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 \_\_\_\_\_\_\_\_\_\_\_.
		1.
		2.
		3.
		4.
		5.
		6.
		7.
		8.
5. Our solar system is part of the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. Our solar system also contains:
	1.
	2.
	3.
	4. 1. Later, we will talk more about these.

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

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**