

Space Odyssey Online Teacher's Guide

Solar System Tic-Tac-Toe

Postvisit Activity for Solar System



courtesy NASA/JPL

Grades 4-8

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

Puppets or materials to make puppets

Puppet stage (optional)

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.

Resources

<http://apod.gsfc.nasa.gov>

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.

<p>1. Write a song or rap that teaches about the solar system. Teach the song to a group of students and perform it for your class.</p>	<p>2. Work with a partner or small group to research the planets in our solar system. Write a play or puppet show script to present your information. Act out the play and present it to your class.</p>	<p>3. Make a scrapbook of pictures of the solar system. Be sure to include captions and research for each picture. Include all of the planets and other objects in the solar system.</p>
<p>4. Pretend you have discovered a new planet in our solar system. Write an article presenting your research. Describe your new planet in detail.</p>	<p>5. Create a mini-diorama of a planet in our solar system, similar to the Mars diorama in <i>Space Odyssey</i>. Use research to ensure that your diorama is scientifically accurate.</p>	<p>6. Keep a learning log of all the new information you are learning in your study of the solar system. Find a creative way to categorize the information you've learned.</p>
<p>7. Write 10 riddles or problems about the solar system for a fellow student to solve. Use research to make your riddles as tricky as you can. Give your problems to a partner and ask them to find the answers!</p>	<p>8. 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.</p>	<p>9. Write a children's book about the solar system. The information presented in the book should be scientifically accurate. Illustrate the book and share it with a younger group of students.</p>

Activities chosen: _____