

**Lesson Plan**

1a. <b>Name of Lesson: Wandering Through Space</b>	1b. <b>Date of Lesson:</b>
1e. <b>Grade Level: 3-6</b>	1f. <b>Time for Lesson: 45-60 minutes</b>

**2. Materials and Resources List:**  
 Blackboard, Mighty Wanderer Space-ial Solar System Model, Basketball (or ball of equivalent size), Space (Athletic Field, Parking lot, etc.)

<p><b>4a. Learning Objectives:</b>          LO1 Students will be able to arrange the planets in their order from the sun.          LO2. Students will be able to explain the significant distances between planets          LO3. Students will be able to recognize the differences in planet size</p>	<p><b>4b. Assessments (formative and summative):</b>          A1. As students are in their groups attempting to put the planets in order, walk around and gauge their success with the activity.          A2. Worksheet attached – includes questions that require students to explain their discoveries regarding the distances between planets.          A3. Worksheet attached – includes questions that require the students to describe the size of the planets in relation to the sun as well as each other</p>
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<p><b>5a. Educational Theory:</b></p> <ol style="list-style-type: none"> <li>1. Collaborative Learning</li> <li>2. Experiential Learning</li> <li>3. Constructivism</li> </ol>	<p><b>5b. Theory in Practice:</b></p> <ol style="list-style-type: none"> <li>1. Students will discuss their discoveries with each other. They will further their learning by explaining what they discovered to their classmates and will learn from classmate’s discoveries as well.</li> <li>2. Students get to walk the distances, as well as physically observe the size of the planets in relation to each other. They are then asked to reflect on this experience.</li> <li>3. Students construct their own ideas about the size of the solar system and the planets</li> </ol>
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<p><b>7a. Prior Knowledge:</b></p> <ul style="list-style-type: none"> <li>- Understanding that Earth is within a solar system that is home to other planets</li> </ul>	<p><b>7a. Activating Prior Knowledge:</b></p> <ul style="list-style-type: none"> <li>- Ask students, in groups, to list the planets in their order from the sun</li> </ul>
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**8. Instructional Plan (Labeled with each LO and A):**

**Hook – 3-5 minutes**

- Draw a roughly 9” circle on a whiteboard. After explaining that that circle represents the sun, ask a few students to try to guess the size of the Earth in comparison by drawing circles on the board.
- If no student makes a tiny dot on the board, make one yourself and explain that that is the correct relationship in size between the earth and the sun.

**Planet Order – 10 minutes**

- In groups of 2-4, ask your students to attempt to write the order of the planets from the sun on a piece of paper. Provide a word bank of the planets on the board. Walk around observing prior knowledge as they do this.
- After they have attempted to do so, bring them back to the full class. With help from the class, put the planets from the word bank in their correct order from the sun.

**Main Lesson Using Kit – 20-40 minutes**

- Outside, place the “sun” at one end of the field or space that you have. Explain to the students that the ball represents the sun, and what the suns position and role in our solar system is.
- Ask the students which planet is next from the sun. Have them take it out of the kit and ask them what their observations are about its size. **Reminder** – keep all planets in their baggies as they are very small, are easy to lose, and are easier to examine when they are kept in the bag.
- Walk off ten yards from the sun and place Mercury down or point out that that is its position in the solar system.
- Ask students what observations they have about the distance between the sun and Mercury.
- Continue to walk off as many planets as you can in the space that you have. Make sure to inquire about observations or questions that the students have as you go.

**Conclusion - 10-15 minutes**

- Back in the classroom, or with all the students gathered, ask them to share some of their discoveries from the lesson. Write the discoveries on the board or somewhere the students can all see.
- Hand the worksheet (attached below) out to the students and have them fill out the questions. This will serve as a summative assessment for the learning objectives of being able to explain distances between planets and difference in planet size.