

FEATURE LESSON: PLANETS

Class: Sixth Grade Science Class
Subject: The Solar System
Lesson Title: Planets (Inner and Outer)
Lesson Length: 2 weeks

The purpose of this lesson is for students to use their knowledge about planets in the solar system to create a Microsoft Picture Planet PowerPoint.

Content Objectives

All students will create a Microsoft Picture PowerPoint distinguishing the different characteristics of the inner and outer planets.

1. ELLs will become familiar with the characteristics of each planet in our solar system.
2. ELLs will investigate their planets by using textbook information and search engines to collect pictures.
3. ELLs will create a Microsoft Picture PowerPoint Presentation based on information gathered about their planets.

Language Objectives

All students will be able to orally explain the characteristics of their planets by the use of pictures.

1. ELLs will read the inner and outer planets in Sections 3 and 4 in Chapter 9 – The Solar System in North Carolina Grade 6 Prentice Hall *Science Explorer* textbook.
2. ELLs will discuss the main characteristics of their planet such as: atmosphere, structure of the planet, how many moons, how far is their planet from the sun, what types of equipment is used to take pictures of their planet, and other facts the students wants to incorporate.
3. ELLs will display the main points in a Microsoft Picture Planet PowerPoint Presentation.

Culture Objectives

1. ELLs will pair with native English-speaking student to differentiate between cultures.
2. ELLs that are not English-speaking students will pair with a non-native English-speaking student to differentiate between languages.

North Carolina Standard Course of Study for Science: 6th Grade

Goal 1: The learner will design and conduct investigations to demonstrate an understanding of scientific inquiry.

- 1.01 - Identify and create questions

- 1.03 - Apply safety procedures
- 1.07 - Prepare models, and/or computer simulations
- 1.08 - Use oral and written language
- 1.09 - Use technologies and information systems (Internet)

Goal 2: The learner will demonstrate an understanding of technological design.

- 2.02 - Use information systems (internet)

Goal 5: The learner will build understanding of the Solar System.

- 5.01 - Analyze the components of the solar system

Teacher Materials:

- North Carolina Grade 6 Prentice Hall *Science Explorer* Textbook (Chapter 9 The Solar System: The Inner and Outer Planets pages 302-319)
- Adapted Reading and Study Workbook (pages 154-164)
- Highlighter
- Planet PowerPoint Handout
- Homework Sheet – Attachment #1
- Image Citation Handouts – Attachment #2
- Picture PowerPoint Rubric – Attachment #3
- Listening Rubric – Attachment #4
- Computer Lab – 1 week
- Microsoft PowerPoint 2003
- Clip Art
- Internet – Yahoo and Google Search Engines
- Loose-leaf Paper for note taking
- Pencils
- Computer
- Data Projector
- Screen

Activity 1 – Introduction – As a whole group, the teacher will read aloud the essential question of the day, “What are the main characteristics that distinguish each of the inner planets?” Key terms are read aloud one by one and students will repeat each word. Students will volunteer to read aloud Section 3: The Inner Planets on pages 302-309, in class from North Carolina Grade 6 Prentice Hall *Science Explorer* textbook. A student will be chosen from name sticks to answer the essential question of the day. Workbook pages (154-158) from Adapted Reading and Study Workbook are assigned for individual practice. Students will use a highlighter to highlight their answers in the workbook for accuracy. If students do not finish the assignment in class, it will be for homework. Homework is checked the next day and will count as a non-academic grade.

Activity 2 – Day 2 – As a whole group, the teacher will read aloud the essential question of the day, “What characteristics distinguish each of the outer planets?” Key terms are

read aloud one by one and students will repeat each word. Students will volunteer to read aloud Section 4: The Outer Planets on pages 312-319, in class from North Carolina Grade 6 Prentice Hall *Science Explorer* textbook. A student will be chosen from name sticks to answer the essential question of the day. Workbook pages (159-164) from Adapted Reading and Study Workbook are assigned for individual practice. Students will use a highlighter to highlight their answers in the workbook for accuracy. If students do not finish the assignment in class, it will be for homework. Homework is checked the next day and will count as a non-academic grade.

Activity 3 – In pairs (selected by the teacher), students will use Yahoo and Google search engines on the Internet to gather and save pictures of their planet's characteristics that coincides with the information from their textbook. After completing the picture search, each pair will create a Microsoft Picture PowerPoint describing their planets. Students can incorporate slide layouts, backgrounds, slide transitions, sounds, and custom animations. ELL students will be paired with a student based on English proficiency.

