NOTES -History of our Earth

Geologic Time Scale

* How History is Broken Up!

 Largest to smallest divisions of time

 **Eon** – All of our history is in one Eon

 **\_\_\_\_\_\_\_\_** – (3-4 of them)

 **Period** – (14 of them)

 **\_\_\_\_\_\_\_\_** – (6 of them only in the 2 most current periods)

* EON

 \_\_\_\_\_\_\_\_\_\_\_\_ DIVISION OF TIME

 ONLY (1)

 COVERS ALL OF TIME

* ERA

 (3)

– BASED ON DIFFERENCES IN \_\_\_\_\_\_\_\_\_\_\_\_

- END WITH MASS \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* PERIOD

 (14)

- BASED ON EXISTING \_\_\_\_\_\_\_\_\_ AND \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ EVENTS

 (MOUTAIN BUILDING AND PLATE MOVEMENT)

* EPOCH

 (7)

 Only found in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Era –it is the most recent of the fossil records

 Information is most complete

**Precambrian Time (Era)**

* The \_\_\_\_\_\_\_\_\_\_ division of time (furthest back)
* Most of Earth’s history occurred in this time
* Not really considered an Era but a \_\_\_\_\_\_\_\_\_\_\_\_
	+ Because it took in so much time
	+ 551,000,000 to 4,600,000,000 years ago
	+ (551 – 4600 MYA)

**Precambrian Time (Era)**

* Simple \_\_\_\_\_\_\_\_\_\_\_\_
	+ \_\_\_\_\_\_\_\_ celled organisms – \_\_\_\_\_\_\_\_\_\_\_\_and bacteria
* Several phases of mountain building
	+ \_\_\_\_\_\_\_\_\_\_\_\_ were moving

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Era**

* Second oldest time division
* Broken up into 7 Periods
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Mountains began to form
* First appearance of:
	+ \_\_\_\_\_\_\_\_\_\_, amphibians, land plants and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Mesozoic Era**

* The (3rd) division of time
* Contains the following Periods:
	+ Triassic – \_\_\_\_\_\_\_\_\_\_\_ first appearance
	+ Jurassic - birds and \_\_\_\_\_\_\_\_\_\_\_\_\_\_
	+ Cretaceous – first \_\_\_\_\_\_\_\_\_\_\_\_\_\_ plant
* Age of the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Atlantic ocean began to form
* Rocky Mountains began to form
* Dinosaurs became \_\_\_\_\_\_\_\_\_\_\_\_\_(near the end)
	+ Dinosaurs were really not around that long.

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Era**

* The Era we are currently in
* Is broken up into periods and Epochs

 Tertiary Period

* + Paleocene, Eocene, Oligocene, Miocene, & the Pliocene Epochs

 Quaternary Period

* + Pleistocene and Holocene Epochs
	+ We are in the Holocene Epoch currently
* \_\_\_\_\_\_\_\_\_\_\_ occurred – this could be proof of why the dinosaurs died out????
* Formation of the Grand Canyon
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ first appeared

Extinctions

Permian Extinction

* Occurred about 245 MYA (245,000,000)
* Happened between \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Time and the Paleozoic Era
	+ Happened at the end of Proterozoic Period/ beginning of the Permian Period
* Extinctions set a division between Eras
* Extinction of:
	+ 50 % of all animals
	+ 95% of all water (marine species)
	+ Many trees
	+ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Geologists think this Extinction could have been caused by:
	+ Global wide spread \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
	+ Lowering of sea levels
	+ Rapid \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ at times
	+ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Eruptions - change the atmosphere
	+ Major fluctuations of temperature
* Pangaea was forming at that time

Cretaceous – Tertiary Extinction

* Also Called the \_\_\_\_\_\_\_\_ Extinction
* Occurred Between the Cretaceous and Tertiary Periods
* Reason why we started a new Era at this point (a way of making divisions)
* About half of all life died out
	+ Including Dinosaurs, families of: fish, \_\_\_\_\_\_\_\_\_\_\_, sponges, sea urchins, and many other water organisms

Pleistocene Ice Age

* Most current Ice Age
* Happened only 1,800,000 – 10,000 years ago (1.8 MYA – 10,000 years)
* Much of the Earth’s Temperate Zones were **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** covered by glaciers during cooling periods
* Then warmed during interglacial periods, when glaciers retreated
* Did not likely cause a Mass Extinction