Solar System
The students will learn about the Solar System, the order of the 8 planets, special words such as orbit and asteroid.

Grade Level: 2 - 5th
Subject: Science
Length of Time: About 45 Minutes

Objectives & Outcomes
The students will know the 8 planets- their order, different sizes and their names. They will be familiar with new words, such as solar system, orbit, asteroid.

Materials Needed
- student notebooks
- projector
- computer with internet

Procedure

Opening to Lesson
- Begin by drawing a big sun on the board and “Solar System”. Ask the students if they know what this is, and ask for volunteers to come up to the board and draw anything they can think of that is related to the solar system. Discuss what makes up the solar system- stars, planets, asteroids: find out their background knowledge. If they are any words they don’t know, explain using diagrams.
- Students will watch a video (song )about the Solar System and the different planets. [https://www.youtube.com/watch?v=uVVfALI4MxU](https://www.youtube.com/watch?v=uVVfALI4MxU) (play it a few times)
- Ask students: What are the 8 planets? Can they remember them all, and in the right order.
- How long is a year? (time it takes for the Earth to go around the sun).
- Talk about what the word “orbit” means. Pause the video to explain what orbit means— the lines going around the sun is the “path” that the planets take. Does anyone know what an asteroid is?

Body of Lesson
- First the students will write in their notebooks their own definitions of:
  - Solar system, Orbit, Planet, Asteroid
- Next, divide the class into 2 groups.
Group 1

- Using different balls to represent the planets, students will arrange them in order. For example, basket ball- Jupiter, soccer ball- Saturn, 2 softballs- Uranus and Neptune, 2 ping pong balls- Earth and Venus, 1 jacks ball- Mars, 1 marble- Mercury.
- They will record in their NB, by drawing pictures of the planets (they should show that they understand that different planets have different sizes), their names and arrangement.

Group 2

- Choose 9 students to “be a planet”. One student is the sun. Give each of the 8 other students of piece of cardboard with the name of a planet on it. The students need to arrange themselves in a line in the right order. Then they physically (move) orbit around the sun.
- They will record in their NB, by drawing pictures of the planets, their names and arrangement.
- After 12 minutes, groups swap.
- If students don't finish drawing when time’s up, they can continue in the second activity: both group activities have the same aim.

Closing

- Students will watch another video (song) which gives more information about the sun, and the 8 planets: https://www.youtube.com/watch?v=BZ-qLUj_A0

Assessment & Evaluation

The students will provide evidence in their notebooks what they learnt— by looking at their definitions of the words and how they drew, positioned and labeled their planets, the teacher will be able to assess the students’ understanding.

Modification & Differentiation

- For homework students can research information about their favorite planet.
- Create a small poster with some pictures and some interesting facts.
- They could present it to the class, or just display them around the classroom.

Related Lesson Plans

Food Web Art Project

Students will discuss food webs and how animals interact together in an ocean biosphere and make a model of how animals get their energy from other animals and the sun.

Solar System

This lesson is designed to help students understand that “the orbits of Earth around the sun
and of the moon around Earth, together with the rotation of Earth about an axis between its North and South poles, cause observable patterns.

**Animal Habitats**

Students will learn to create a small version of an animal habitat using object in the classroom and personal drawings.

**Learning About The Sun**

This lesson is designed for help students understand day and night; daily changes in the length and direction of shadows; and different positions of the sun, moon, and stars at different times of the day, month, and year.