Guidelines for the Microsoft Picture PowerPoint Presentation Computer Lab – One Week

- Minimum of 6 slides with a maximum of 9 slides. ELL students will complete the minimum of 6 slides.
- The First slide is the title slide (name of the planet and students).
- Slides 2-5
 1. Title each slide (Examples: atmosphere, structure of the planet, water, rings, how many moons, etc.).
 2. Incorporate 3 pictures on each slide (clipart or internet) relating to your planet from the textbook.
 3. Use the Image Citation Sheet (Attachment #1) to cite your pictures. The yellow highlighted example on this sheet should show how to cite your pictures correctly.
 4. ELL students will use the web address to cite their pictures. The web addresses need to be in alphabetical order on the last slide.
- Slide 6
 1. Resource Page (citation of pictures)
 2. Use the example on the Image Citation Sheet
- Check for mechanics – grammar and spelling errors
- Double-check your work
- Make sure you have covered all information related to the rubric

Activity 4 – Microsoft Picture PowerPoint Presentation using the Computer, Data Projector, and a Screen

- Read each title slide if provided
- Use the pictures displayed to talk about the planet
- One student will read one slide and the other student will read the next. Continue this rotation until the presentation is completed.

- Be prepared to answer questions (teacher and students)
- A listening rubric will be implemented during presentations to evaluate good listening skills. This rubric will be taken as a non-academic grade.

Activity 5 – Conclude with constructive feedback on student’s work. Provide positive and timely comments to help students improve in areas of weakness in their assignment.

Activity 6 – Use the attached rubric for grading the Microsoft Picture PowerPoint Presentations.

See attachment #2

Instructional Technology Used for Teaching and Learning:

Allowing students to create a Microsoft Picture PowerPoint Presentation will integrate the use of Internet search engines in collecting pictures.

Allowing creativity for these presentations will enhance brainstorming ideas that will progress in student’s achievements.

Author Identification

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Permission to Publish: Yes No

Other project ideas I have done in the past on The Solar System include:

- A Planet Brochure
- Planet Book (includes pictures and facts)
- Create an alien and story (facts about their planet included) pertaining to their planet
- Create a Planet Mobile with facts
- Create a newspaper article on a planet

Attachment #1

Homework Grading Sheet

2 points are taken off for not completing the whole assignment
1 point is taken off for not highlighting the answers in the text

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Attachment #2

Image Citation

Person Responsible _____

“Title of Image” _____

Web Page Name _____

Date of Access: Day/Month/Year _____

<Address (URL)> _____

Notes _____

Example:

With Person Responsible:

Pinkerton, Jane. “Aye-Aye.” Lemur Center: Duke University. 18 Jan. 2008.
<<http://lemur.duke.edu/animals/>. >

Without Person Responsible:

“Aye-Aye.” Lemur Center: Duke University. 18 Jan 2008.
<<http://lemur.duke.edu/animals/>. >

Attachment #3

Picture PowerPoint Rubric

	5	4	3	2	1
Slides	The student has all slides completed.	The student has 5 slides completed.	The student has 4 slides completed.	The student has 3 slides completed.	The student has less than 2 slides completed.
Picture/Graphic	The student has 3 pictures on all slides.	The student has 3 pictures on 4 slides.	The student has 3 pictures on 3 slides.	The student has 3 pictures on 2 slides.	The student has 3 pictures on 1 slide.
Verbal Content	Completely covers all required parts of the investigation.	Completely covers most required parts of the investigation.	Covers most parts of the investigation.	Covers a few parts of the investigation.	Investigation incompletely covered.
Visual Clarity	The background and text are different in color (1 dark and 1 light). The text (size) is very easy to read.	The background and text are different in color (1 dark and 1 light). The text (size) is easy to read.	The background and text are similar in color. The text (size) is easy to read.	The background and text are similar in color. The text (size) is okay to read.	The background and text are similar in color. The text (size) is hard to read.
Transitions	The student has a slide Transition on all slides.	The student has a slide Transition on 4 slides.	The student has a slide Transition on 3 slides.	The student has a slide Transition on 2 slides.	The student has a slide Transition on 1 slide.
Resources	The student has cited all images.	The student has cited at least 9 images.	The student has cited at least 6 images.	The student has cited at least 3 images.	The student has cited at least 1 image.
Grammar and Spelling	The student has no grammar and/or spelling mistakes in their PowerPoint Presentation.	The student has 1 grammar and/or spelling mistakes in their PowerPoint Presentation.	The student has 1 grammar and/or spelling mistakes in their PowerPoint Presentation.	The student has 1 grammar and/or spelling mistakes in their PowerPoint Presentation.	The student has 1 grammar and/or spelling mistakes in their PowerPoint Presentation.

Score _____

Attachment #4

RUBRIC 18

LISTENING

DIRECTIONS: This form is designed to help you evaluate a student's skill in listening. Read the statements below. Then indicate the number from the following scale that reflects your assessment of the student's mastery of this skill.

1 = Weak 2 = Moderately Weak 3 = Average 4 = Moderately Strong 5 = Strong

1. The student determines exactly what he or she needs to know.

1 2 3 4 5

2. The student pays careful attention to relevant verbal information.

1 2 3 4 5

3. The student asks effective questions to clarify verbal information.

1 2 3 4 5

4. The student encourages others to present information and opinions.

1 2 3 4 5

5. The student is able to identify and summarize the speaker's main points.

1 2 3 4 5

Additional Comments:

Total Points/Grade: _____

http://www.sites4teachers.com/links/redirect.php?url=http://go.hrw.com/resources/go_ss/teacher99/rubrics/RUBRIC18.pdf

