**The Origin of Life**

* **Remember: The Origin Of The Earth**

~\_\_\_\_\_\_\_\_\_\_\_\_\_ years ago the earth was formed

~\_\_\_\_\_\_\_\_\_\_\_\_\_ billion years ago first organisms appeared (blue-green algae – aka cyanobacteria)

* + \_\_\_\_\_\_\_\_\_\_\_\_ is produced and begins to accumulate in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* **Theories on the Origin of Life**

**1.**

**2.**

**3.**

**4.**

**5.**

**SPONTANEOUS GENERATION**

* + Organisms arose spontaneously from \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
		- Example: \_\_\_\_\_\_\_\_\_\_\_\_\_ arose from rotting meat
	+ Disproved in 1668 by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, an Italian physician
* **Redi’s Experiment**

*Draw a picture here*↓

* Redi’s experiments led to a new theory!

**BIOGENESIS**

* Living organisms can only come from \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* **Louis “Got Milk?” Pasteur -1864**
* His experiment showed that life did not appear \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .
	+ Meat broth was \_\_\_\_\_\_\_\_\_\_\_\_\_ in a flask to kill microorganisms
	+ The neck of the flask was heated and bent into the shape of an \_\_\_\_\_\_
	+ Microorganisms could not get into broth because they would settle in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ before contact with broth
	+ No \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ was in discovered in the broth
	+ Broth was tilted into the S component and microorganisms contaminated broth and grew

**Pasteur’s Experiment** *draw a picture here*↓

**DIVINE ORIGINS**

1.

2.

3.

\*\*Each has their own belief of where life came from.

**METEORITE THEORY**

* Life came from space on \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* There is some evidence!
* Life came from space on \_\_\_\_\_\_\_\_\_\_\_\_
* September 28, 1969 Australia
	+ Meteorite shower fell
	+ Analysis determined the meteors were \_\_\_\_\_\_\_ rich and contained:
		- Many \_\_\_\_\_\_\_\_\_\_\_\_\_ compounds
		- Many of the \_\_\_\_\_\_\_\_\_\_ acids found in biological systems

**PRIMORDIAL SOUP**

* There was just the right mixture of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ on Earth, and life just appeared. Right \_\_\_\_\_\_\_\_\_\_\_\_\_, right ­­­­­­­­­­­­­­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_!
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and Dr. Harold Urey-1953
	+ - \_\_\_\_\_\_\_\_\_\_\_\_ (NH3)
		- \_\_\_\_\_\_\_\_\_\_\_\_ (CH4)
		- \_\_\_\_\_\_\_\_\_\_\_\_ (H2O)
		- \_\_\_\_\_\_\_\_\_\_\_\_ (H2)
	+ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_was passed through the apparatus
	+ Amino Acids, sugars, and other organic molecules were synthesized. The \_\_\_\_\_\_\_\_\_\_ of life!

**Miller and Urey’s Experiment** Draw a picture here↓