

001. Introduction to Geography	
1.What is Geography? -the study of the physical features of the earth and its atmosphere, and of human activity as it affects and is affected by these -includes the distribution of populations and resources, land use, and industries	Geography
2.The Five Themes of Geography: a. Location: The particular location of a point on Earth's surface, expressed by a grid reference b. Place: an area that is defined by everything in it Places have physical characteristics (landforms and plant and animal life), as well as human characteristics (economic activities and languages) c. Region: An area with traits that distinguish it from other areas and which are of value to people d. Movement: Movement is the travel of people, goods, and ideas from one location to another. e. Human-environment interaction: how people interact with the environment, and how the environment responds, with three key concepts: 1. Dependency: humans needing the environment 2. Adaptation: humans changing over time 3. Modification: humans changing the environment	Location Place Region Movement H/E interaction Dependency Adaptation Modification
Summary statement: Geo is the study of the physical features of the earth/atmosphere, how it effects humans, and how humans effect it, in both the short-term and the long-term	

002. Introduction to Geography

1. Location:

- The position of a person or feature on Earth
- Earth = 3rd planet from Sun, Milky Way Galaxy
- Mental map - images of places contribute to our visual sense of a space
- GPS (Global Positioning System) gives precise location in coordinates

Location

- **Prime Meridian:** imaginary line drawn north/south through Greenwich, England
- **Equator:** an imaginary line running east/west dividing the earth into two hemispheres
- **Latitude:** imaginary lines on the earth drawn east and west, measures are given north and south of the equator
- **Longitude:** imaginary lines on the earth drawn north and south; measures are given east and west of the prime meridian
- **Absolute location:** grid reference using Lat/Long
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Prime Meridian

Equator

Latitude

Longitude

Abs. Location

2. Place - chosen based on human characteristics

- Population distribution
- Language & ethnic background
- Nationality
- faith/belief

Place

Factors of Location:

- Basic needs (water shelter, food, security, clothing)
- Change: over time, communities ebb & flow
- Political/Military value

Factors of Location

Summary statement:

Location = coordinates, and Place = cities, parks, towns, communities **MAP 1**

003 Earth's Layers:

- **Atmosphere** - nitrogen, oxygen, carbon dioxide, other gasses
 - Ionosphere
 - Stratosphere
 - Troposphere
 - Lower atmosphere
- **Hydrosphere** - water on the surface (lakes, oceans, rivers)
- **Lithosphere** - earth's surface (crust) 5-50 km thick, on top of earth's mantle
- **Biosphere** - plants, animals, people

Resources from the atmosphere:

- Ozone layer - blocks UV, affected by hydrocarbon

Resources from the Hydrosphere:

- Water for crops, industry,
- desalination is a concern (expensive)
- Invasive species need management

Resources from the Lithosphere:

- Rock, gravel, sand, minerals, coal, natural gas

*** Not renewable -- alternatives are needed

Diagram 1

Earth's Atmosphere:

