Solar System Tic- Tac- Toe

Postvisit Activity for Deep Space

courtesy NASA/JPL

Grades 9- 12

CDE Standards

Science: 1,4.4,5,6

Language Arts: 1,2,4,5,6

Preparation and Materials
Estimated Preparation Time: 30 minutes
Estimated Activity Time: Three or more time periods of 30 minutes each

Materials
Paper
Pencils
Colored pencils, crayons, markers
Miscellaneous art supplies
Construction paper or card stock
Poster board

Learning Goals/Objectives
Students will analyze and synthesize information learned in a unit on the solar system to complete three activities on the game board.

Connection to *Space Odyssey*
Space Odyssey was designed with the solar system at its heart. Students completing this activity can use aspects of literally every experience within *Space Odyssey* to further develop their understanding of the solar system and its formation.

Advanced Preparation
Make a copy of the tic-tac-toe activity sheet for each student in your class.

Classroom Activity
1. This activity is designed to differentiate for the needs and learning styles of the students in your classroom.
2. After completing a unit on the solar system, hand out a copy of the tic-tac-toe sheet to each of your students.
3. Briefly discuss each activity on the tic-tac-toe grid to give students any information they might need to complete their three activities.
4. Tell students they will choose three activities from the grid to complete a row. Students are allowed to choose any of the activities from the grid, as long as they lie in a straight line. (This is a preference only. You may opt to have students choose any of the activities from the playing board.)

5. Give the students the time they'll need to complete the three activities.

Variations/Extensions

1. Have a "Solar System Party" to allow students to share their projects with classmates.
2. Host a "Space Night" open house so parents and families can come see student projects. You may choose to host this night in conjunction with a Museum Star Party for extra space-exploration opportunities.

Name: _____

Instructions: Choose a path on the game board and complete three activities to make a tic-tac-toe. Your activities must lie in a straight line on the board.

1. Conduct a survey about the solar system in your class or grade level. Ask a question and compile your research to present in graphic form. Include at least three types of graphs, as well as a written explanation of your results.	2. Work with a partner to write a script debating whether or not Pluto should be considered a planet. Use research to defend your position. Present the debate to your class.	3. Design an educational game to teach students about the solar system. Base your game on researched fact about the solar system.
4. Find a partner classroom in an elementary school and teach a lesson to younger students illustrating an important concept from our solar system such as orbits or Moon phases.	5. Write a commercial with a catchy jingle to advertise a planet in the solar system. Videotape your commercial and present it to the class.	6. Write and illustrate a book of poetry about each of the planets and other objects in the solar system. Share your book with the class.
7. Conduct Internet research to find out when each of the planets will be visible in the night sky. Choose one planet that is visible now and keep a planet journal for at least two weeks to show its movement in the night sky.	8. Create a mini-diorama of a planet in our solar system, similar to the Mars diorama in *Space Odyssey*. Use research to ensure that your diorama is scientifically accurate.	9. Research one of the planets in the solar system and present your findings in a PowerPoint presentation.

Activities chosen: _____