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Grade 2
Stars and Constellations

Objective/Purpose:
This lesson teaches the students about what a star is, how it is formed, etc. and also describes constellations and what makes up the many constellations in the sky. The lesson also gives students an opportunity to use their imaginations in reemphasizing what constellations look like based on what was learned in the lesson.

Materials/Time required:
1. One book on the origin and life cycle of stars (I used the Magic School Bus because this is a little more interesting for the kids but is still informative)
2. A map of constellations or at least a couple pictures of what constellations look like (I found a fold-out map in an old National Geographic magazine that depicts the entire sky's constellations—the kids thought this was very impressive!)
3. Black construction paper
4. Chalk or white crayons
5. A list of the constellations in the sky (this is just to provide examples; I didn't know very many on my own)
6. A book on some examples and descriptions of constellations
7. Sidewalk chalk
8. About a 45 min-one hour time block

Background:
The students had been talking about space during the week some, but I went into the lesson not expecting them to know too much. The lesson starts off with an explanation of what they are expected to know and there is also a discussion with the students before the activities begin to incorporate all the material. I discussed the characteristics of stars before I went into the makeup of constellations, which helped the students understand what constellations are and what to expect them to look like, etc. The books help depict the necessary information without boring the students too much, which also makes the teaching a bit easier.

Preparation and Procedure:
I started off with the students on the “reading rug” in the classroom. First I discussed with the students what stars were, asking them if they knew what makes a star, what is the closest star to our planet, and how many stars there are in the universe. Then I read the book on stars to them. I liked using the Magic School Bus book because it goes through the life cycle of stars and the different characteristics of stars. After that I asked the students if they had questions on the book and began a discussion on the constellations. I told them what a constellation is, who came up with the constellations, how many there are in the sky and some well-known examples. A couple of my kids knew some constellations, but not many. I then showed them the map I had of the night sky and all the constellations. I pointed out some of the more interesting ones. I showed the students how abstract the pictures look using straight lines to connect the stars into making a
picture in the sky. Next I had the students go to their desks and gave each student a piece of black construction paper and a piece of chalk (white crayons will also work and may actually be less messy). I encouraged them to draw their own constellations, and reminded them of the “rules” of drawing straight lines between the stars. I set up the map shown earlier so they could see it while drawing their pictures and get any ideas they might want. I also found it helpful to draw my own example constellation for them, although a couple of students may want to copy the example for their own picture. After they are finished I had them come back to the “reading rug” for a book on constellations. This may be more effective before the drawing activity, but it could be hard to keep the students interested through the length of two books in a row. After finishing the book I took them outside to draw large-scale constellations with sidewalk chalk. This is more fun for the kids than the paper drawings and is also a good way to reinforce the lesson.

Safety Issues:
There are not many safety issues with this lesson. If you decide to take the students outside for the end of the activity just make sure they all stay together.

Possible Questions and Assessment/Evaluation:
The two drawing activities are a good assessment of the students’ understanding the concept of constellations. This time also gives you the opportunity to walk around and discuss any confusion without having each student singled out in front of the entire class. Ask the students the questions brought up before the lesson to see if they now know the answers: What is the closest star to us? What is a star made up of? How do stars die? How many stars are there in the sky? What is a constellation?, and so forth. I was fortunate enough that my class focused on the solar system for a couple of weeks, so in the next lesson I taught I was able to touch on previous material and remind students of any forgotten information.