

# Jay Curriculum: Unit Cover Page

**Unit title:** Solar System

**Grade Level:** 2

**Content Area(s):** Science

**Date Created:**

**Designed By:** Jay Second Grade Teachers

## **Year 1 Map & Template Development**

- Map/Matrix Completed
- Material & Resources Listed
- Draft Design Template Completed
- Initial Draft Template Document

## **Year 2 Piloting**

- Develop:
- Performance Tasks
- Other Assessments
- Scoring Rubrics
- Piloted

## **Year 3 Review & Complete Assessment**

- Performance Tasks Development
- Other Assessments Completed
- Scoring Rubrics Completed
- Reviewed/Revised Templates

## **Year 4**

- Full Implementation
- Benchmarks Established

### **Standard(s)/Performance Indicators:**

- G1 Explain the cycles of day/night and of seasons
- G2 Demonstrate that shadows of objects change based on where light is coming from
- G3 Demonstrate an understanding that the sun is one of many stars in the universe and is the closest star to earth
- H1 Demonstrate an understanding that the sun gives off light and heat energy
- K3 Make observations
- K4 Participate in brainstorming activities
- K5 Use various forms of simple logic
- L1 Describe and compare things in terms of number, shape, texture, size, weight, color and behavior
- L3 Ask clarifying questions
- L5 Make and read simple graphs
- L6 Use objects and pictures to represent scientific and technological ideas
- M2 Describe at least two inventions, what they do, how they work, and how they make life easier
- M5 Explain how their lives would be different without specific inventions or scientific knowledge

**Unit:** Solar System

**Brief Summary of Unit/Topic**

**Summary:**

In this unit, students will identify the sun as a star and the center of our solar system. Students will be introduced to the concept of stars planets, and the earth's position in the solar system. Students will learn that the moon is a satellite if the earth.

**Stage #1: Identify Desired Results**

**Essential Question/s:**

**General understanding/s (What is worth being familiar with?)**

- The sun is a star
- The sun is the center of our solar system
- There are nine planets in the solar system
- The moon orbits the earth
- The sun causes night and day and the seasons

**Students will know:**

- The sun is the center of the solar system
- The sun is a star
- There are nine planets in our solar system
- The earth is the third planet from the sun
- The moon orbits the earth
- The earth's orbit around the sun causes night an day and the seasons

**Students will be able to:**

- Observe and discuss models, charts, and posters
- Draw, sequence, and label diagrams
- Compare and contrast planets – size, moons, distance from the sun
- Apply previous experiences to make predictions
- Read science material for research
- Use appropriate technology
- Communicate understanding through brainstorming, discussions and writing

**Enduring Understanding/s:**

- The sun is the center of the solar system with nine planets orbiting it. The journey around the sun causes the seasons and day and night.

## Stage #2: Evidence

What evidence will students have to provide in order to demonstrate that they have developed the skills, knowledge and understanding to successfully complete this unit?

Performance Tasks/Products/other assessments Performance tasks should have a <u>scoring guide</u> .	<i>Performance Indicators</i> for this task.* Example: <b>ELA: C- 1,2,3</b> <b>Science: B- 3,5,7</b> <b>SS His: H- 2</b>	<u>Modalities</u> <b>K</b> =Kinesthetic <b>O</b> =oral <b>V</b> =visual <b>W</b> =written	Are <u>examples</u> available to students? ? <b>Y, N, or N/A</b>	Component of Local Assessment System?  <b>Y or N</b> (See <a href="#">aligned scoring guide</a> .)
Using a model of the sun and planets students will demonstrate and explain day and night and the seasons	G1,2,3; H1; L3			
Create a map of the nine planets revolving around the sun	K3; L1, 5, 6			
Identify earth as the third planet from the sun	K5; M5			
Recognize the moon revolves around the earth	K4; M5			
QUIZZES, TESTS, PROMPTS				
Correctly label a map of the solar system				
OTHER				
Role playing – students as sun, moon, earth, planets				
Mapping				
STUDENT SELF ASSESSMENT				
Journal writing				

\*Abbreviate: English Language Arts= ELA, Career Preparation=CP, Modern and Classical Languages=MCL, Social Studies=SS, Visual and Performing Arts=VPA

### **Stage #3: Plan learning experiences & instruction**

**What teaching & learning experiences may equip students to develop & demonstrate the targeted understanding(s)? (activities/plans):**

\*All materials in solar system kit

1. Introduction/key vocabulary
2. Use models, charts, and posters of solar system
3. Read and discuss appropriate literature
4. Use computer for research
5. Map work of nine planets and the sun
6. Discuss current events related to space
7. Compare and contrast planets
8. Use model of sun and earth to demonstrate seasons, and day and night
9. Creative writing
10. Role playing – students as models of solar system
11. Brainstorm life on another planet
12. Observe and chart the phases of the moon
13. Explore the relationship between earth and its moon

### **REFERENCES:**