Big Bang

[Diagram showing the timeline and stages of the Big Bang, from the initial expansion to the formation of stars and galaxies.]
**The Big Bang Theory**

1. The cosmos goes through a superdense "collision," expanding from the size of an atom to that of a grapefruit in a tiny fraction of a second.

2. Post-collapse recombination occurs in a gaseous, hot, avid universe, containing temperatures of thousands of degrees Celsius.

3. A rapidly cooling down universe permits gravity to form protons and neutrons.

4. Matter in the universe is a collection of hydrogen and helium atoms, mostly in the form of light from galaxies, clusters of stars, and dark matter.

5. Stars form from the collapse of clouds of gas, leading to the formation of new stars and planets.

6. Gravity makes matter clumps together under the force of the first stars die and spawn heavy elements into space, these will eventually turn into new stars and planets.

**Big Bang Timeline**

- **Big Bang:** 15 billion years ago
- **Stars:** 10 billion years ago
- **Sun:** 5 billion years ago
- **Molten Earth:** 4.5 billion years ago
- **First Oceans:** 3.8 billion years ago

**Evolutionary Timeline**

- **Formation of Earth:** 4.55 billion years ago
- **Earliest Life:** 3.5 billion years ago
- **First Cells:** 2.5 billion years ago
- **First Animals:** 500 million years ago
- **First Dinosaurs:** 225 million years ago
- **First Humans:** 5 million years ago

**Oldest Zircon Crystal:** 4.4 billion years old
<table>
<thead>
<tr>
<th>Big Bang</th>
<th>Stars</th>
<th>Sun</th>
<th>Molten Earth</th>
<th>First Oceans</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 Billion years ago</td>
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<td>5 Billion years ago</td>
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<tr>
<td>Water covered Earth</td>
<td>Dry land and plants</td>
<td>Sun, moon, and stars</td>
<td>Sea and flying creatures</td>
<td>Land animals and Man</td>
</tr>
<tr>
<td>Day 1-2</td>
<td>Day 3</td>
<td>Day 4</td>
<td>Day 5</td>
<td>Day 6</td>
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