

# **CANADIAN GEOGRAPHY 1202**

UNIT 1:

NATURAL AND HUMAN SYSTEMS

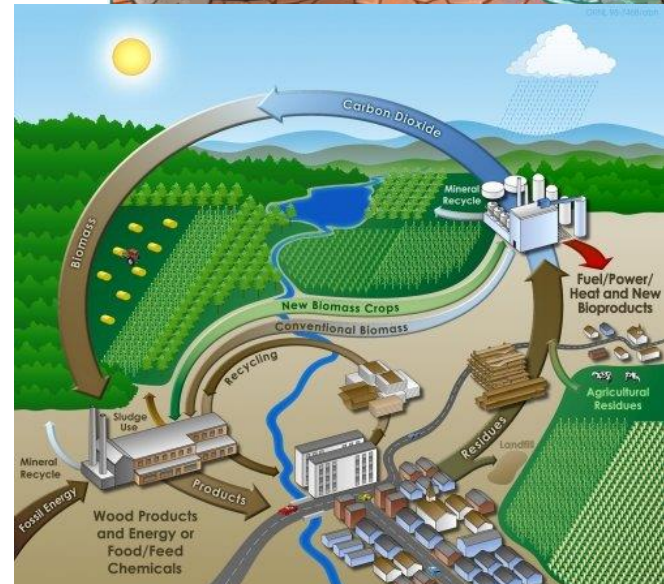
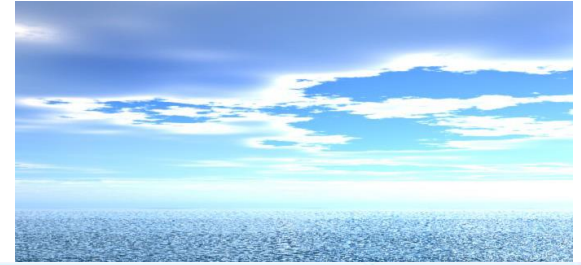
**WHAT IS A SYSTEM?**

# SYSTEM

- A SYSTEM IS MADE UP OF DIFFERENT PARTS THAT CONNECT TO FORM A WHOLE.
- THERE ARE MANY DIFFERENT TYPES OF SYSTEMS OF VARIOUS SIZES.
- A COMPLEX SET OF DYNAMIC (continually changing) SYSTEMS MAKES UP OUR WORLD
- THEY CAN BE BROKEN INTO 2 CATEGORIES:
  - NATURAL SYSTEMS
  - HUMAN SYSTEMS

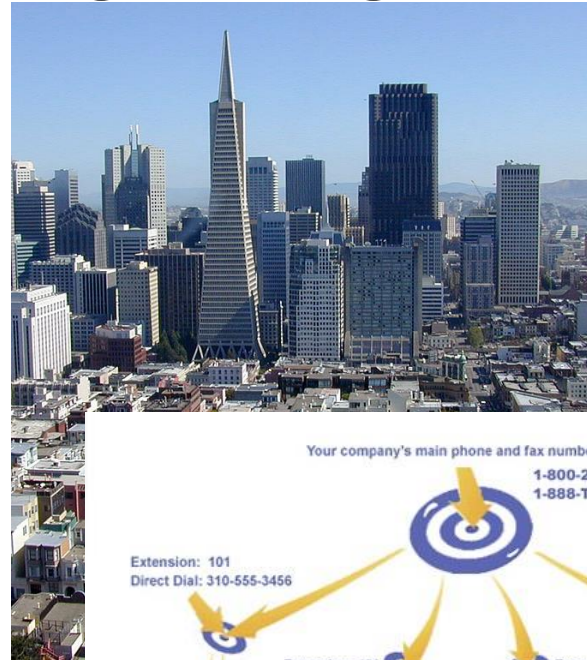
# NATURAL SYSTEMS

- THE SYSTEMS THAT OCCUR IN NATURE
- INCLUDE THE CIRCULATION OF WATER IN THE OCEAN, WEATHER AND CLIMATE SYSTEMS, WATER DRAINAGE SYSTEMS AND ENERGY CYCLES
- THESE FORM THE **ECOSYSTEMS** THAT MAKE UP OUR ENVIRONMENT
  - WE WILL DISCUSS ECOSYSTEMS MORE LATER!



