Teacher's Name: Janelle Harrier-Wilson

Overarching Theme: Exploration

Grade Level: Sixth Grade Science

Topic of Unit: The Solar System

Lesson Style: Reading for Meaning

Name of Lesson: Exploration: How exploration helps us differentiated between comets, asteroids, and meteors.

Essential Question: What is the difference between comets, asteroids, and meteors?

AKS: 11c: describe the characteristics of comets, asteroids, and meteors

Gifted Standards:

Research: Demonstrate an ability to access a wide variety of sources of information.

Autonomous Learner: Use information from a variety of sources.

Learning Styles:

The Reading for Meaning lesson model is best fit for understanding. Targeted discussion questions do help to focus the strategy onto the four learning styles.

Curry/Samara Placement:

Generate a video that expresses the differences between comets, asteroids, and meteors. This is quadrant two on the Curry/Samara Model. It is factual creative thinking.

Lesson Outline:

1. Pass out graphic organizer and ask students to make predictions about each of the statements.
2. Have students read the two provided articles about comets, asteroids and meteors. Students should fill in graphic organizer as they complete the reading.
3. Class discussion about the reading and findings. Review findings on graphic organizer and pose leading questions. Here are some for ideas:
    a. Mastery:
        i. Summarize the main differences between comets, asteroids, and meteors.
        ii. How have we learned about comets, asteroids, and meteors?
    b. Interpersonal:
        i. Which would cause the most impact to the Earth – comets, asteroids, or meteors? Why?
        ii. What can scientists do to help minimize future impacts on the Earth by comets, asteroids, and meteors?
    c. Self-Expressive:
        i. What if you lived 500 years ago and saw a comet in the sky. What do you think it means?
        ii. You are leading the first expedition to land on an asteroid. What do you find?
    d. Understanding:
        i. Support with evidence: meteors are meteorites are just small pieces of asteroids and comets.
        ii. Defend the need to spend NASA budget money on studying comets, asteroids, and meteors.
4. Have students go back and fill in their After section agreeing or disagreeing with the six statements.

5. Synthesis Activity – students create video in groups of four about comets, asteroids and meteors. See below for more details.
6. Student evaluation: Ticket out the Door – answer the following questions:
    a. How did your thinking change as you read the article?
    b. What did this process clear up for you about comets, asteroids, and meteors?
    c. Did this process help you focus while reading more than you usually do? Why?

Synthesis Activity:

In groups of four – ideally with equal distributions of learning styles, students will create a video to explain comets, asteroids, and meteors.

1. Decide who will be your cameraman and actors.
2. Decide the format your video will follow. Video should be no longer than 5 minutes.
3. Write a script for your video. Have Mrs. Wilson check before you begin filming.
4. Film your video.
5. Upload to the computer.

Evaluation of Synthesis Activity (formative assessment):

1.	Script approval.	Yes	No
2.	Explained comets.	Yes	No
3.	Explained meteors.	Yes	No
4.	Explained asteroids.	Yes	No
5.	Explained how the three are alike and different.	Yes	No
6.	Video no longer than 5 minutes.	Yes	No

Bibliography:

BBC. (2002, November 11). *Asteriods, Comets & Meteors - Clearing Up Confusion*. Retrieved March 10, 2010, from h2g2: http://www.bbc.co.uk/dna/h2g2/A810118

Cornell University Astronomy Department. (2006, January 14). *Comets, Meteors, and Asteroids*. Retrieved March 10, 2010, from Curious About Astronomy: http://curious.astro.cornell.edu/comets.php

Exline, J. (2002). *Earth Science.* Upper Saddle River: Prentice Hall.