**LAB ACTIVITY**

***Title: Simulating Meteoroid Impacts Creating Lunar Craters***

Name: Class: Date:

**Introduction to Lunar Craters**

Impact craters are some of the most dramatic features that can be seen on the moon. Formed when meteorites, asteroids, and comets struck its surface at speeds of 10-20 kilometers per second, craters record the moon’s 4.5 billion-year history. Cameras aboard the lunar probes allow scientists to study lunar craters and determine important physical details of their formation.

**Materials**

1. Powder sugar Simulates: Moon’s crust
2. Hot chocolate mix Simulates: Top soil
3. Malt balls/Milk Duds Simulates: Meteoroids
4. Metal pan
5. Sieve

**Procedure**

[**https://www.youtube.com/watch?v=E15APY-MFjI**](https://www.youtube.com/watch?v=E15APY-MFjI)

1. Fill pan with powder sugar at least 1 cm thick.
2. Use sieve to sprinkle shallow layer of hot chocolate mix evenly over powder sugar.
3. Throw malt balls into chocolate powder mix from different heights and different angles to simulate incoming meteoroids.
4. Carefully observe what is happening as the malt balls impact the mixture. Record at least three events happening.

**Data & Observations**

**Complete C-E-R**