

**Project FOCUS  
Best Lessons  
SECOND GRADE**

**Title of Lesson: Fog and Lightning**

**Theme: Physical Science**

**Unit Number: 2      Unit Title: Seasonal Changes and the Sky**

**Performance Standard(s) Covered (enter codes):**

S1CS3

S1CS5

**Enduring Standards (objectives of activity):**

**Habits of Mind**

- Asks questions
- Uses numbers to quantify
- Works in a group
- Uses tools to measure and view
- Looks at how parts of things are needed
- Describes and compares using physical attributes
- Observes using senses
- Draws and describes observations

**Content (key terms and topics covered):**

Physical Changes involved in weather.

**Learning Activity (Description in Steps)**

**Abstract (limit 100 characters):** Students will learn how fog and lightning are made by participating in two simple activities.

**Details: Background Information:**

I found this lesson on this website:<http://www.weatherwizkids.com/WxExperiments.htm>.

We started the class by talking about what their idea of what weather was, and I helped develop their ideas more clearly. Reading a book and looking at pictures would help the students conceptualize ideas.

**Preparation:**

For the fog activity you need to have hot water ready to use before you start. Other than that, it is pretty easy!

**Procedure:**

**Fog Activity:** Fill up the jar completely with hot water and let it sit for about a minute. Pour out almost all the water, and leave about one inch in the jar. Put the strainer over the top of the jar and place a few ice cubes in the strainer. In a few seconds fog will be created. Explain to the students that the cold air from the ice cubes collides with the

warm, moist air in the jar. This causes the water to condense and form fog.

**Lightning in your mouth activity:** Go to a dark room (maybe the bathroom) and stand in front of the mirror. Wait a few minutes until your eyes get used to the darkness. Put a wintergreen or peppermint lifesaver in your mouth. While keeping your mouth open, break the lifesaver up with your teeth and look for sparks. If you do it right, you should see flashes of light. Tell the students that when you break the lifesaver apart, you are breaking apart the sugars inside the candy. The sugars release little electrical charges in the air. When the two opposite charges meet, they react in the tiny spark that you can see.

**Assessment/Evaluation:**

The students really enjoyed this lesson (it is always more fun when they get to eat). The activities were also very simple for them because there were minimal steps, so the students were able to follow easily. We also drew on concepts that we learned previously to build on what we learned during the lesson. Asking leading questions helped me to understand if the students grasped the concept or not.

**Materials Needed (Type and Quantity):**

**Materials/Time Required:** (about 20-30 minutes)

**Fog Activity:**

- glass jar
- strainer
- water
- ice cubes

**Lightning Activity:**

- wintergreen or peppermint lifesavers
- mirror
- dark room

**Notes and Tips (suggested changes, alternative methods, cautions):**

**Safety Issues:**

You need to make sure that none of the students try to touch or handle the hot water with the fog activity. Also be careful about students running around the room with the lifesavers in their mouth, so they will not choke.

**Sources/References:**

- 1)
- 2)
- 3)