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SCIENCE ★ TECHNOLOGY ★ ENGINEERING ★ MATH

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# Solar Sweets

Just how big are the planets in our solar system? Venus to Saturn, M&M's to Peppermints, candy will help you visualize the relative size of each planet. This activity will bring out the sweet tooth in everyone!

**TEKS:**

3.8D Identify the planets in Earth's solar system & their position in relation to the Sun.

## Materials:

- Candy
  - Atomic Fireball
  - Cinnamon Imperials (Round Red Hots)
  - Giant Sweet Tarts
  - Gumballs
  - M&Ms
  - Peppermints
  - Smarties
- Orange

## How To

Compare the sizes of the planets and the sun using the candy sizes. Place them in order of the solar system. Then rearrange the planets in order of size, from largest to smallest.

- Sun - Orange
- Mercury - Cinnamon Imperials
- Venus - M&Ms
- Earth - Gumball
- Mars - Smarties
- Jupiter – Giant Sweet Tarts
- Saturn - Peppermint
- Uranus - Atomic Fireball
- Neptune - Atomic Fireball

## Why Does it Work ?

Planets are huge! The diameter of the largest planet, Jupiter, is 143,000km (88,900miles) and the smallest planet, Mercury, has a diameter of 4,900km (3,000miles). The diameter of Mercury is 100 miles longer than the distance from California to New York! In comparison, Pluto is a dwarf planet with a diameter of 2,300km (1,400miles).

 

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## Why Does it Work Continued...

The diameter of a planet is the straight line passing from one side of the planet to the other, crossing through the middle. These large dimensions are hard to image because we have never seen anything near these large sizes. For this reason we use relative size. Relative size of the planets is referring to how big the planets are when compared to each other and the sun. When we compare the orange to the different sizes or candies we can see that the sun is a lot bigger in proportion to any of the other planets. Also by looking at the candies we can see the planets compared to the other planets. We can judge the largest to smallest planets this way. In order from largest to smallest the planets go in this order: Jupiter, Saturn, Uranus, Neptune, Earth, Venus, Mars, and then Mercury. We used the same candy for both Uranus and Neptune because their sizes are almost exactly the same. Uranus is only slightly bigger than Neptune. Therefore the relative sizes of the two planets are the same compared to the other planets.

## Career Connection:

***Astronomers*** study planets, moons, stars, galaxies, meteors, comets and their interactions with each other. They must have an in depth knowledge of physics to understand how forces such as gravity change throughout space. Astronomers work together sharing their knowledge in order to better understand how the universe works at microscopic and macroscopic levels.

 