# EARTH'S LAYERS

## COMPOSITIONAL

Chemical components of each layer

1

2

3.

## MECHANICAL

Physical properties of each layer

1.

2.

3.

4

5.

### Where do geological processes happen?

**Earthquakes** happen when tectonic plates move past each other. The energy released during this process causes seismic waves and shaking in the **Earth's crust**.

**Erosion** is a natural geological process in the **Earth's crust** that involves the gradual wearing away and removal of materials, such as soil, rock, and sediments, by natural forces.

**Volcanic eruptions** happen when molten rock called magma, coming from the **Earth's mantle**, rises up through volcanoes or cracks in the **surface**.

**CORE**
mostly iron and nickel

**MESOSPHERE**
up to 2900 km thick; forms the lower mantle

**MANTLE**
more iron and magnesium than the crust

**INNER CORE**
up to 1250 km thick; a solid ball due to intense pressure

**LITHOSPHERE**
**averages to about** 100 km thick; crust and top portion of the mantle; where tectonic plates are found

**OUTER CORE**
up to 2200 km thick; only true liquid layer of the Earth and responsible for its magnetic field

**CRUST**
made up mostly of oxygen and other common elements such as silicon and aluminum

**ASTHENOSPHERE**
**averages to about 140** km thick; a plastic layer of the mantle that flows but is not