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| <p>Energy is created in the initial Big Bang explosion.</p> | <p>In the time before the first 10^{-44} seconds of the Universe, the laws of physics as we know them did not exist.</p> |
| <p>As the universe cooled, matter and anti-matter were created.</p> | <p>Matter and anti-matter collided and annihilated.</p> |
| <p>There was a little more matter than anti-matter so after annihilations, the Universe was composed mostly of matter, but the matter was still too hot to clump.</p> | <p>Quarks and electrons existed in a plasma but it was too hot for quarks to clump.</p> |
| <p>The Universe cooled enough that quarks could stick together to form protons and neutrons.</p> | <p>The Universe contained lots of protons, neutrons and electrons moving fast and colliding.</p> |
| <p>Universe cooled enough that protons and neutrons could stick together to form nuclei (nucleosynthesis).</p> | <p>A neutron and a proton could collide to form deuterium nuclei, an isotope of hydrogen.</p> |
| <p>Two deuterium nuclei could combine to form helium nuclei.</p> | <p>Helium nuclei could combine with a proton to form Lithium. But this phase did not last long!</p> |

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| <p>The Universe cooled enough that nucleosynthesis stopped (not enough energy to ram protons and neutrons together).</p> | <p>After primordial nucleosynthesis ended, the universe was ~75% hydrogen, ~24% helium and <1% Li.</p> |
| <p>H, He and Li nuclei existed but it was still too hot for the nuclei to latch onto electrons (the electrons had too much energy).</p> | <p>Universe cooled enough that nuclei could hold onto electrons and neutral atoms formed.</p> |
| <p>When neutral atoms formed, energy (the cosmic microwave background radiation) was released.</p> | <p>Gravity helped gasses combine into clouds.</p> |
| <p>Stars and galaxies formed.</p> | <p>Stellar nucleosynthesis occurred in the core of stars and was responsible for the creation of elements up to lead.</p> |
| <p>Stars explode, dispersing heavier elements out into universe.</p> | <p>Elements from supernova explosions form second generation stars and planets.</p> |