

Find Yourself with Satellites and GPS IPA



To complete this Interest Project Award, girls must complete the following:

- (2) Skill Builders
- (1) Technology
- (1) Career Exploration
- (1) Service Project
- (2) of their Choice

Skill Builder

1. Find your House and find the Capital of your State using the following website, www.terraserver.microsoft.com or earth.google.com
2. Locating with satellites-What do we mean by "Fosur equations and four unknowns"
3. How does law enforcement use GPS? Give three examples.
4. How do satellite phones work and when are they most useful?
5. How is GPS useful in a disaster? Give three examples.
6. Use a personal GPS and use Geostationary Earth Orbit (GEO) caching, (treasure hunt)
7. Location of satellites as overhead, Low Earth Orbit (LEO), watch space station passes overhead (delete **CRB**)
8. Build a satellite. Visit the interactive online exhibit built by Lockheed Martin Enterprise Information Systems for the San Jose Tech Museum. <http://www.thetech.org/> (Home page)

1. Go to http://www.thetech.org/exhibits_events/online/
2. Under **Exhibits**, there is a link to **Online Exhibits:** <http://www.thetech.org/exhibits/online/>
3. Scroll down that page and you will see an interactive page on building a satellite. <http://www.thetech.org/exhibits/online/satellite/>

Technology

1. List uses for satellites and identify which have Information Technology (IT) Professionals involvement.
2. List at least 5 uses for GPS. Repeat above, delete?
3. How do satellites enable us to use GPS?
4. How are satellites put in orbit? Describe the launching and positioning method.
5. What are the pros and cons of using GPS / Onstar in your car?

Service Project

1. Using a GPS lead a group of younger Girl Scouts on a hike.
2. Use a GPS to help someone create a map of land boundaries, fishing buoys or something else

Career Exploration

1. Research an industry leader and prepare/present a biography summary
2. Research what a Satellite Geographer does
3. Interview a Satellite Designer or someone who uses a GPS in their career.
4. Log on and listen to On-line Technology Explorer Workshop for Satellite GPS.