Allison Pramberger Professor Rickey Moroney

EDU 521.03 June 17, 2010

Grade:3 Topic:The Solar System Content Areas:MST, The Arts

**Instructional Objective**

After watching a video from BrainPop.com followed by a podcast and discussion on the eight planets of our solar system, students will construct a mobile of the planets. The students must receive a 3 out of 4 on the rubric created for this assignment to have successfully met the objective.

**Standards and Indicators**

**Mathematics, Science, and Technology**

**Standard 4:   Science**

Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.

* This will be evident when students can identify the names of the eight planets, that they all orbit around a central point called the sun, and the order from which they orbit the sun.

**The Arts**

**Standard 2:   Knowing and Using Arts Materials and Resources**

Students will be knowledgeable about and make use of the materials and resources available for participation in the arts in various roles.

* This will be evident when students create a mobile of the planets using crayons, string, and hangers in the correct order they orbit around the sun.

**Motivation**

The teacher will show a BrainPop video about the solar system.

**Materials**

* Computer
* Projector and Screen
* Audio
* Hangers
* Templates for the planets and sun
* String
* Crayons

**Strategies**

The teacher will utilize direct instruction as well as group discussion.

**Adaptations**

* The student who is an English Language learner will be provided with pertinent vocabulary words prior to the lesson.
* The student who has a hearing disability will given a copy of the dialogue of the BrainPop video as well as the podcast.

**Differentiation of Instruction**

The teacher understands that each child has different learning styles and modalities. For the visual learner, the teacher will show the BrainPop video. For the audio learner, the teacher will play the podcast.

**Developmental Procedures**

* The teacher will begin the lesson by asking the students what they know about our solar system and the planets that inhabit it. (*Has anyone heard of the solar system? What does solar mean? What planet do we live on? Does anyone know if there are any other planets other than Earth? Why is this important to know?*)
* The students will watch a video from Brainpop.com about the solar system and how it was created.
* The students will be asked about what they just saw in the video. (*How are the planets formed? What is at the center of our solar system? Is it a planet? How does the orbit affect the planet’s atmosphere? How does the order of the planets affect their environment?*)
* The students will then listen to a podcast from RadioWillowWeb about the planets and be asked to write some notes they find important. (*What did you record in your science notebook from the podcasts? Are all the planets the same? Can they all support life?*)
* Once the discussion is finished, the students will be given the materials needed for their solar system mobile. They will be asked the put the planets in the correct order from the sun and write one fact about each planet on the back.
* The students will construct their mobiles and will be given the opportunity to present their mobiles and facts to the class. (*Who would like the show the class their mobile as well as read the facts they have learned about the planets?)*

**Assessment**

Students will create their mobiles in the correct order the planets order around the sun as well as include one fact about each planet, receiving a score of 3 out of 4 on the rubric created.

**Independent Practice**

After studying the basic facts of the solar system, students will be given a worksheet where they have to cut and paste the planets in the correct order as well as explain what else they would like to learn about the solar system.

**Academic Intervention and Academic Enrichment**

Academic Intervention: For the student who is having trouble meeting the objective the teacher will meet with the student for one-to-one assistance.

Academic Enrichment: The student who easily reaches the objective can use a SMART notebook activity created to answer “Who am I?” questions about the planets .

**References**

BrainPop, Initials. (Producer). *Solar system*. [Web]. Retrieved from <http://www.brainpop.com/science/space/solarsystem/preview.weml>

University of Kansas, ALTEC. (2000). *Rubistar*. Retrieved from http://rubistar.4teachers.org/

WillowWeb, R. (Producer). (2006). *Blast off into space!*. [Web]. Retrieved from <http://mps.mpsomaha.org/willow/radio/shows/Willowcast18.html>

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| |  | | --- | | **The Solar System Mobile Rubric**  Teacher Name: **Ms. Pramberger**    Student Name:     \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |

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| --- | --- | --- | --- | --- | --- |
| CATEGORY | Master=4 points | Apprentice=3 points | Novice=2 points | Untrained=1 point | Score |
| Knowledge about the solar system | Student accurately included 8 out of 8 facts, one about each planet. | Student accurately included 6 out of 8 facts, one for each planet. | Student accurately included 4 out of 8 facts, one for each planet. | Student accurately included 3 or less facts for each planet. |  |
| Balance and Use of Space | Use of positive and negative space creates a feeling appropriate to the theme. Objects are placed for best effect. Overall, it just feels right. | Use of positive space is good is relatively balanced, but one planet is not in its correct order. | The mobile seems to have the planets too close together or at least two planets are not in the correct order. | The mobile seems unfinished or the student has not placed more then four planets in the correct order, including the sun. |  |
| Time and Effort | Class time was used wisely with much effort put forth in completing the mobile. | Class time was used wisely, but lacked effort when completing the mobile. | Class time was not always used wisely, but additional work was done at home or other times during the day. | Class time was not used wisely and no additional effort was put in at other times or places. |  |
| Knowledge about the Mobile | The colors of the mobile can be interpreted to correlate to the colors of each planet. | The colors of the mobile can be interpreted to correlate to the colors of 6 out of 8 planets. | The colors of the mobile can be interpreted to correlate to the colors of 4 out of 8 of the planets. | The colors of the mobile can be interpreted to correlate with less than 4 of the planets. |  |

