



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



Hydrosphere



Air

Magnetosphere



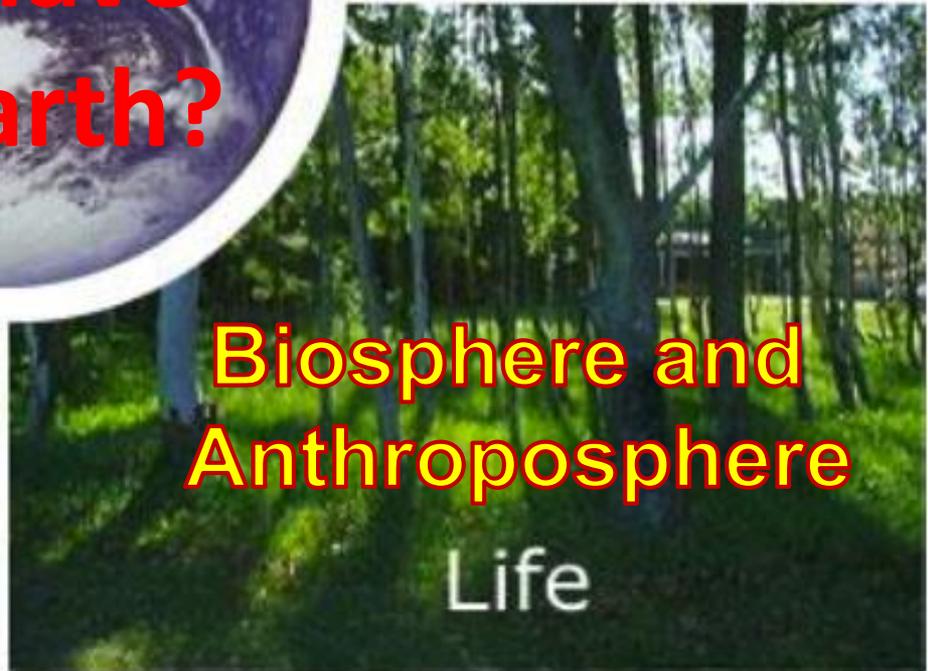
What do we have on Earth?

