**Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Hr \_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Introduction to Understanding Earth**

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_ is the study of \_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_ that make up Earth and the processes that shape it.
* In 1666, \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_ (1638-87) noticed that shark’s teeth resembled mysterious stones called “tonguestones” that were found in local rocks.
* Steno’s explanation helped him develop ideas about \_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_ form.
* These ideas are used in a technique called \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_.
* Relative dating is a way to put events in the \_\_\_\_\_\_\_\_\_\_\_ in which they \_\_\_\_\_\_\_\_\_\_\_\_.
* The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_ of each layer of a rock formation can be determined by applying Steno’s idea called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***.***
* A stack of newspapers illustrates superposition.
* ***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** means that the \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_ of rock are \_\_\_\_\_\_\_\_\_\_ than the layers on the top.
* ***\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** states that \_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_ fall to the bottom of a basin, such as a riverbed, in response to gravity and result in *horizontal* layers.
* ***\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_*** is the idea that layers of sediment \_\_\_\_\_\_\_\_\_\_\_\_ in \_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_ when they form and before they become rock layers.
* The idea of \_\_\_\_\_\_\_\_\_\_\_ **\_\_\_\_\_\_\_\_\_\_\_\_\_\_** states that layers of rock are continuous \_\_\_\_\_\_\_\_\_\_\_ a geologic event like a river \_\_\_\_\_\_\_\_\_\_\_\_\_\_ the layers or an earthquake them.
* Another important idea, developed by Scottish geologist James Hutton (1726-97), is that the **"\_\_\_\_\_\_\_\_\_\_\_\_\_\_ *\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_*."**
* The idea of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ states that a vein of rock is \_\_\_\_\_\_\_\_\_\_ than the rock that surrounds a vein.
*  
* Sometimes rock pieces called \_\_\_\_\_\_\_\_\_\_\_\_\_\_are contained in another rock.
* During the formation of a rock with inclusions, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_ surrounded the inclusion and then solidified.
* So, the inclusions are \_\_\_\_\_\_\_\_\_\_ than the surrounding rock.
* Over geologic history, many animals and plants have lived and become \_\_\_\_\_\_\_\_\_\_**.**
* Their remains have become \_\_\_\_\_\_\_\_\_\_\_.
* The idea of \_\_\_\_\_\_\_\_\_\_\_\_\_ **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** states that \_\_\_\_\_\_\_\_\_\_ can be used to identify the relative age of layers of a rock formation.
* **William Thompson Kelvin (1824-1907), who also proposed the absolute temperature scale that came to be named after him, meticulously calculated Earth’s age at 10 million and 100 million years. His calculation was \_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_ because he did not realize that Earth has \_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_ from the core and radioactive decay.**
* **Earth’s age was estimated by measuring the \_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_ of uranium to lead.**
* **With improved techniques and evidence from tree rings and glaciers, the age of Earth is estimated to be about \_\_\_\_\_\_\_****\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_.**

**The Layers of the Earth**

* Earth’s surface is covered with a \_\_\_\_\_\_\_\_\_\_\_crust.
* There are two kinds of crust:
	+ \_\_\_\_\_\_\_\_\_\_\_\_\_\_
	+ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_





**Convection inside Earth**

* The rocky material of the \_\_\_\_\_\_\_\_ moves in very slow \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_.
* This movement is related to \_\_\_\_\_\_\_\_\_\_\_ & \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_ in the mantle.
* Hot material is \_\_\_\_\_\_\_\_\_ dense and \_\_\_\_\_\_\_\_\_\_.
* Cold material is \_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_.

 