

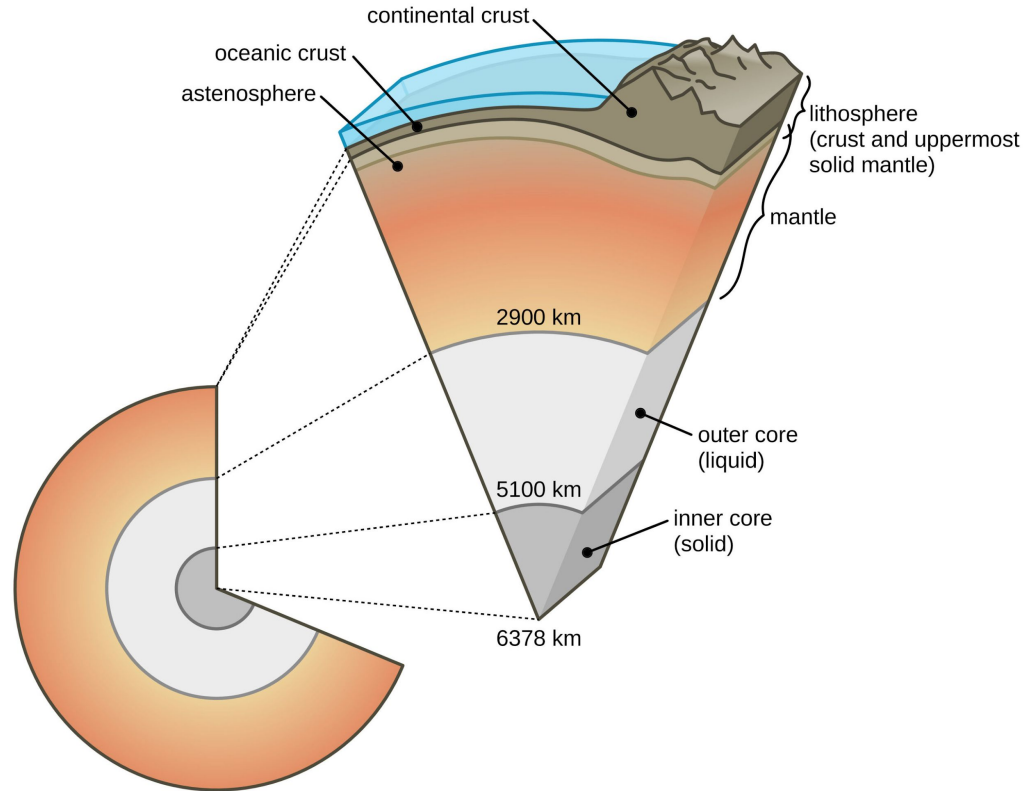
# The Rock Cycle

Week 7

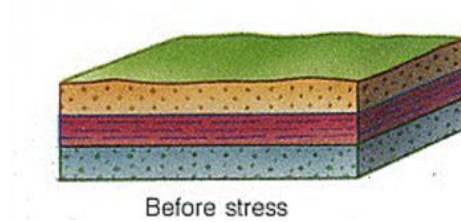
Science Explorers



# What is the earth made of?

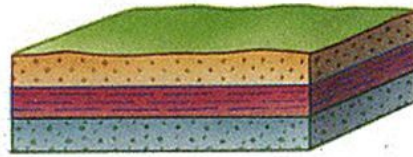


What type of forces do rocks feel?

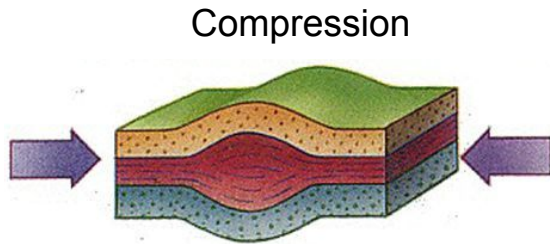


Think back to your plate tectonic lesson!

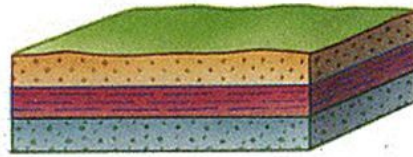
# What type of forces do rocks feel?



