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.