Tools of Geography

Many tools of Geography focus on obtaining information about the earth and converting it into map form.

The earth's four (4) spheres:

- 1. The atmosphere = the collection of gases that surrounds the planet
- 2. The hydrosphere = the water part including oceans, rivers and lakes
- 3. The lithosphere = the solid part including rocks, minerals, and sediments
- 4. The biosphere = the living organisms and ecosystems of the planet

These intersect at or near the surface of the earth.

Tools for cartography

- 1. Fieldwork and observation
- 2. Statistical data
- 3. Remote sensors = satellites and related technology
- 4. GPS = Global Positioning Systems
- 5. GIS = Geographic Information systems

What is Geography, Especially Physical Geography?

Geography tries to obtain a holistic understanding of the earth by merging environmental processes with human interaction. Physical geography is part of the larger collection of disciplines known as Earth Systems Sciences. Geography is a way of analyzing phenomena that change across distance or space. Consequently it is a spatial science with 5 major themes:

- 1. Location = where things are.
- 2. Human-environment relationships = how people interact with their environment. How do environmental processes work?
- 3. Region = How do processes aggregate to create areas with uniform character?
- 4. Movement = the transfer of people or materials across distance.
- 5. Place = every place is unique. How does a place its own unique character.