclusions and were encouraged to participate and share their ideas. Without the use of the Internet, I would have used a more didactic approach where I read and gave out information to students without getting them involved or interested in the topic. Using a textbook would not have had the same effect as using the simulation of the rotating Earth that the Internet provided.

If I taught this lesson again, first and foremost I would like to change the simulation to the 24 Hour Temperature Cycle of California instead of Michigan. Having

my students learn about California's 24-hour cycle is more applicable and interesting for my students. I would also use United Streaming videos:

<http://streaming.discoveryeducation.com/> to aid in helping students understand the thunderstorm and fog concepts. I really enjoyed teaching this lesson and I am eager to implement more lessons like this in my classroom this year. I think using Internet and inquiry-based lessons, especially for science, opens up a realm of opportunities that focus on real world applications while encouraging students to be active and engaged learners.