Space Theories Notes!

* Theory
  + A theory is an idea used to explain a situation or justify an outcome.
  + Theories are \_ideas\_\_ that are backed up by facts
  + Scientists usually \_agree\_\_\_ upon \_\_\_theories\_\_\_
  + Theories \_\_\_\_can\_\_\_\_ change.
* Current Theory
  + Scientists currently believe that our universe is approximately \_\_10\_ to\_15\_ billion years old.
  + There have been many \_\_theories\_ over the years to explain the formation of the universe.
  + Scientists currently use the \_\_Big Bang\_\_\_ Theory to explain   
      
    the formation of the universe.
  + The largest piece of evidence that supports the Big Bang Theory is the observation that most galaxies are moving away from eachother.
* Geocentric Model  
  + Ptolemy’s theory is known as the \_\_geocentric model\_\_\_\_\_
  + He believed that the \_\_\_\_Earth\_\_\_ was at the center of the universe
  + “Geo” means \_\_\_Earth\_\_\_
  + “Centric” means center
  + Evidence for the geocentric model  
    - Gravity pulls all items towards the center\_\_\_\_\_   
        
      of \_\_\_\_Earth\_\_.
    - Therefore the \_\_\_Earth\_\_ must be the \_\_\_center\_\_
    - When objects were \_\_\_\_thrown\_\_\_\_ in the air they   
        
      landed in the \_\_same place\_\_\_.  
      * If Earth was moving the object would fall in a different place.
* Heliocentric Model
  + Copernicus’ theory is known as the \_\_\_Heliocentric theory\_\_  
    - He believed that the \_\_\_\_sun\_\_\_\_ was a the \_\_\_\_center\_\_\_\_   
        
      of the \_\_solar system \_\_\_\_
  + “Helio” means \_\_\_Sun\_\_\_
  + “Centric” means \_\_\_center\_\_\_\_\_
  + Evidence for the heliocentric model  
    - \_\_\_\_Galileo\_\_\_ made observations using \_\_telescopes\_\_\_  
      to support Copernicus’ theory.
    - Galileo observed Venus had \_\_\_\_\_phases\_\_\_\_\_ like the moon.
    - This can only be explained if Venus is also orbiting the sun.