

Saturday Science Week #2

Lesson Plan

Learning Objectives:

- Students will make a picture and model of a planet he or she learns a lot about using PlayDoh or Clay.
- Students will orally state similarities and differences between planets
- Students will share information learned about a specific planet with his or her peers by creating a Venn diagram
- Students will “play the part” of being a planet in a live people model of the solar system

Indiana Academic Science Standards & Process Standards:

Process Standards

- Conduct investigations that may happen over time as a class, in small groups, or independently. Grades K- One Process Standard-NOS
- Discuss observations with peers and be able to support your conclusion with evidence. Grades K- One Process Standard-NOS
- Make and use simple equipment and tools to gather data and extend the senses. Grades K- One Process Standard-NOS
- Select and use materials based on their physical properties to develop a solution that will meet the goal. Grades K- One Design Process Standard

Core Standards (Physical Sciences)

- K.1.1. Use all senses as appropriate to observe, sort and describe objects according to their composition and physical properties, such as size, color, and shape. Explain these choices to others and generate questions about the objects.
- K.1.2 Identify possible uses for an object based on its properties and compare with other students’ ideas.

Teacher Content Knowledge:

<http://www2.scholastic.com/browse/article.jsp?id=4855&FullBreadCrumb=%3Ca+href%3D%22http%3A%2F%2Fwww2.scholastic.com%2Fbrowse%2Fsearch%2F%3FNtx%3Dmode%2Bmatchallpartial%26+N%3Dfff%26Ntk%3DSCHL30+SI%26query%3Dplanets%26N%3D0%26Ntt%3Dplanets%22+class%3D%22endecaAll%22%3EAll+Results%3C%2Fa%3E>

The content on this website is crucial to what the teachers need to know in order to be able to teach this lesson. It provides basic information about the planets and more in depth information.

Materials:

- At least 12 boxes of 24 crayons
- At least 12 boxes of washable markers
- White printer paper
- Small rocks/pebbles
- Sand (beach sand)
- 24 pairs of children's scissors
- Construction paper (all colors but especially dark blue and black)
- 1 skein of Yarn (any color)
- Cotton balls
- Pom poms (multiple sizes and colors)
- Modeling Clay or Play Doh (multiple colors enough for 24 students to make model planets)
- 7 sheets of chart paper
- White Glue

Description of the Lesson:

- When students enter, they will be asked to draw a picture of their favorite planet. This will allow time for all students to get to class.
- Introduce The Solar System as a whole (PowerPoint slides with pictures and names of all the planets in relation to the sizes and distance to the sun and each other)
- Share a kid song about the planets with them
- Go down to the lobby of the School of Ed building on the 1st floor and have students be the model of the planets (3 separate models: 3 groups of 8, teachers are the suns, connect to each other with rope to show the order from the Sun)
- Take time to focus on Earth (such as terrain, temperature, what it is like to live here) Each student will draw a picture to practice representing the planet (lots of different materials will be provided to assist them)
- Divide into 3 groups so that each teacher is leading a smaller group. Each group will focus on only 1 planet other than Earth. Books, Magazines, Models, and Pictures will be provided to explore. We will be using the computers to allow them to explore more about the selected planet online as well. Each student will be constructing the planet on paper using lots of materials to show the terrain, temperature, and what it

would be like to live there (just like we practiced doing with Earth). They also will get to make the planet with PlayDoh or Clay.

- What do you think you would be able to observe about the ground?
- What would you observe about the sky?
- Would plants and animals be found on this planet? If so, what kinds and how would they survive?
- How would you dress on this planet?
- When everyone is done, 2-3 kids in each group will be rotated into other groups so that each planet is represented in a new group of kids. They will take turns teaching each other about the planet they just learned about.
- Staying in those 3 groups, the teacher will assist them in creating a big Venn diagram of the 3 planets to show similarities and differences.
- We will discuss the combination of all the thoughts of the 3 groups, and then incorporate where Earth fits into it on another Venn diagram.
- If we have time left over, we will read a Magic School Bus book as a Read-Aloud to reinforce the ideas we learned.

Assessment:

Students will create a picture of their favorite planet based on previous knowledge and then will create a picture of a planet based on their research. Students will then be assessed on how their ideas of planets have changed through their pictures.

Students will be teaching their peers about their assigned planet that they will have researched.