



# 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

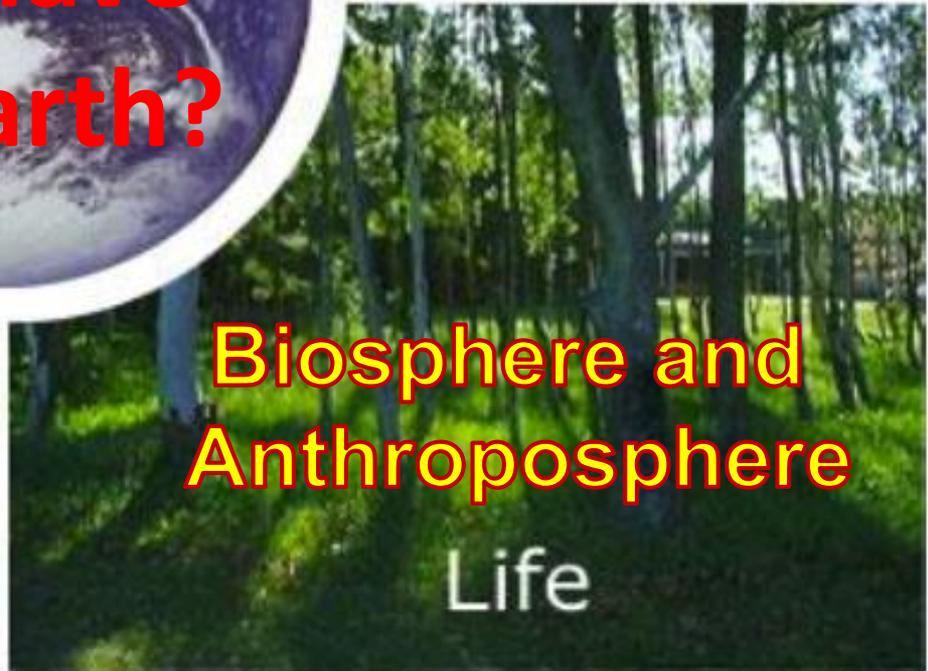


**What do we have on Earth?**



**Lithosphere**

Land



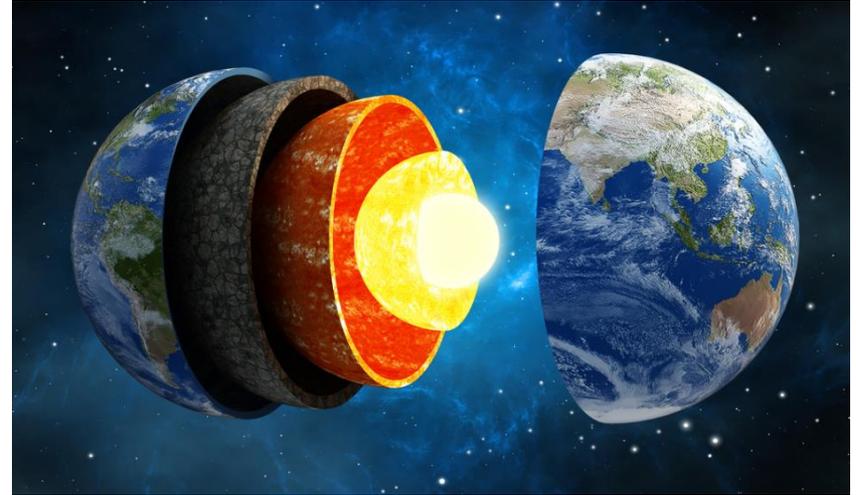
**Biosphere and Anthroposphere**

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

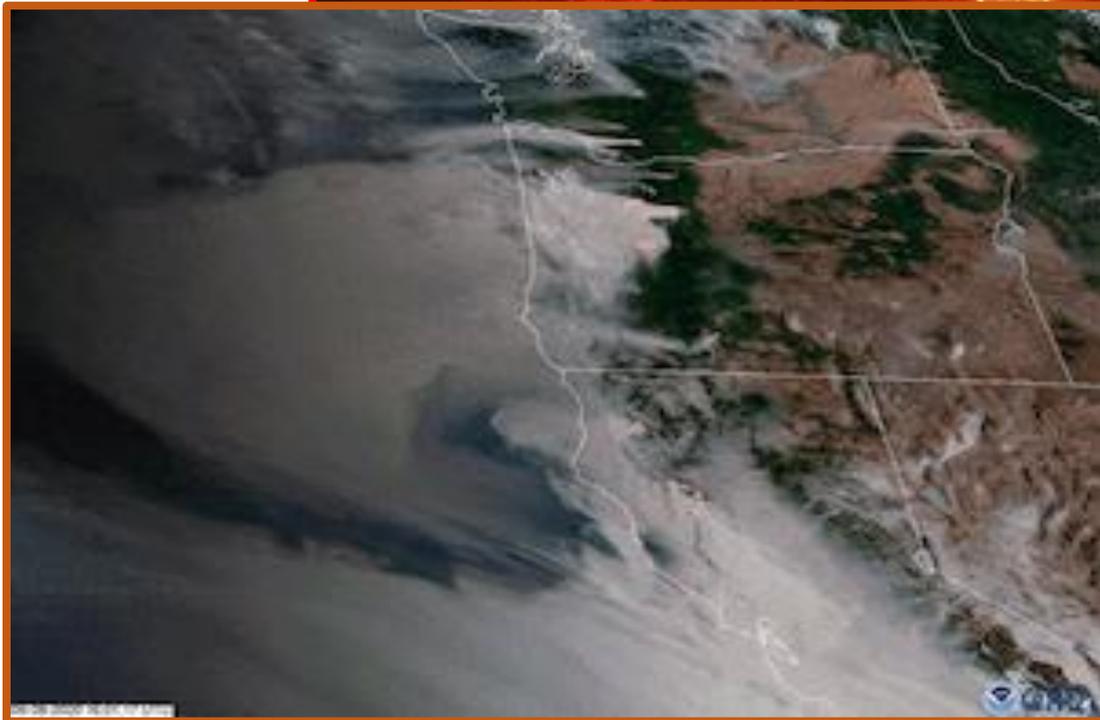


