

Our Solar System

Grade Level	1	Workable grades	K, 1, 2, 3
Recommended Time	1 hour		
Curriculum Alignment	<p>Science 1-3: Construct, with guidance, an object that achieves a given purpose, using materials that are provided.</p> <p>Science 1-7: Construct objects and models of objects, using a variety of different materials.</p> <p>Science 1-8: Identify the purpose of different components in a personally constructed object or model, and identify corresponding components in a related object or model.</p>		

Background Information (Science required for the lesson) :

The Sun

- The sun is a yellow dwarf star; a hot ball of glowing gasses at the center of our solar system
- Its gravity holds the solar system together, keeping everything – from the biggest planets to the smallest particles of debris – in its orbit

The Planets (Ascending order of distance from Sun)

- Mercury: the smallest planet in our solar system; a little bigger than earth’s moon
- Venus: the hottest planet in our solar system
- Earth: our planet
- Mars: cold, desert planet; sometimes called the Red Planet because of rusty iron in the ground
- Jupiter: the biggest planet in our solar system; has big storms like the Great Red Spot, which has been going for hundreds of years
- Saturn: has many rings made of chunks of ice and rock
- Uranus: one of the two “ice giants”; it is very big and very cold.
- Neptune: the largest “ice giant”; it is the furthest planet from the sun and has 200 moons

Overall Solar System

- All planets besides Mercury and Venus have moons
- There are nearly 100 million rocky asteroids, primarily present between Mars and Jupiter in the asteroid belt
- There are more than 6000 icy comets that go around the sun

Explanation of Activity:	Notes:
<ol style="list-style-type: none"> 1. If possible put students into groups, and give each group 2m of string, 2 12" dowels and 2oz of playdough. 2. Cut a piece of string that is the length of your wrist to your elbow. 3. Cut the rest of the string into 9 equal pieces. 4. Tie the sticks in a cross shape with the longer piece of string. 5. Make a ball of playdough at the end of each of the 9 strings. Each ball should be a planet or the sun. 6. Tie the sun to the middle, and the planets to the dowels. We suggest 2 on each branch for balance purposes. 	<p>The strings and dowels should be pre-assembled for kindergarten classes.</p> <p>The activity will run faster if the strings are pre-cut (into the 10 pieces).</p> <p>Video on how to tie the sticks: https://drive.google.com/file/d/1fnGR12dEo_I_ZmAP8LcJcWie9cnLeQ_Fz/view?usp=sharing</p>

Materials Required (INCLUDE ALL MATERIALS NEEDED EVEN PEN AND PAPER)
<p>The listed are material per group:</p> <ul style="list-style-type: none"> ● 2x12" dowels ● 2m of string ● 2oz of playdough ● Scissors

Changes to the activity for COVID-19
<p>Send the teacher the pre-made kits (ziplock bags with all material for one group) and have AlbertaSat members present the slides remotely</p>