Space Notes 1

1. **\_\_\_\_\_\_\_\_\_\_\_\_\_ is just a theory.**
   1. A **theory** is an explanation or model based on observation, experimentation, and reasoning.
   2. The \_\_\_\_\_\_\_\_\_\_\_ that attracts objects with \_\_\_\_\_\_\_\_\_\_\_ to one another.
   3. The larger an object's \_\_\_\_\_\_\_\_\_\_, the \_\_\_\_\_\_\_\_\_\_\_\_\_\_ its gravitational pull is.
   4. If \_\_\_\_\_\_\_\_\_\_\_ attracts objects to each other, then why doesn’t the Earth crash into the Sun??
      1. Because the Earth is in a \_\_\_\_\_\_\_ dimensional system and has a \_\_\_\_\_\_\_\_\_\_\_ orbit!
2. **Our size in the Universe**
   1. The red hypergiant star, VY Canis Majoris, is 2,800,000,000 km across!
      1. How many years would it take an airplane to circle around it?
         1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. **The Universe**
   1. Is ever- \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   2. Is there an end to this? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. The \_\_\_\_\_\_\_\_\_\_\_\_\_ contains all of \_\_\_\_\_\_\_\_ time and \_\_\_\_\_\_\_\_\_\_\_\_\_ that exists.
2. **The Beginning of the Universe**
   1. There are \_\_\_\_\_\_\_\_\_ theories of how our universe started:
      1. **The Big \_\_\_\_\_\_\_\_ theory**
         1. The Universe used to be empty and had nothing in it, until about \_\_\_\_\_\_\_\_ Billion years ago when a giant explosion sent material everywhere in space.
         2. The Universe is still \_\_\_\_\_\_\_\_\_\_\_\_\_\_, and will continue to do so.
      2. **Creation, or the \_\_\_\_\_\_\_\_ Earth Theory.**
         1. This theory is mostly supported by \_\_\_\_\_\_\_\_\_\_\_\_.
3. **Our Galaxy**
   1. Our Galaxy is called the \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_.
      1. It has a \_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_.
      2. The center is a super-massive \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_.
         1. A black hole is a place in space where gravity pulls so much that even light can not get out. The gravity is so strong because matter has been squeezed into a tiny space. This can happen when a star is dying.
      3. It has hundreds of billions of \_\_\_\_\_\_\_\_\_\_\_, and billions of \_\_\_\_\_\_\_\_\_\_\_.
4. **Our Solar System**
   1. Contains the \_\_\_\_\_\_\_\_\_\_\_ and 8 \_\_\_\_\_\_\_\_\_\_\_.
5. Our solar system is part of the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. Our solar system also contains:



   4. 1. Later, we will talk more about these.

**Answer the reflection question here:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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