**The Solar System**

**5th Grade**

**Estimated Time:** Review after two-week unit

**Day 14:** 45 minutes

**Model:** Jigsaw-The Jigsaw model allows students to become experts in the content while building responsibility and social skills. Students research a portion of a large body of knowledge in initial groups. Then move to “expert” groups where they converse with their peers answering questions they may not have, or clearing up misconceptions. Students move back to their initial groups where they are to teach the other classmates about their topic.

**Goal:** To reinforce understanding of the solar system, particularly where planets are located, while working in groups and building social skills.

**Objectives:** The students will be able to:

* Collect research that corresponds to a given topic
* Recite the planets in order starting at the Sun
* Distinguish the difference between rotation and a revolution
* Construct an idea of how movement of the planets effect seasons, length of day, and length of year
* Consider answers through group discussion

**Standards:**

* 11.) Compare distances from the sun to planets in our solar system.
  + Relating the size of Earth to the size of other planets in our solar system
  + Identifying technology used to study planets
* 8.) Describe how Earth's rotation, Earth's axial tilt, and distance from the equator cause variations in the heating and cooling of various locations on Earth.
* 9.) Identify the moon's phases.
  + Describing lunar and solar eclipses
  + Relating effects of the moon's positions on oceanic tides

**Materials:**

* Science textbook
* Other Resources (solar system packet, classroom books)
* Research organizer
* Review Matrix
* Promethean Board
* Closure PowerPoint

**Special Education Accommodations:**

There are no students that require special accommodations

**Procedures:**

**Preplanning:**

* Background knowledge
* Gather materials
* Form heterogeneous groups of four
* Build graphic organizers
* Construct closure PowerPoint

**Whole Group:**

* Introduction:
* Explain what we will be doing
* Pass out packets
* Divide students into groups
* Have students move to their first station

**Group Work:**

* Initial Groups:
* In each group each student will have a different topic they are responsible for
* They will use the designated matrix for each topic
* Monitor the small research groups
* Teacher monitors, scaffolds, accesses group participation
* Teacher instructs to move to expert groups (Labeled with a letter on their research matrix)
  + Group A
  + Group B
  + Group C
  + Group D
* Expert Groups:
* In their expert groups students will compare and contrast their research and answer unanswered questions
* Teacher will assist students to fully understand the questions
* Teacher will encourage students to ask “why” and “how” something is occurring
* Teacher will encourage all students to participate
* Teacher will instruct to move back to research groups
* Initial Groups:
* Inform students that they will now teach their peers about the topic they researched
* Remind that all students must teach in the given time
* Students writing what their peers are teaching them on the review matrix
* Teacher will assess how well the students relay their topic to their peers, used the initial organizer, and completed the review matrix

**Closure:**

* Still in their initial groups students will participate in a closure game that is shown on Promethean board
* A quiz will be presented as backup for extra time