Before stress

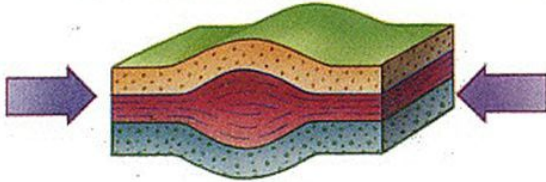


# What type of forces do rocks feel?

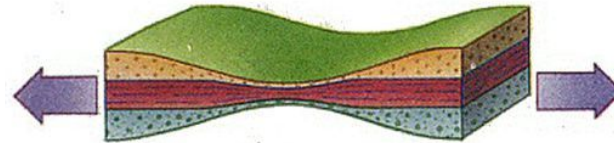


Before stress

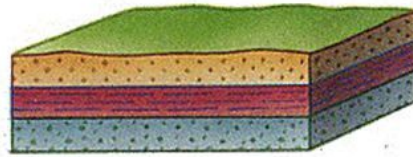
Compression



Tension

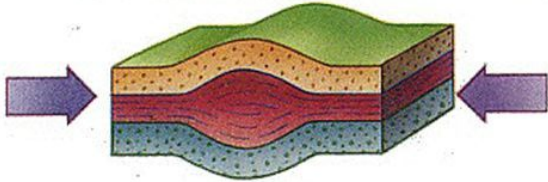


# What type of forces do rocks feel?

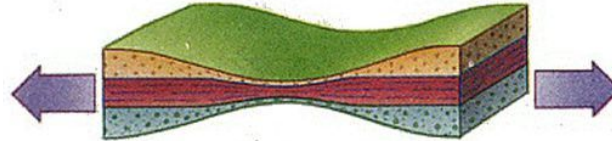


Before stress

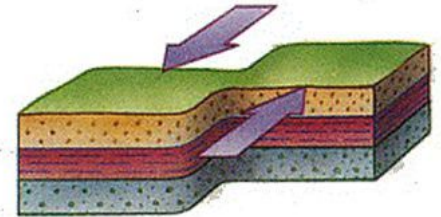
Compression



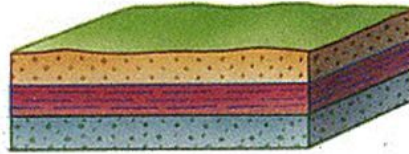
Tension



Shear stress

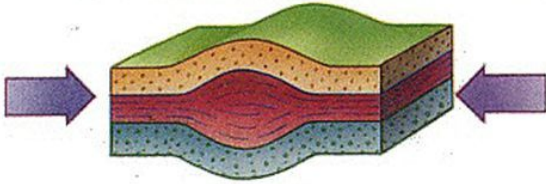


# What type of forces do rocks feel?

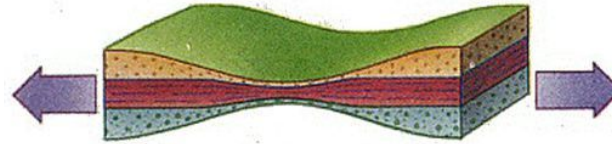


Before stress

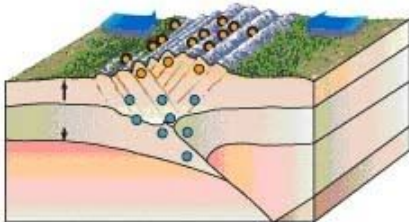
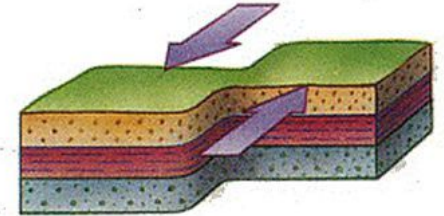
Compression



