



astronomical:

- a) something related to outer space
- b) a very large number or amount

Mars Rover Model Celebration – Lesson Plan

Introduction:

If students do not know Astronomical means “related to outer space”, start HERE.

One of the new vocabulary words for this unit is **astronomical**. Astronomical has two meanings. Looking at the word parts that will help us understand its first meaning. **Astro** is the root word which comes from the Greek word for star. **“Nom”** is another Greek word that means “knowledge”. Finally, the suffix **“ical”** means “related to”. So the entire word means “related to the knowledge of stars or space”.

If students already know the space definition of Astronomical”, start HERE.

Since outer space is very large and has billions of stars and planets, astronomical has also come to mean “a large number or amount”. Let’s look at a picture that will help us understand this meaning of the word “astronomical”. The illustration shows an astronomical map, in this case, one of our solar system. And, even though the planets appear to be close together on this map, the distances between them are actually astronomical—for example the Earth is about 150 million kilometers from the Sun.

Example:

Here is another example for each meaning of astronomical. The planetarium maintains an astronomical telescope to observe the planets and stars.

There are an astronomical number of grains of sand on a beach. In addition, we can think something is astronomical when it is much more than we expect. For example, if you were used to paying 89 cents for a candy bar and all of a sudden, it costs 20 dollars, you might consider that price astronomical.

Reflection:

Discuss with a classmate the following. Use ASTRONOMICAL in your answers. Name as many astronomical objects as you can. Were any of these astronomical objects you named man-made? If not, think of some man-made astronomical objects. *planets, comets, asteroids, moons, satellites, telescopes, etc...*

Make it personal:

Think for a moment about something that you think has an astronomical price. What is the item and how much does it cost? Why do you think the price is astronomical? Share your thinking with your partner. Be certain to use astronomical in your sharing. When I ask you, be prepared to share your response with the class. *Responses will vary*