# HUMAN SYSTEMS

- CREATED BY PEOPLE
- INCLUDE HUMAN SETTLEMENTS, TRANSPORTATION SYSTEMS AND COMMUNICATION SYSTEMS

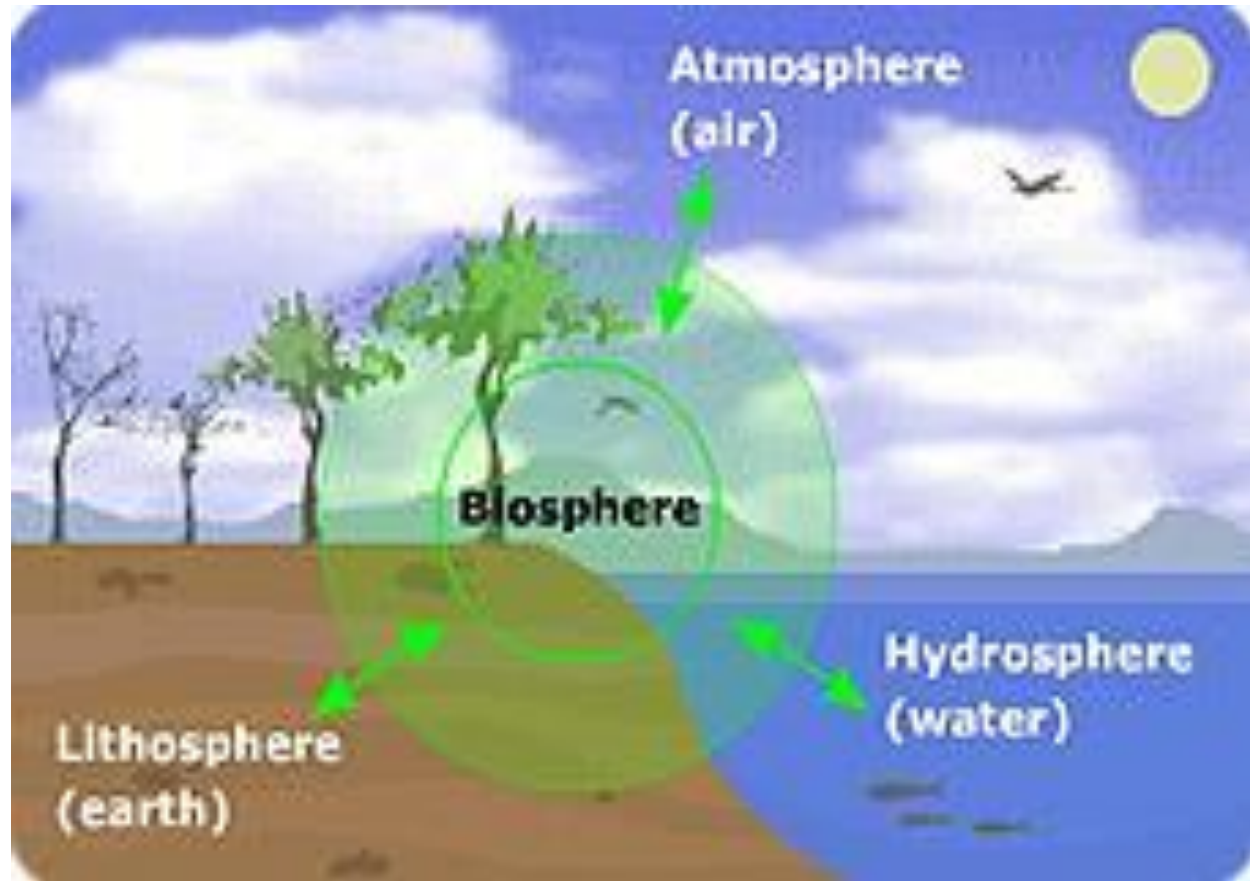


# WHY STUDY GEOGRAPHY USING A SYSTEMS APPROACH?

- BY STUDYING RELATIONSHIPS AMONG THE NATURAL AND HUMAN SYSTEMS, GEOGRAPHERS CAN UNDERSTAND THE PROCESS THAT MAKES THINGS THE WAY THEY ARE AND IT HELPS THEM MAKE BETTER DECISIONS ABOUT THE FUTURE OF OUR PLANET.