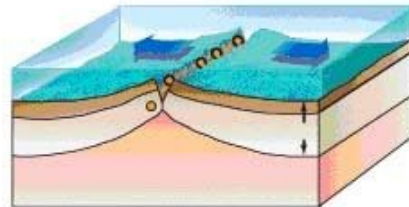
Tension



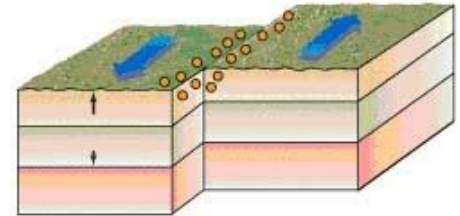
Shear stress



CONTINENTAL COLLISION BOUNDARY



DIVERGENT BOUNDARY



TRANSFORM FAULT BOUNDARY

# Examples of results of this stress: folding





# Examples of results of this stress: faults



San Andreas fault  
Speed: 30mm to 50mm per year



# What causes rocks do undergo this stress?



Volcanic  
activity

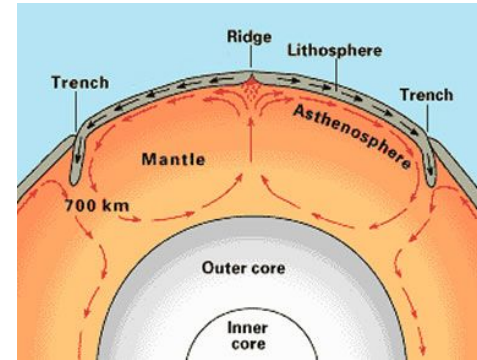


Plate  
Tectonics

# Stress on the rocks on the surface



## EROSION

- Erosion refers to the displacement of solids such as water, wind and ice



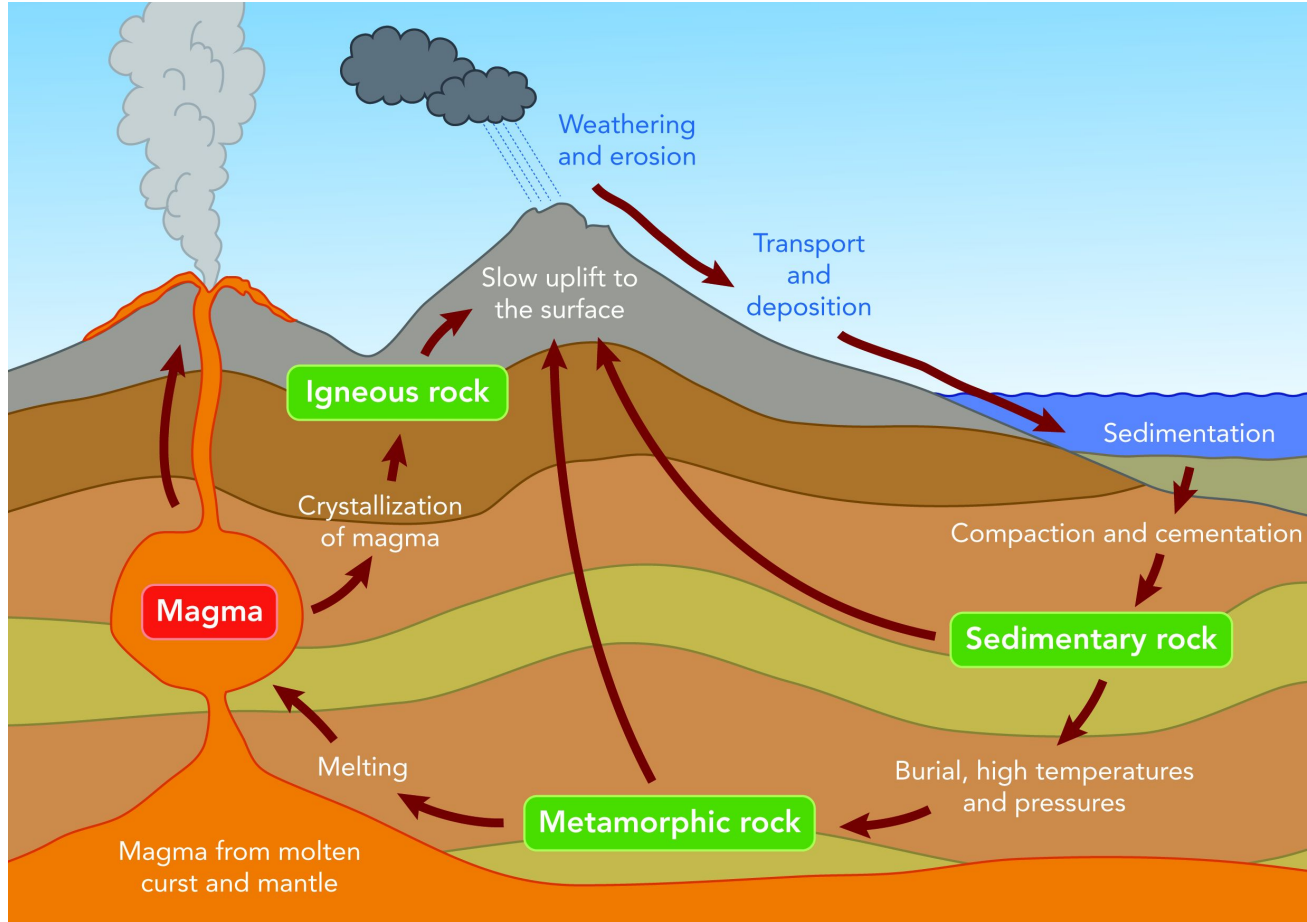
## WEATHERING

- Weathering refers to the decomposition of soils and their minerals and rocks through direct contact with the earth's atmosphere

