GOES-R

Understanding Satellite Orbits

In this activity you will be exploring satellite orbits.

Activity 1

Please write your answers on a separate piece of paper.

Activity 1.1 Satellites

- 1. Define satellite in your own words.
- 2. Explain how satellites may aid us on a daily basis.



Activity 1.2 Orbits

Use the Why do satellites have different orbits? link to help complete the following:

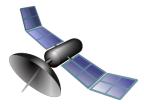
- 1. Compare and contrast polar satellite orbits to geostationary satellite orbits.
- 2. Explain why there is a need for both polar and geostationary orbiting satellites.
- 3. GOES is an acronym for what device?

Activity 1.3 GOES Satellite

Use the <u>How does a satellites job dictate its</u> <u>orbit?</u> link to complete the following:

- 1. Explain the relationship between the altitude of a satellite above the surface of the Earth and the rate at which it travels around the Earth.
- 2. Describe the type of orbit the GOES has.
- 3. How often does the GOES orbit the Earth?
- 4. Compare the rate of the GOES orbit to the rate at which the Earth rotates.

Additional Activities:



Visit the <u>CIMSS</u> website to learn more about satellites and to play educational games.