EARTHQUAKES

Jahad, Jamir, Sa’d, and Jayden

Visual

- At a random time in our presentation, we will make loud noises; maybe with the tables, chairs and/or other items (illustraiting an Earthquake).
- Students/audience will then perform the safety precautions that we will explain to them in the circumstances of an earthquake.

PROPER SAFETY PRECAUTIONS AND PREVENTION STRATEGIES FROM EARTHQUAKES. (Sa'd)

- *Stay away from outer walls, windows, fireplaces, and hanging objects.*
- *If you are unable to move from a bed or chair, protect yourself from falling objects by covering up with blankets and pillows.*
- *If you are outside, go to an open area away from trees, telephone poles, and buildings, and stay there.*

WHAT CAUSES EARTHQUAKES AND WHY DO THEY HAPPEN? (JAMIR)

- EARTHQUAKES ARE CAUSED BY THE MOVEMENT OF TECTONIC PLATES UNDER THE EARTH'S SURFACE.
- THE EARTH'S CRUST IS DIVIDED INTO MANY LARGE AND SMALL PLATES THAT FLOAT ON THE ASTHENOSPHERE.
- WHEN THESE PLATES INTERACT, THEY EITHER MOVE APART, COLLIDE, OR SLIDE PAST EACH OTHER.
- MOST COMMONLY WHEN THE PLATES COLLIDE, IT CAUSES THE GROUND WE WALK ON TO RUMBLE, OR AS WE CALL IT, A EARTHQUAKE HAPPENS.

EXAMPLES OF MASSIVE EARTHQUAKES THAT OCCURRED IN THE PAST:

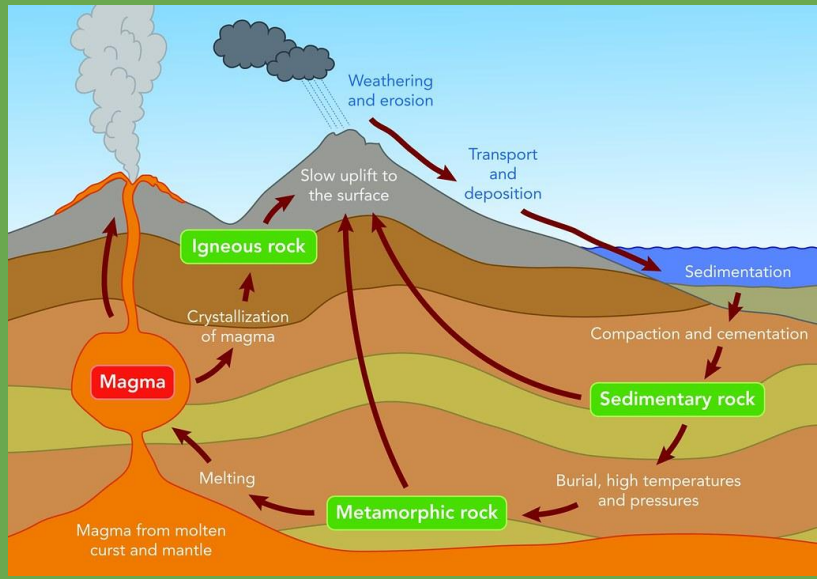
- HAITI EARTHQUAKE (2010)
- SAN FRANCISCO EARTHQUAKE (1906) I
- NDIAN OCEAN EARTHQUAKE (2004)

WHAT EARTH SYSTEMS ARE INCORPORATED IN EARTHQUAKES AND HOW DO EARTHQUAKES IMPACT THEM? (JAYDEN)

- EARTHQUAKES START OUT BY A DISRUPTION IN THE GEOSPHERE, THIS USUALLY AFFECTS THE ATMOSPHERE BY RELEASING METHANE INTO THE AIR AND THE HYDROSPHERE BY CAUSING HUGE WAVES WHICH THEN CAUSES POLLUTION IN THE BIOSPHERE.

- TECTONIC PLATES DIVIDES THE EARTH'S CRUST INTO PLATES WHICH THEN FORCES THE SOLID EARTH'S STRUCTURE TO CHANGES IN THE STRUCTURE OF THE EARTH'S CRUST, WHICH IS USUALLY THE RUPTURE OF UNDERGROUND ROCK MASSES.

What forms of matter and cycles of matter pertain to earthquakes? (Jahad)



Forms of Matter:

- Solids
  - Rocks
  - Tectonic Plates

Cycles of Matter:

- **Rock cycle**
  - As the plates move, stresses build. When the stresses build too much, the rocks break. The break releases the energy that is stored in the rocks. The sudden release of energy is an earthquake.