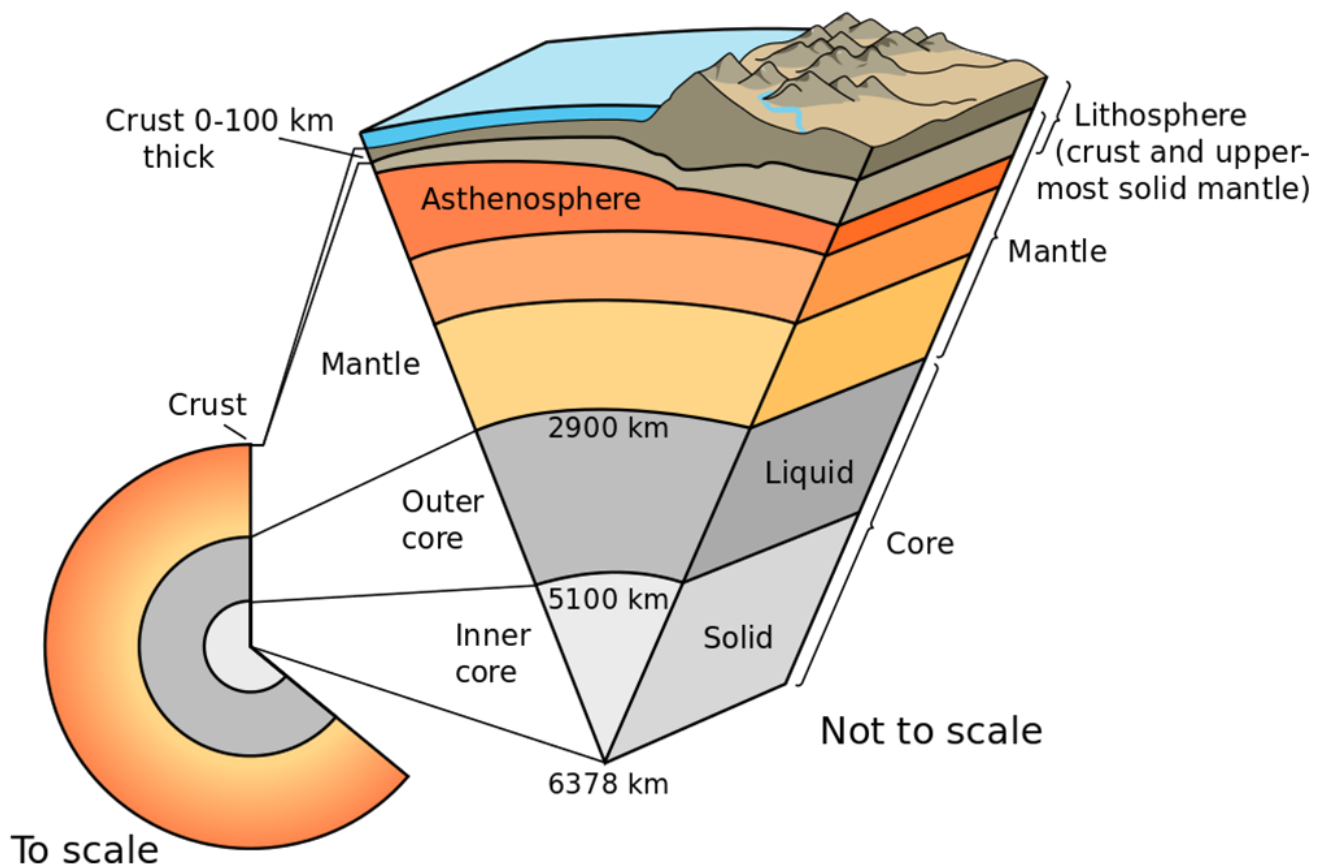
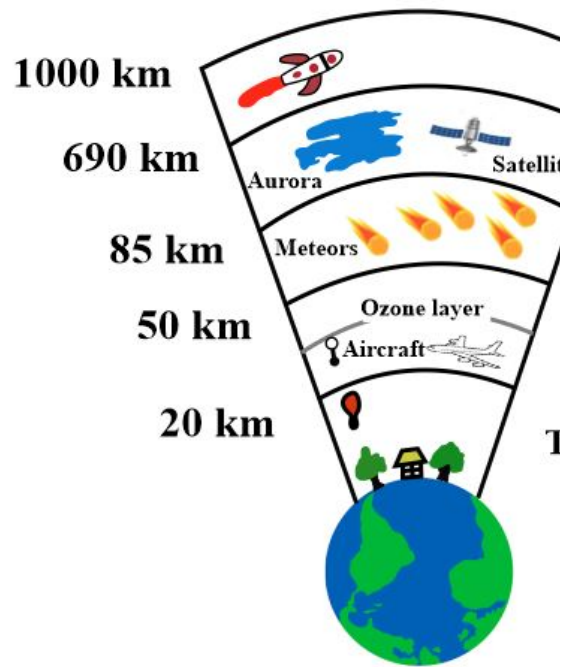
Exosphere

Ionosphere

Stratosphere

Troposphere

Lower atmosphere



004. Introduction to Geography 3. Region: an area that has a defined set of characteristics (must have criteria and boundaries) Wilderness regions: no people live there Rural regions: open countryside, few towns, about 20% of Canada's population Urban regions: little open countryside, 80% of our population Defined by Physical, Human and Functional Characteristics: Physical: mountains, plains, Deserts, Landforms, geology, climate, soil Human: population density, culture, language, politics, time zones Functional: ports, need for a mineral or resource Regional Boundaries: - Divides (drainage areas, basins) MAP 2 North America Divides - Natural Boundaries - Artificial Boundaries	Region Wilderness Rural Urban <u>Characteristics</u> Physical Human functional

005 Canada's Physical Regions:

The Canadian Shield: covers 48% of Canada

- a. extends from the Great Lakes and the St. Lawrence River to the Arctic Ocean
- b. Precambrian rock (4 billions years old) that is rich in
- c. minerals.