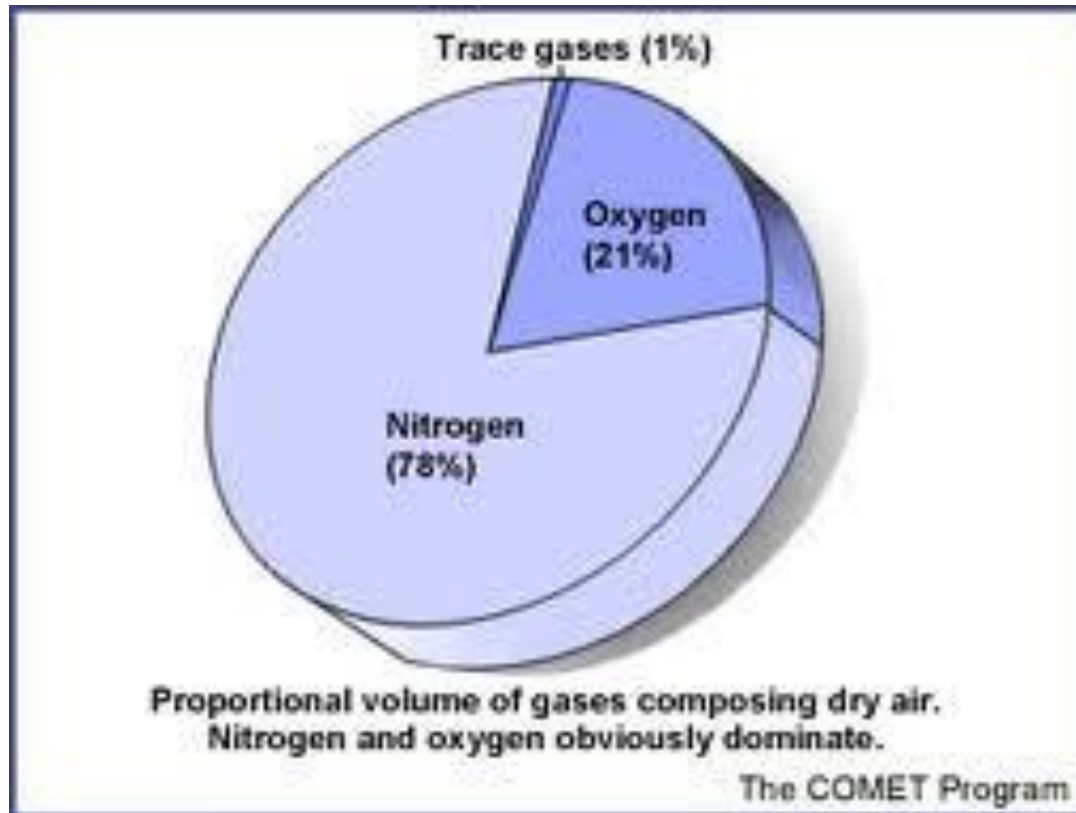
# THE FOUR INTERCONNECTED SPHERES OF EARTH:

