**Earth and Moon Origins – Assignment – 2 Page Worksheet**

**How was Earth formed**

1. Write a claim or statement below that answers the question. You do not need to include evidence in this part of the response.

In the beginning, different particles close together started to collide and combine until it was the size of a planet. All of the impacts raised earths temperature, melting metal and rock. Gravity pulled denser materials into the center.

1. List the scientific evidence that supports your claim.

Our understanding of the laws of physics can be applied to the solar systems to better derive how these things may have happened. We can also use radioactive decay to help create a time period for earth. Radioactive decay is constant and can be measured to get an understanding off how long ago something happened.

1. Explain your reasoning for the claim. Describe why and how the evidence supports your claim.

The claim is supported by the application of Physics. The process of collision, heat generation, and gravitational intervention are plausible but also observable in other celestial bodies. Radiometric dating also provides quantitative data and reinforces the claim with measurable data.

**How was Earth’s Moon formed**

1. Write a claim or statement below that answers the question. You do not need to include evidence in this part of the response.

When the earth was still forming, a smaller celestial body named theia had collided with earth. The collision created lots of heat and melted theia. Most of the materials from Theia had stayed with earth, but some of it got thrown into orbit around earth where the materials cooled.

1. List the scientific evidence that supports your claim.

Astronauts from the Apollo mission were able to bring back rocks from the moon. Upon testing the rocks they found that the rock and soil samples are similar to that of earth. Earths spin is also faster than what it should me, this can be accounted for by the extra energy from the impact.

1. Explain your reasoning for the claim. Describe why and how the evidence supports your claim.

The claim is supported by the lab tests on soil and rocks because it directly shows common connection with earth, and suggests that the moon was formed from a collision with theia. Also, the extra fast spin the earth has can be explained by the immense energy released from the collision with Theia.