

Katharine Otolski

EDPS 345: Performance Assessment Unit

Phase 1: Overview

Title: Earth and Space Science

Grade level and content area: Middle school—specifically 6th grade Earth Space Science

Brief description: For this lesson we have been learning about Earth and Space Science—we have been learning all about the planets (the position, the makeup, and the size), we have learned about the sun, the elements in the atmosphere, the moon (its makeup, and the phases of the moon), other things we have found in space such as meteors, meteoroids, comets, and, much more. We have spent two weeks on this lesson, we have just scratched the surface of this lesson—in the next few weeks though we will go even deeper into this lesson—this includes a field trip to the planetarium.

Objectives

At least three to five objectives:

Be able to tell me relative locations of each planet. As well as general being able to distinguish between hemispheres.

Be able to identify stars.

Be able to tell me about different material found in space.

Be able to list the composition and elements found in items.

Be able to identify the phases of the moon

Align one or more academic standards to objective:

6.2.1 Describe and model how the position, size and relative motions of the earth, moon and sun cause day and night, solar and lunar eclipses, and phases of the moon

6.2.3 Understand that the sun, an average star where nuclear reactions occur, is the central and largest body in the solar system.

6.2.4 With regard to their size, composition, distance from sun, surface features and ability to support life, compare and contrast the planets of the solar system with one another and with asteroids and comets.

6.2.5 Demonstrate that the seasons in both hemispheres are the result of the inclination of the earth on its axis, which causes changes in sunlight intensity and length of day.

Sources

Science. (2014, June 11). Retrieved February 20, 2016, from
<http://www.doe.in.gov/sites/default/files/standards/science/2010-Science-EarthSpace.pdf>

Also

<http://www.doe.in.gov/sites/default/files/standards/indiana-sixth-grade-correlation-guide-20160415.pdf>

Phase 2: Design Assessments

Pre-assessment: Please answer each question to the best of your ability. This will not be counted as a grade.

Please write your answer on the blank line besides the question

1. What hemisphere do we live in? _____

2. What two planets are considered Earth's neighbors? _____

3. How hot is the sun? _____

4. What is a meteor? _____

5. True or False: We have 12 planets in our solar system.

6. True or False: As of this point people can only live on Earth.

7. What galaxy do we live in? _____

8. True or False: Oxygen is found outside of Earth's atmosphere.

Performance assessment:

My classroom will be set in a typical fashion, desks that each individual student will sit at in order to take their test. Poster, maps, pictures, and other charts will be left up hanging around the room—these are the same visuals that the students have been learning from and have had access to the entire school year. Since that is the case they will remain up for the test, and students will be able to get up and look at them. However, any words that identify the object will be covered up, while students are being tested. The students have had the opportunity to work on different projects throughout the year—the posters, the models, the PowerPoints, and the drawings. These will be presented at the end of class, after all the test have been turned in—since these have already been graded it will be an informal presentation—the goal of this is to just explain to the class one of your favorite things you learned over the course of this unit.

Unit Test

Please answer the following questions. You may get up to look at the posters hanging around the room—though you may not talk to your peers. This test will be worth a total of 20 points.

Please circle the correct answer for questions 1-5. You may use the posters around the classroom. Each question will be worth 2 points.

1. The planet that is the closest to Earth is?
 - a) Jupiter
 - b) Mars
 - c) Uranus
 - d) Neptune

2. How hot is the temperature of the surface of the sun?
 - a) 1,034 K
 - b) 34 C
 - c) 5,778 K
 - d) 100 F

3. Which of the following is in the correct order from smallest to largest?
 - a.) Solar System, Universe, Milky Way Galaxy
 - b.) Milky Way Galaxy, Solar System, Universe
 - c.) Universe, Milky Way Galaxy, Solar System
 - d.) Solar System, Milky Way Galaxy, Universe.

4. What are Comets mostly composed of?
 - a.) Frozen Gases and Ice
 - b.) Just Ice
 - c.) Space Rocks
 - d.) Water and Rocks

5. What were atmospheres first elements?
 - a.) Oxygen, Hydrogen, and Iron
 - b.) Nitrogen, Hydrogen, and Carbon Oxygen
 - c.) Water, Hydrogen, and Carbon
 - d.) Carbon, Helium, and Oxygen

For question 6-7 please answer the questions on the line below. Each question is worth 4 points. However, all of the words have been covered, peeking at the words, will be an automatic wrong answer (minus 4 points).

6. What is the acronym that we use in order to remember the arrangements of the planets. You may get up to look at the poster.
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7. In the correct order list the planets. (HINT: use number 6 to help)

Please circle True or False for the correct answer, for questions 8 and 9. Each question is worth one point.

8. True or False: Pluto is still considered a planet?

9. True or False: The sun is considered a star?

BONUS

10.) Identify the phases of the moon on the blanks below the picture or off to the side of each picture since the background is black! (.5 point for correct answer, Total of 5 points)



Answer Key to Unit Test:

1= A

2= C

3= D

4= A

5= B

6= My Very Educated Mother Just Served Us Nachos

7= Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, and Neptune

8= False

9= True

Bonus



Rubric

Objective	Standard	Pre-Test Item or Unit Test
Be able to tell me relative locations of each planet. As well as general being able to distinguish between hemispheres. Be able to identify the phases of the moon	6.2.1 Describe and model how the position, size and relative motions of the earth, moon and sun cause day and night, solar and lunar eclipses, and phases of the moon	Pre-test: 7, 2 Test: Bonus, 9
Be able to identify stars.	6.2.3 Understand that the sun, an average star where nuclear reactions occur, is the central and largest body in the solar system.	Pre-test: 7, 5, 6, Test: 6, 7,
Be able to tell me about different material found in space. Be able to list the composition and elements found in items.	6.2.4 With regard to their size, composition, distance from sun, surface features and ability to support life, compare and contrast the planets of the solar system with one another and with asteroids and comets.	Pre-test: 8, 4 Test: 1, 4, 5, 6, 7,
Be able to tell me relative locations of each planet. As well as general being able to distinguish between hemispheres.	6.2.5 Demonstrate that the seasons in both hemispheres are the result of the inclination of the earth on its axis, which causes changes in sunlight intensity and length of day.	Pre-test: 1, 3 Test: 2, 3

Reflection:

While I was creating this assessment unit, I learned a lot about what it actually means to create one. I learned that each question has to connect to a standard, objectives must connect to a standard, that the point system needs to make sense, and that directions need to be cleared and detailed. Since it is just 6th grade, and the assessment itself is short—it was harder to try to use a variety of standards completely. It was really interesting to see exactly where each question would tie into a different standard. It also helps me see just how detailed I have to be—I need to be very clear with what I say, in order to avoid confusion. That is why it is so important to learn how to write good directions to a test. I liked creating an assessment unit because it gave me the chance to see how everything connects—it allows me to be able to pinpoint where I seem to focus the most on.