Water



Lithosphere

Land



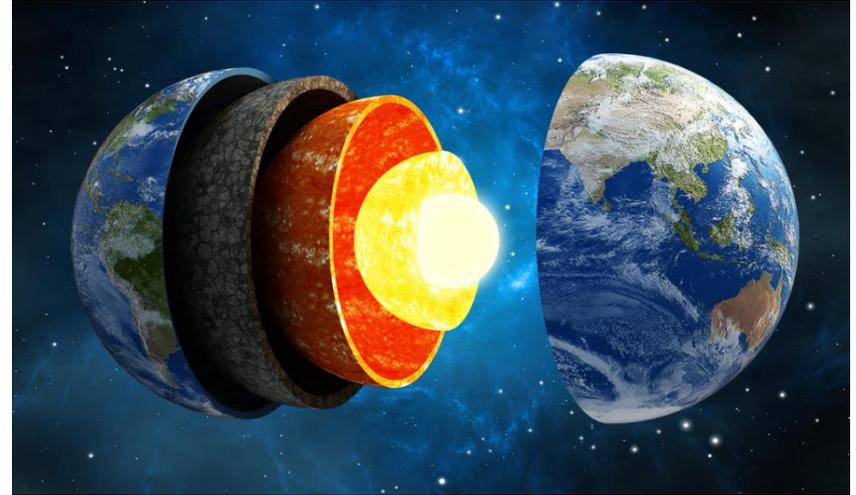
Biosphere and Anthroposphere

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

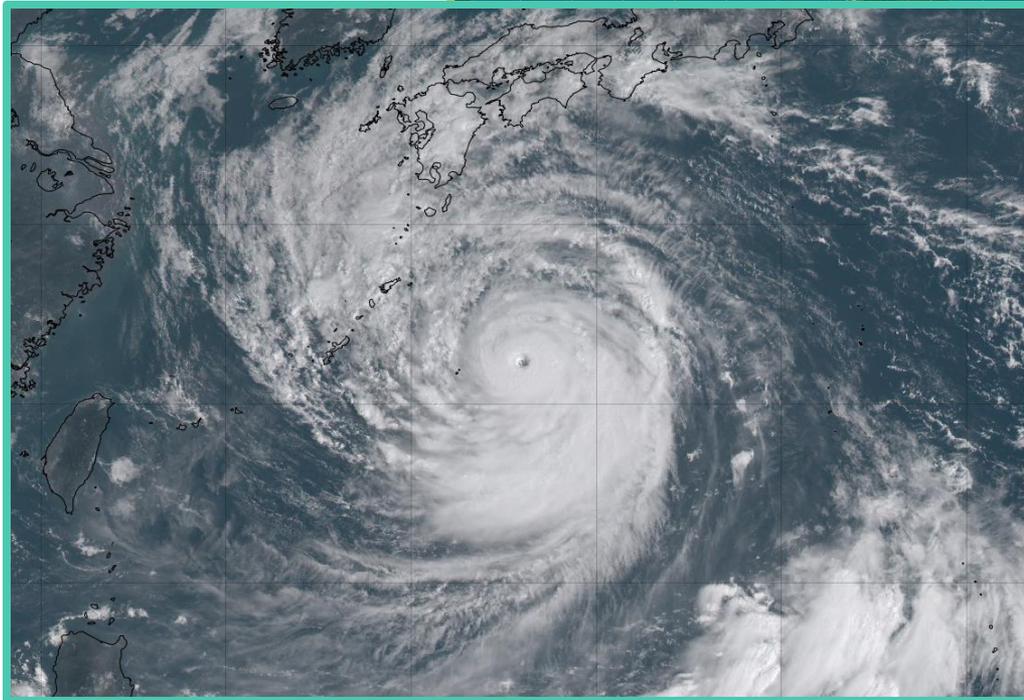
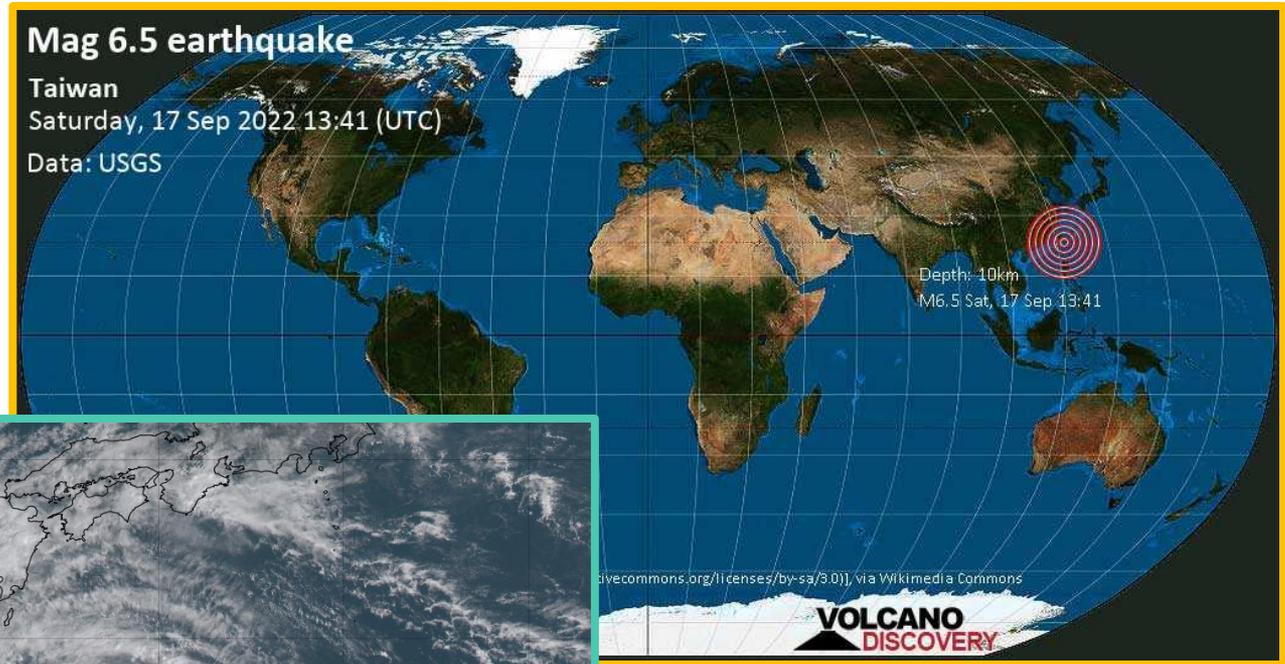


What do we see on Earth changing?



What's happening on Earth now?

Major
earthquake
rocks
Taiwan



Super Typhoon
Nanmadol
approaches
Japan

What's happening on Earth now?

Home Reef volcano,
Tonga Islands



Submarine
eruption
led to form
a new island!