



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's *Earth system*?



Air



Water



What do we have on Earth?



Land



Life

Six Spheres of the Earth

Lithosphere

Hydrosphere

Atmosphere

Magnetosphere

Biosphere

Anthroposphere

Six Spheres of the Earth

1. LITHOSPHERE: The Solid Earth

- Internal structure
- Tectonic processes
- Volcanic processes



2. HYDROSPHERE: The Water

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



Six Spheres of the Earth

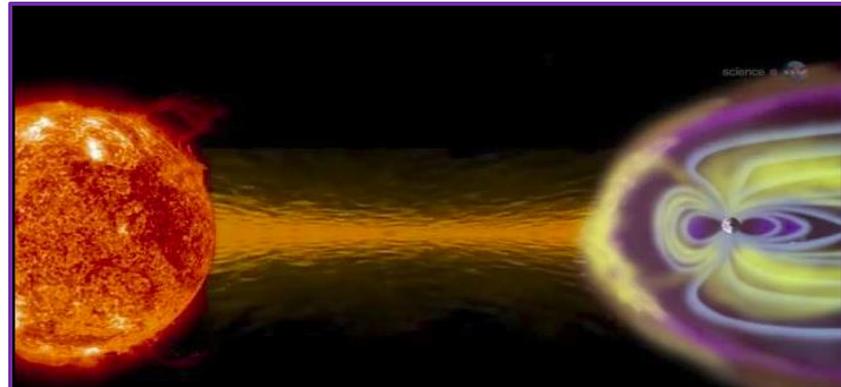
3. ATMOSPHERE: The Air

- Layers
- Air masses and wind
- Weather and storms



4. MAGNETOSPHERE: Magnetic Field

- Structure
- Solar wind
- Aurora Borealis



Six Spheres of the Earth

5. BIOSPHERE: All Living Matter

- Ecosystem
- Biomes



6. ANTHROPOSPHERE: Homo Sapiens Impact

- Ecology
- Pollution
- Deforestation



this course does not cover these two

What is Earth?

What is Earth made of?

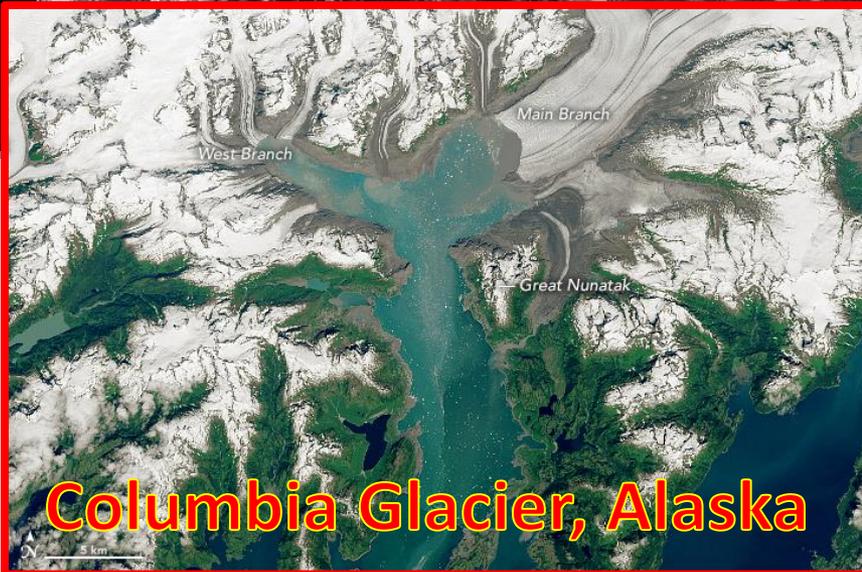
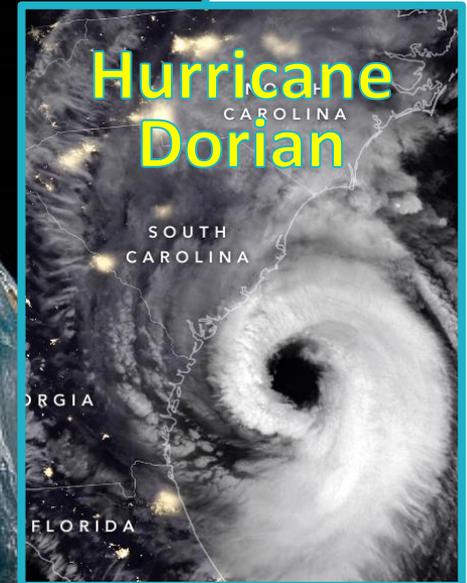
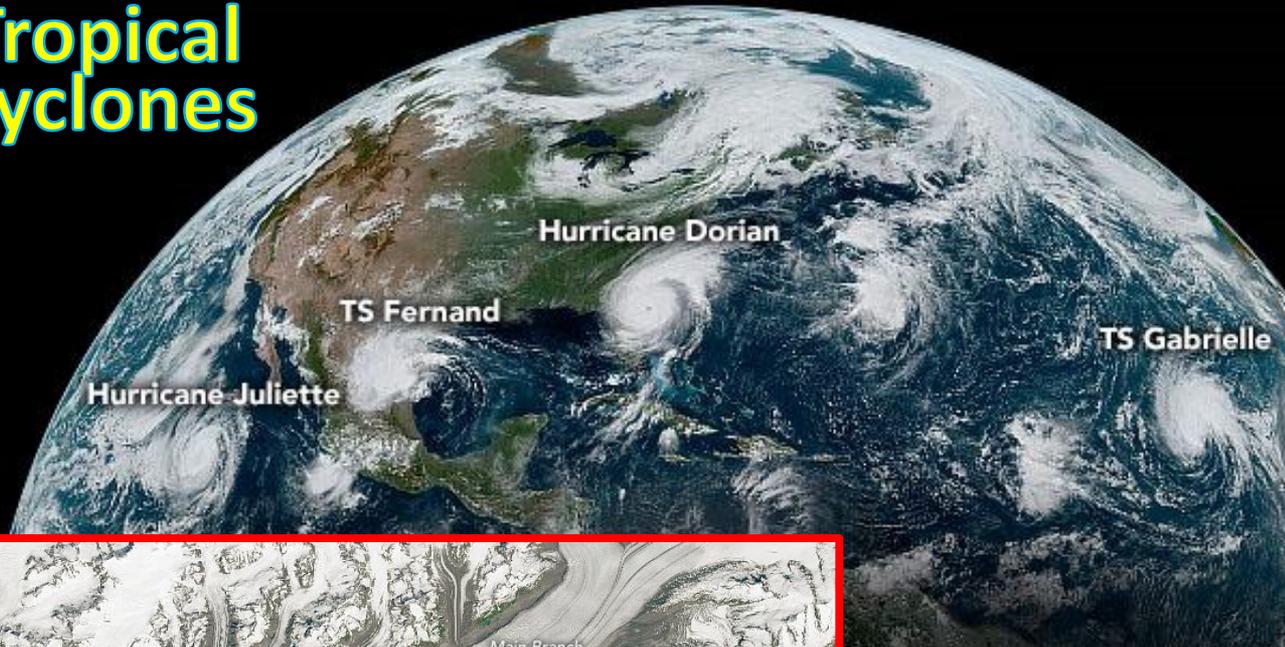
How does Earth work?

What do we see on Earth?



What's happening on Earth now?

Tropical Cyclones



Columbia Glacier, Alaska



Stromboli Volcano, Italy