Resources:

- Minerals, forests, freshwater

Landform Features:

- Striations (lines scraped into rocks)
- drumlins (long hills of glacial sediment)
- Permafrost - continuously frozen subsoil, limits root systems

Vegetation:

- Boreal Forest (mix of coniferous and deciduous trees)

Task - outline and label on Canadian Physical Regions Map



004 Canada's Physical Regions:

The Appalachian Region - 3.6 per cent of Canada's land surface.

- a. Extends between the St. Lawrence Lowlands to the northwest and the Atlantic Continental Shelf to the east and southeast.
- b. mosaic of uplands and lowlands, forests and pockets of arable land, skiing hills

The Cordillera Region - 16% of Canada

- a. includes plateaus, valleys and plains as well as rugged mountains (the Rockies).
- b. sedimentary and volcanic rock, metamorphic rock, igneous veins
- c. Varied climate and growing conditions

The Arctic Region: 21% of Canada

- a. dominated by the Arctic Ocean basin, and the icy reaches of Scandinavia, Russia, the U.S. state of Alaska, Canada, and Greenland.
- b. the area within the Arctic Circle, a line of latitude about 66.5° north of the Equator
- c. Continuous permafrost and treeless tundra are distinctive features.

005 Canada's Physical Regions:

The Interior Plains: 18 per cent of Canada's land surface.

- a. lies between the Canadian Shield and the Western Cordillera.
- b. vast expanses of sedimentary bedrock consisting mainly of poorly consolidated shales, siltstones and sandstones.

The Hudson Bay Lowlands: 3.2 per cent of Canada's land surface.

- a. It is a sedimentary basin, much of which lies under Hudson Bay and James Bay.
- b. the bedrock terrain is completely masked by a mantle of glacial and marine sediments associated with the advance and retreat of ice during the glacier age

St Lawrence Lowlands 1.8 per cent of Canada's land surface

- a. between the Canadian Shield to the north and the Appalachian Region to the east and southeast.
- b. densely populated
- c. Major cities in this region include Windsor, Toronto, Ottawa, Montreal and Quebec City.

alluvial fan archipelago arroyo badlands barrier island shoal slough basin bay bluff brook caldera canal tar pit terrain cataract delta dendritic drainage pattern escarpment estuary fissure fjord geyser gorge grotto ice field tidal basin trellis drainage inlet island isthmus lagoon lakebed loess lowland mainland mesa tributary Volcano moraine basin	
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oasis oceanic trench oxbow lake plain plateau prairie ravine reef Watershed Yardang salt marsh	

006 Natural Resources of Canada

- a. Renewable vs. Non-Renewable Resources
- b. Energy Resources (Oil, Gas, Hydroelectricity)
- c. Forests and Forestry
- d. Agriculture and Fisheries

Climate and Weather

- f. Factors Affecting Climate
- g. Climate Regions of Canada
- h. Weather Patterns and Forecasting

Population and Settlement

- i. Population Distribution
- j. Urban vs. Rural Settlement Patterns
- k. Indigenous Perspectives: Traditional Territories and Land Use

Economic Activities

- I. Primary, Secondary, and Tertiary Industries
- m. Trade and Transportation Networks
- n. Challenges in the Canadian Economy

Cultural Diversity and Heritage

- o. Multiculturalism in Canada
- p. Contributions of Indigenous Peoples
- q. Cultural Landmarks, Traditions, and Festivals

Environmental Issues

- r. Pollution and Conservation Efforts
- s. Impact of Human Activities on the Environment
- t. Sustainability and Traditional Ecological Knowledge

Global Connections

- u. Canada's Role in the Global Community
- v. International Trade and Relations
- w. Global Issues and Indigenous Perspectives on Globalization

Conclusion: Looking Ahead

- x. Future Challenges and Opportunities
- y. Your Role as a Global and Indigenous Citizen