Weathering and erosion leads to really cool structures



# The Rock Cycle



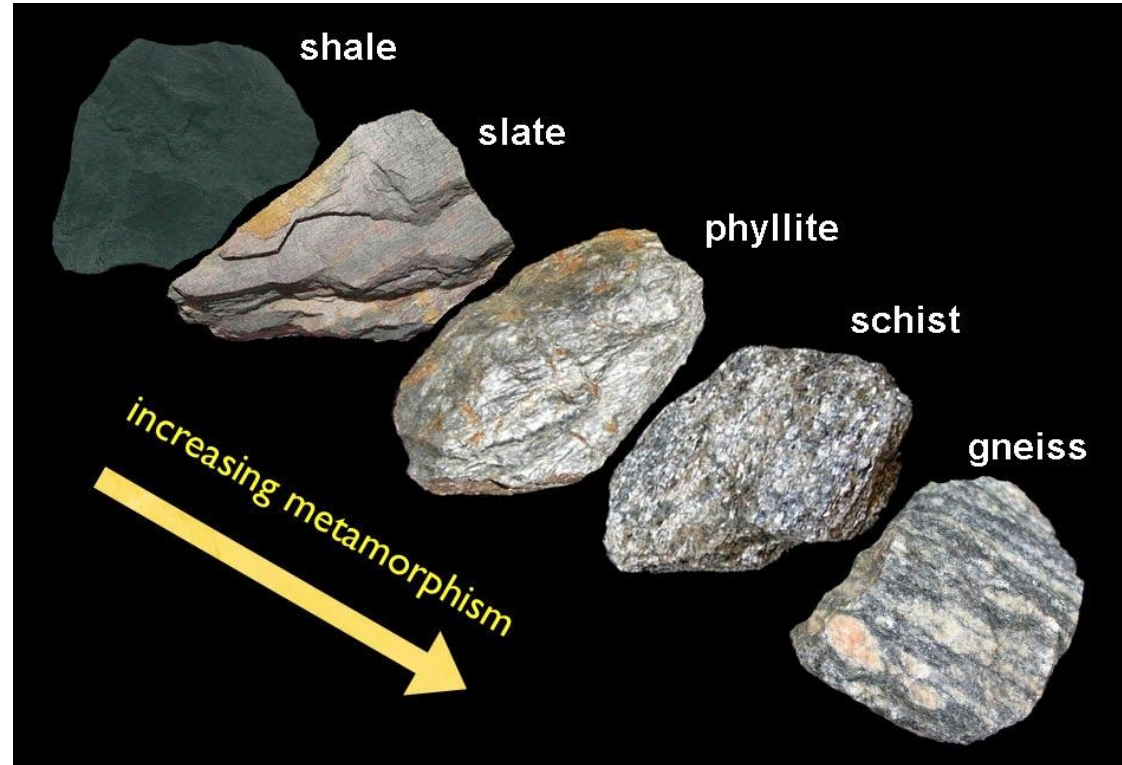
# Sedimentary Rocks

- Formed from compaction of sediments, or minerals dissolved in water.
- It can contain fossils
- It shows particles of rocks and minerals joined together
- It can have sheets of horizontal layers



# Metamorphous Rocks

- Form through pressure and heat from existing rocks.
- The more pressure it experiences, the more banding occurs.



# Igneous Rocks

- Formed from solidification of molten rock
- It can cool inside the earth or on the surface of the earth
- It has glassy texture
- It can also have gas pockets





# Activity

1. Soapy Stress!
2. Simulate your own rock cycle with Starburst!