



Title:	Lost in the Solar System																
Grade(s):	4																
Subject(s):	Science																
Author:	North Roebuck Elementary Teachers																
Overview:	The students will use technology and dance to explore and explain aspects of the solar system.																
Content Standards:	<table border="0"> <tr> <td>SC(4)</td> <td>10. Describe components of our solar system.</td> </tr> <tr> <td>TC(3-5)</td> <td>2. Use various technology applications, including word processing and multimedia software.</td> </tr> <tr> <td>TC(3-5)</td> <td>10. Use digital environments to collaborate and communicate.</td> </tr> <tr> <td>TC(3-5)</td> <td>12. Create a product using digital tools.</td> </tr> <tr> <td>AE(4)</td> <td>Demonstrate contrasting elements of effort, including focus, time, and weight.</td> </tr> <tr> <td>Dance</td> <td></td> </tr> <tr> <td>NSES</td> <td>Develop understanding of Earth in the solar system.</td> </tr> </table>	SC(4)	10. Describe components of our solar system.	TC(3-5)	2. Use various technology applications, including word processing and multimedia software.	TC(3-5)	10. Use digital environments to collaborate and communicate.	TC(3-5)	12. Create a product using digital tools.	AE(4)	Demonstrate contrasting elements of effort, including focus, time, and weight.	Dance		NSES	Develop understanding of Earth in the solar system.		
SC(4)	10. Describe components of our solar system.																
TC(3-5)	2. Use various technology applications, including word processing and multimedia software.																
TC(3-5)	10. Use digital environments to collaborate and communicate.																
TC(3-5)	12. Create a product using digital tools.																
AE(4)	Demonstrate contrasting elements of effort, including focus, time, and weight.																
Dance																	
NSES	Develop understanding of Earth in the solar system.																
Local/National Standards:																	
Primary Learning Objectives:	<p>The students will collaborate to create a presentation that describes the solar system.</p> <p>The students will create a model of the solar system.</p>																
Additional Learning Objectives:	<p>The students will recall the names of the planets.</p> <p>The students will create a dance that describes the rotation of the planets around the sun.</p>																
Approximate Duration of Lesson:	6-7 Days																
Materials and Equipment:	<i>The Magic School Bus: Lost In The Solar System</i> by Joanna Cole; props labeled with the Sun and planets																
Technology Resources Needed:	Internet access, computers, programs/software (see website list in “Attachments”), Scratch animation “Solar System” (included in file folder), Microsoft PowerPoint																
Background/Preparation:	Student should be familiar with various programs to produce presentations (such as Prezi, Glogster, Scratch, PowerPoint).																
Procedures/Activities:	<table border="0"> <tr> <td>Day 1:</td> <td>a) Using a KWL chart, ask students what they know and want to know about the solar system.</td> </tr> <tr> <td>Engage,</td> <td>b) Show the “Solar System” Scratch animation.</td> </tr> <tr> <td>Explore</td> <td>c) Read <i>The Magic School Bus: Lost In The Solar System</i>.</td> </tr> <tr> <td></td> <td>d) Ask students what they learned about the Solar System and record their answers on the KWL chart.</td> </tr> <tr> <td>Day 2:</td> <td>Explore the website:</td> </tr> <tr> <td>Engage,</td> <td>http://www.kidsastronomy.com/solar_system.htm</td> </tr> <tr> <td>Explore, &</td> <td>Discuss the positioning and rotation of the planets.</td> </tr> <tr> <td>Explain</td> <td></td> </tr> </table> <p>Divide students into groups of ten and have them create a dance, which shows their interpretation of the rotation of the planets around the sun. After</p>	Day 1:	a) Using a KWL chart, ask students what they know and want to know about the solar system.	Engage,	b) Show the “Solar System” Scratch animation.	Explore	c) Read <i>The Magic School Bus: Lost In The Solar System</i> .		d) Ask students what they learned about the Solar System and record their answers on the KWL chart.	Day 2:	Explore the website:	Engage,	http://www.kidsastronomy.com/solar_system.htm	Explore, &	Discuss the positioning and rotation of the planets.	Explain	
Day 1:	a) Using a KWL chart, ask students what they know and want to know about the solar system.																
Engage,	b) Show the “Solar System” Scratch animation.																
Explore	c) Read <i>The Magic School Bus: Lost In The Solar System</i> .																
	d) Ask students what they learned about the Solar System and record their answers on the KWL chart.																
Day 2:	Explore the website:																
Engage,	http://www.kidsastronomy.com/solar_system.htm																
Explore, &	Discuss the positioning and rotation of the planets.																
Explain																	

- Days 3-5:
Extend
- dance presentations, have students discuss any information they learned about the solar system, adding their comments to the KWL chart.
- Tell students that they will research the solar system in groups and present what they learn to the class. Their presentations can be in the form of Prezi, Glogster, Scratch, or PowerPoint.
- Divide students into groups of four and give the following instructions:
1. Choose a presentation format for your project- Prezi, Glogster, Scratch, or PowerPoint.
 2. Generate a list of questions that you would like your project to answer: Use the W (*Want to Know*) section of the KWL chart as a guide.
 3. Decide who will be responsible for each part of the presentation.
 4. Each project must include:
 - Title
 - Names of all planets
 - Several facts about each planet
 - Answers to several “Want to Know” questions
- Days 6-7
- Each group presents their product on a specified day. Links for web-based presentations may be placed on the class blog to be shared with parents.

Attachments:

- Assessment Rubric
- Websites for online programs:
 - www.prezi.com (Presentation)
 - www.glogster.com (Online Poster)
 - <http://scratch.mit.edu> (Scratch Animation)

Assessment

See rubric.

Strategies:

Extension:

Explore the website: <http://www.spaceplace.nasa.gov>

Remediation:

Provide additional websites or print references at appropriate reading level. Let students view Solar System presentations from student groups.

Solar System Project Rubric

Requirement	Exemplary - 4	Good Job - 3	Needs Some Work - 2	Needs Much Work - 1
Project research	Includes all project components and accurately answers all project questions: - Title - Naming of all planets - At least 3 facts about each planet - At least 3 “Want to Know” questions	Includes all project components and accurate information for 1 or 2 facts and 1 or 2 Want to Know questions about the planets.	Missing some information on some of the planets or Want to Know Questions.	No information on some planets or did not answer Want to Know questions.
Group participation	Each group member contributed fair share to group project.	Each group member contributed something to group.	Some group members did not contribute.	Only one or 2 people did all of the work.
Presentation	Project is engaging, pleasing appearance, no spelling or grammar errors.	Pleasing appearance, only minor errors.	Several spelling or grammar errors. Presentation needs some work.	Many errors in spelling or grammar or Project not ready for presentation.