- ATMOSPHERE
- LITHOSPHERE
- HYDROSPHERE
- BIOSPHERE



# THE ATMOSPHERE

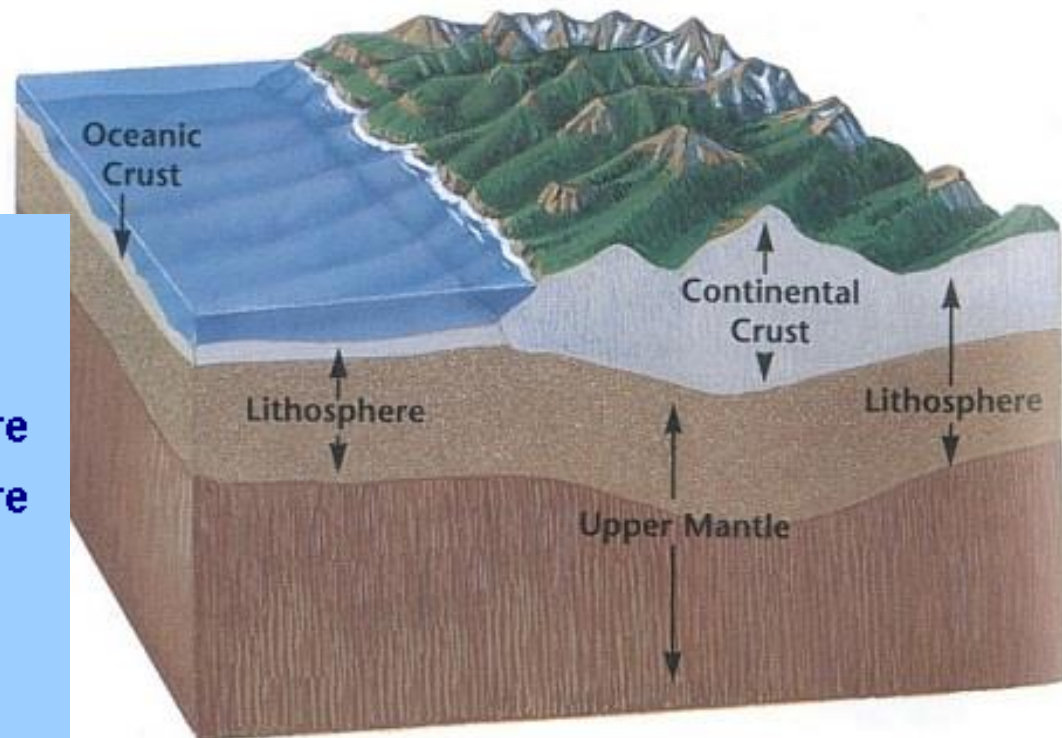
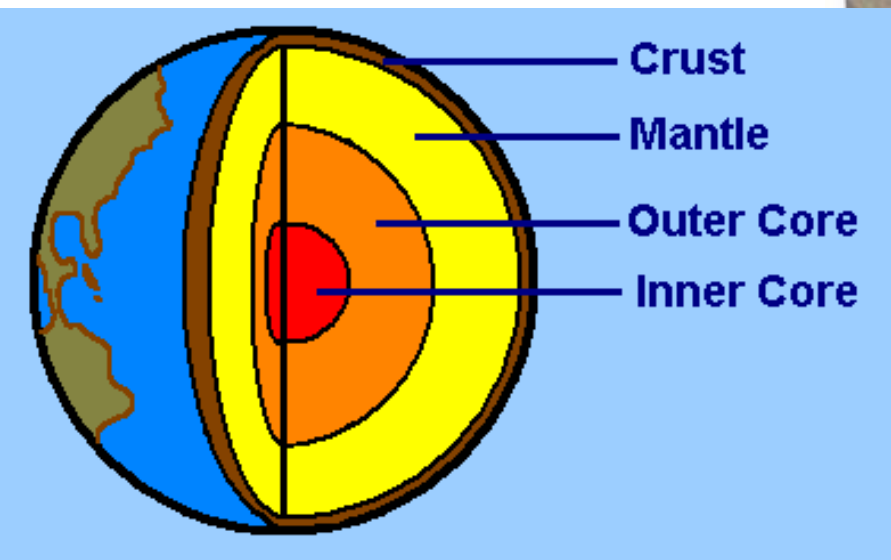
- Surrounds Earth as a thin layer of mixed gasses that makes up the air you breathe
- The atmosphere protects you from the sun's intense energy and distributes heat on Earth.





# THE LITHOSPHERE

- Includes Earth's crust and uppermost part of the mantle.
- It consists of rocks, minerals and soil
- The thickness of the lithosphere depends on location

