

Project FOCUS
Best Lessons
FIRST GRADE

Title of Lesson: Tornado in a bottle!

Theme: Earth Science

Unit Title: Weather and the Seasons

Target Grade Level: 1st grade

Performance Standard(s) Covered (enter codes):

S1E2. Earth Science: Students will observe and record changes in water as it relates to weather.

Essential Question and Objective listed:

Students will know the different types of weathers that are in a season and year.

Key Words and Terms included:

Tornado, sunny, cloudy, weather measuring devices,

Materials:

- Small amount of dish soap
- Some glitter (embossing glitter)
- Pencil
- Bottle w/ cap (clear bottle)
- Some water

Safety concerns:

Be careful to make sure no students ingest the dish soap or glitter. Besides that, this is a fairly safe experiment. Also, depending on your class, make sure no one throws the bottle around and injures another student.

Procedures:

1. I began by asking the students about the different types of weathers they have seen recently.
2. Then I found an image online of different weather conditions and put a word bank on the side. I told them to work in pairs and match the words to the drawings.
3. After we checked our answers, we proceeded to talk of the different ways to measure weather change and what makes weather conditions different from each other.
4. I began my experiment of tornadoes with an intense YouTube video of tornadoes (make sure you listen to it first though for sometimes it has profanity).

5. After letting them brainstorm characteristics of what a tornado is, we went into detail of tornado characteristics, what it composes of, and just a few safety procedures I thought it was worth mentioning.
6. I began the tornado in the bottle by adding 2 drop of dish soap into the bottle and adding water to the top (leaving some space at the top for water movement).
7. I added some glitter onto my pencil (after wetting the pencil first in order to get the glitter to stick), and added the glitter to the water.
8. Lastly, I put the cap on the bottle, and swirled the bottle, demonstrating the tornado figure inside the bottle.

Notes, tips, references, any changes if redone:

The best part about this lesson is that it is interactive. But with that being said, not all the students can swirl the bottle at all times so they ALL cannot be engaged in it the entire time. For that reason, I would have redone this experiment to including more questions AFTER making the tornado in the bottle or perhaps a worksheet for them to do after so they can physically write down their observations, while the bottle is passed around the room.