

Name: \_\_\_\_\_

## Collecting Data with GPS


**Introduction:** The **Global Positioning System (GPS)** provides location information in all weather conditions, anywhere on Earth where there is a signal to three or more **GPS satellites**. Three satellites are needed to determine **latitude and longitude coordinates**, while a fourth is needed to determine **elevation**. Since the GPS system relies only on satellite signals, it does not require telephone, wifi, or internet reception!



The US government created this system of 24 satellites for military uses but it is now freely accessible to anyone with a **GPS receiver**. Most cell phones are now made with tiny GPS receivers installed; however, this feature may be turned off because it can use up bandwidth when on.

### Directions:

1.) Use a GPS unit to find and record the **latitude and longitude coordinates** of FIVE different locations in the park. Record the values in the table below.

- Press the **power button** ⑤ (next to light) to turn on your GPS unit.
- Use the thumb joystick ③ to scroll down to **satellite**.  Gently PUSH the joystick in to select this option
- You may need to wait a few minutes for the GPS receiver to detect at least three satellites.
- Record simple information about the location in the Notes column. (Ex: bench, large tree, etc.)

Site	Latitude	Longitude	Notes
1	42.693781	-77.953048	Maplewood Lodge
2	42.73213	-77.905547	Mt. Morris Dam
3	42.741986	-77.882917	Mt. Morris Entrance
4	42.584607	-78.045246	Falls Area
5	42.602242	-78.02202	Big Bend

2.) When done, press the **power button** ⑤ for a few seconds to turn OFF your GPS unit.