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**The Origin of the Universe: The Big Bang Theory**

* “***Time zero***” → \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ years ago
* all matter was compacted into a teeny tiny little \_\_\_\_\_\_
* little ball was extremely \_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_ and under enormous \_\_\_\_\_\_\_\_\_\_\_\_\_
* small, dense ball \_\_\_\_\_\_\_\_\_\_\_\_\_ hurling matter and energy in all directions

***Support:***

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (the heart or “glow” left over from the explosion)
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**An Expanding Universe**

* As a balloon expands, so does the universe!
* How do we know??
* Galaxies produce a stream of \_\_\_\_\_\_\_\_\_\_ just as stars do. Yet when we observe different galaxies, the spectrum is not the same as we would expect.
* As the galaxy moves \_\_\_\_\_, the wavelength of light gets \_\_\_\_\_\_\_\_\_\_\_ and shift to the \_\_\_\_\_\_ end of the visible spectrum. This is called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.



It means that all galaxies are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ from us. If fact, the farthest galaxies are moving away the \_\_\_\_\_\_\_\_\_\_\_\_. This means the whole universe is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, just like the dots on the balloon

* Supports the \_\_\_\_\_\_\_\_\_\_\_\_\_ theory of universe formation
* Will it continue to expand? Or will it stop and contract to a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_??



**The Origin of the solar System: The Nebula Theory**

* Formed from a \_\_\_\_\_\_\_\_\_\_\_\_\_ (an enormous cloud of dust and gas)
* The \_\_\_\_\_\_ like all \_\_\_\_\_\_\_\_\_\_ was formed from a nebula
	1. \_\_\_\_\_\_\_\_\_ causes the matter of the nebula to \_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_
	2. The contracting nebula begins to \_\_\_\_\_\_\_\_\_\_\_ into a spinning pancake shape with a bulge at the center. This bulge became the \_\_\_\_\_\_\_\_.
	3. Some of the cooler material also clumped together because of gravity to form the \_\_\_\_\_\_\_\_\_\_\_\_\_\_.