# What do we see on Earth changing?



# What's happening on Earth now?

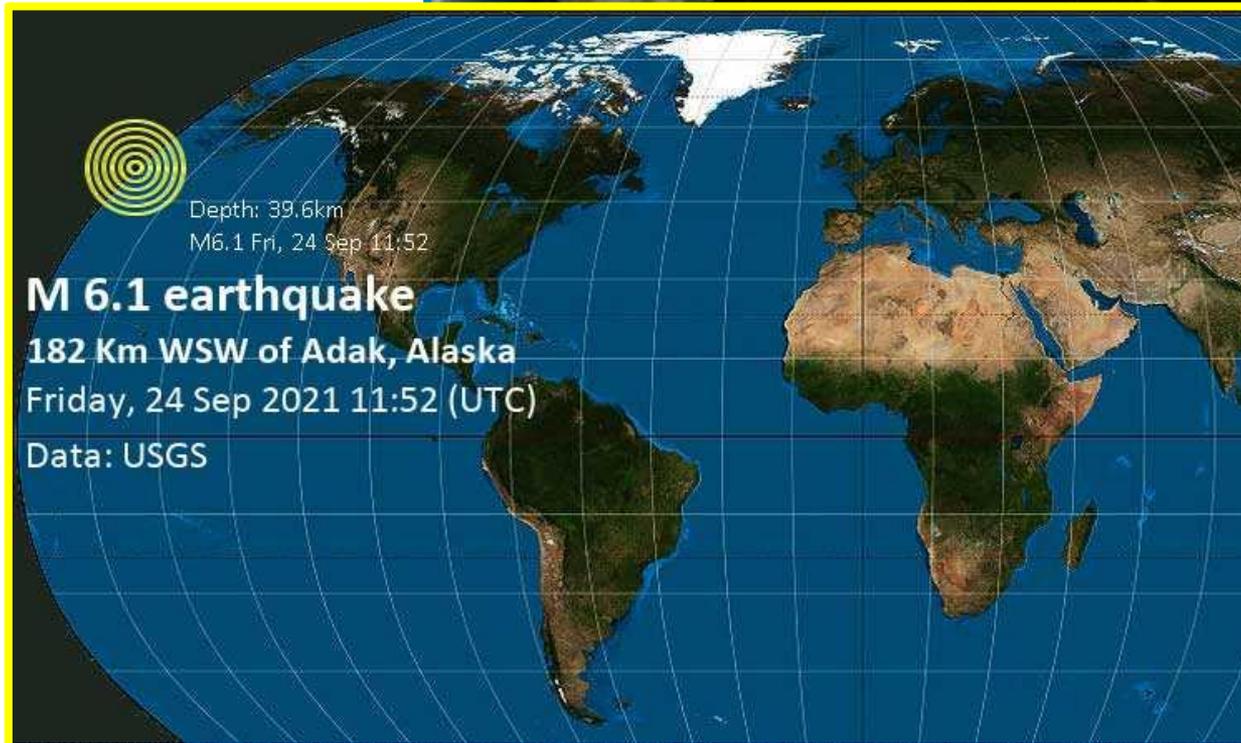
Canary  
Islands  
volcano  
erupting



West Coast  
Wildfires

# What's happening on Earth now?

Hurricane  
**Sam**  
in the  
Atlantic



**Strong  
Earthquake  
in Alaska**

# Where is Earth?

the Local Supercluster

the Local Group

the Milky Way Galaxy

the Universe

Earth

the Solar System  
(not to scale)