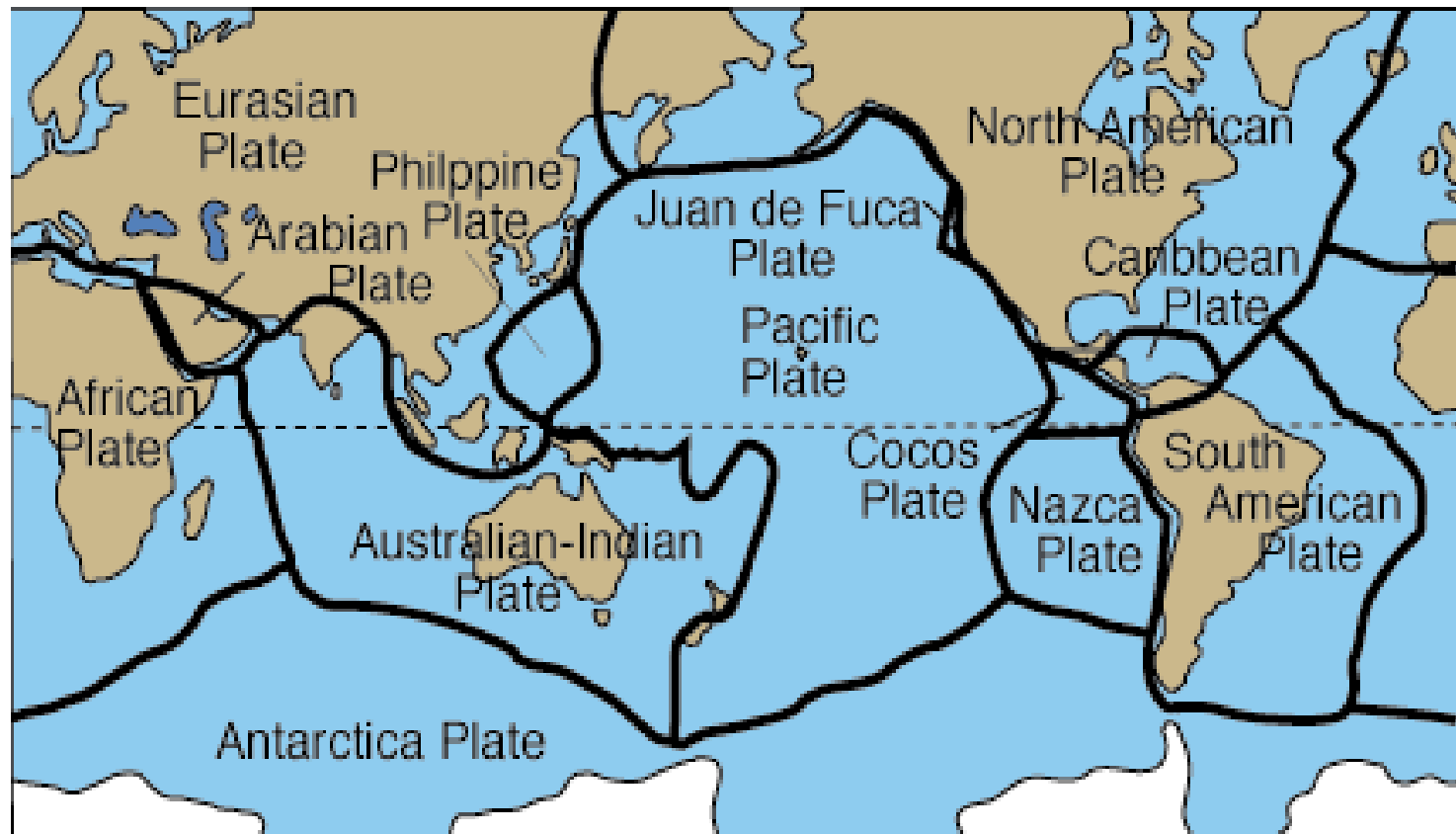


**CRUSTAL PLATES:** pieces of the lithosphere

**PLATE TECTONICS:** slow movement of these plates on the underlying mantle.

This movement causes mountain-building, volcanoes and earthquakes.

*More on this later!*



Major tectonic plates of the world.

# THE HYDROSPHERE

- All of the water on Earth's crust – salty, fresh and frozen.
- Includes oceans, lakes, rivers, glaciers, swamps and water vapor.
- 70% of Earth is ocean



# THE BIOSPHERE

- Means “sphere of life”: is the layer of Earth in which life evolves.
- Supports all living things: millions of species , including those in the atmosphere and hydrosphere.
- Oftentimes, all of the spheres together are referred to as the biosphere because all of life on Earth interacts.

**Biosphere**

**Atmosphere**

**Biosphere**

**Hydrosphere**

**Lithosphere**

