

# EARLY EARTH HISTORY PAMPHLET NOTES

## Earth's Early Conditions

- Earth was inhospitable (not suitable for life)
- Very hot
- Lots of volcanic eruptions (flowing lava)
- Lots of UV (ultraviolet) radiation
- No ozone (O<sub>3</sub>) layer to protect from above
- No atmosphere
- No O<sub>2</sub> (atmospheric oxygen)
- No H<sub>2</sub>O (water)
- No life
- Volcanic gasses released were:
  - H<sub>2</sub> → hydrogen
  - N<sub>2</sub> → nitrogen
  - NH<sub>3</sub> → ammonia
  - CH<sub>4</sub> → methane
  - CO → carbon monoxide
  - CO<sub>2</sub> → carbon dioxide

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## Changes in Earth's History

- Earth's atmosphere formed from volcanic gasses
- H<sub>2</sub>O vapor condensed into rain (torrential downpours)
- Earth's basins filled up with water (oceans, rivers, etc.)
- Weather and climate began
- Erosion and weathering changed rock into soil
- Earthquakes and volcanoes changed Earth's surface
- Mountain building
- Earth cooled down
- Ice Ages occurred

## **EARLY EARTH HISTORY PAMPHLET**

### **Earth's Present Conditions**

- Atmosphere of N<sub>2</sub> (78%), O<sub>2</sub> (20%)
- Only a few volcanoes but many earthquakes
- Weather / climactic conditions vary around the Earth
- Lots of life forms (biodiversity)
- Human civilization and technology dominant
- Heavy use of fossil fuels (coal, oil, gas, etc.)
- Global warming due to greenhouse gasses (CO<sub>2</sub>, CH<sub>4</sub>)
- Glaciers melting / sea levels rising
- Earth surface 70% water; 30% land