**First 9 weeks Unit Overview**

**4th Grade – Force & Motion**

**Standards Addressed: 4P3.a, b, c, & d**

**Lesson Objectives**

**Engage and Explore**

Students will participate in 3 different activities to illustrate the effectiveness of wedges, inclined planes, and levers.

**Engage and Explore**

Students will participate in 3 different activities to illustrate the effectiveness of pulleys, screws, and wheels and axles.

**Explore and Explain**

Students will use toilet paper tube cannons to engage in a series of launching challenges where they can manipulate the initial force applied to a projectile, as well as its launch angle and observe the impact on different projectiles.

**Explain**

Students will use what they know about inclined planes to build an adjustable bocce ball ramp.

**Light & Sound**

**Standards Addressed: S4P1a, b, and S4P2a, b**

**Lesson Objectives**

**Engage and Explore**

Students test common objects to assess their transparency. Students will create secret messages using a red light filter.

**Engage and Explore**

Students will learn about how light reflects by tracking beams of light between mirrors.

**Engage and Explore**

Students will experiment with prisms and lenses to observe their effect on light.

**Engage and Explore**

Students will experiment with water glasses to understand concepts about