



Earth Science



What is Earth Science?

Fields of science dealing with planet Earth:

Geography, Geology, Geophysics, Hydrology, Glaciology, Meteorology, Atmospheric Physics, Ecology, etc.

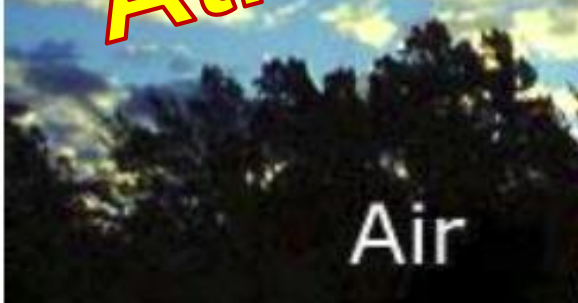
What does Earth Science study?

How the Earth system works, and how it evolved to its current state.

What is *Earth system*?

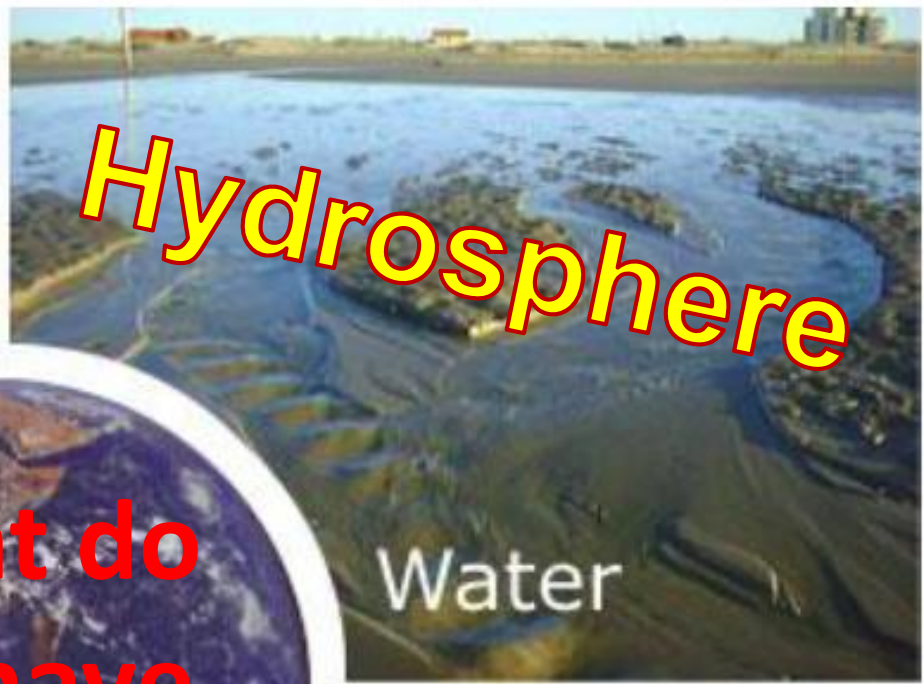


Atmosphere



Air

Magnetosphere



Hydrosphere

Water



What do we have on Earth?



Lithosphere

Land



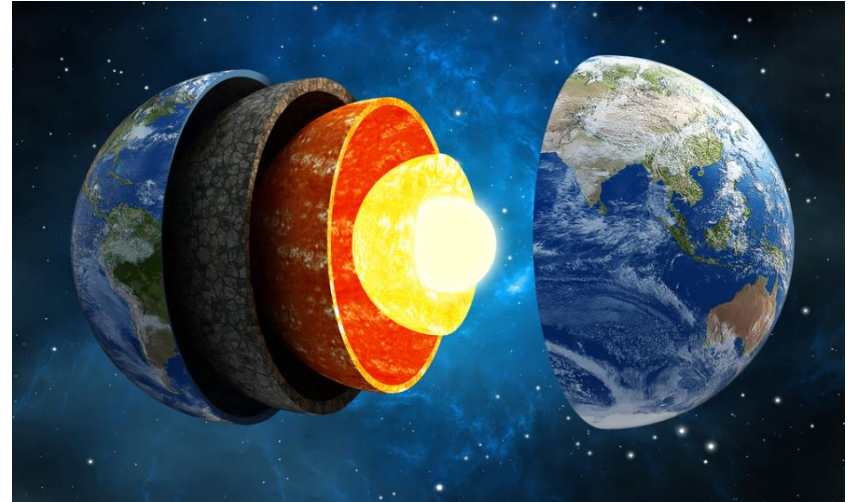
Biosphere and Anthroposphere

Life

Physical Spheres of the Earth

1. PLANET EARTH

- Shape and size
- Formation
- Internal structure



2. LITHOSPHERE: The Solid Surface

- Types and age
- Tectonic processes
- Volcanic processes



Physical Spheres of the Earth

3. HYDROSPHERE: The Water

- Physical state of water
- Water cycle
- Ocean circulation, tides
- Glaciers, sea ice



4. ATMOSPHERE: The Air

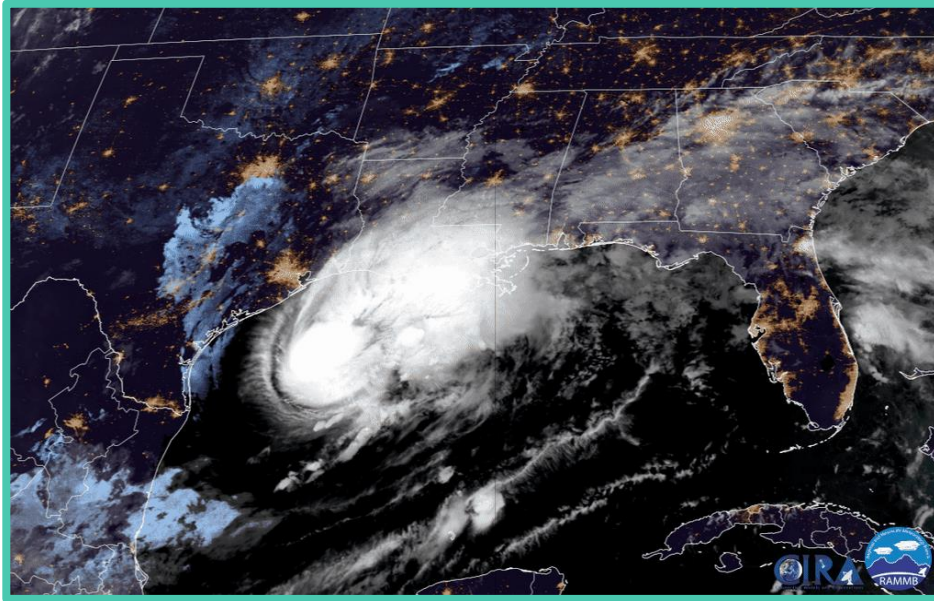
- Layers
- Air masses and wind
- Weather and storms



What do we see on Earth changing?



What's happening on Earth now?



Hurricane Francine
made landfall in Louisiana on September 11 and is now a post-tropical cyclone

5 moderate earthquakes
rocked the Earth yesterday (no strong ones, and over a 100 week ones!)



Where is Earth?

the Local Supercluster

the Local Group

the Milky Way Galaxy

the Universe

Orion Arm

Earth

the Solar System
(not to scale)

