

**Project FOCUS
Best Lessons
FOURTH GRADE**

Title of Lesson: What Can We See In The Sky?

Theme: Earth/Space Science

Unit Number: 2 **Unit Title:** Solar System

Performance Standard(s) Covered (enter codes):

S4E1

S4E2

S4E2a, b, c, d

S4CS3

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):

Terms: Stars, Sun, Constellation, Galaxy, and Universe. We learned how to make a telescope and make observations through a magnifying glass.

Learning Activity (Description in Steps)

Abstract (limit 100 characters): I first described the key terms and explained how a telescope works and why it is important.

Details: I then explained the importance of observation and guided them through making observations in a field outside with their telescopes. To make the telescopes we used the materials provided and fastened the class to one end of each cardboard tube. On the clay, we attached the lens, one thick and one thin, and then carefully fit the two tubes together. When you look through one end you can see objects magnified. From here we made an observation chart and walked around outside making observations. I wanted them to look at clouds, plant roots, and other things in nature. I also wanted them to compare distances, details, and why they think these are important.

Materials Needed (Type and Quantity):

Modeling clay, small-diameter cardboard tube, 1 thin (eyepiece) lens, 1 thick (objective) lens, large-diameter cardboard tube.

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

My teacher had already prepared to do this lesson and so she passed it on to me once I started teaching. Because of this she had the materials on hand and I wasn't able to test the experiment before I began teaching it. Everything eventually worked out but it was difficult and several kids were frustrated when theirs didn't work immediately. The clay wasn't very effective and I would find another material that worked better. Also, each kid shared a telescope, and for my class that is a problem. They don't share well or work together well, which is an important lesson to learn, but I spent most of the time doing conflict management than teaching science. So I would try to obtain more materials in the future.

Sources/References:

- 1) HSP Georgia Science, Harcourt School Publishers; 2009**
- 2)**
- 3)**