### Building a Projectile Launcher as a Home Assignment

## Dear Parents/Guardians:

As part of our study of projectile motion, students have been given a home assignment to build a simple projectile launcher. This launcher can be brought into class or out in the field for experiments or activities in efforts to provide hands-on study of this type of motion. In order to facilitate a safer working and learning experience, I am providing the following safety suggestions. I am also providing links to three videos on how to build various projectile launchers. Your student has been instructed to select one of these catapult or rocket launcher models to build. Please don't hesitate to contact me with questions about this assignment.

### Safety First!

- A parent/guardian is to work with the student for purchasing any materials or building any of the projectile launcher parts.
- There should be no need for hand or power tools for this assignment.
- In one case (catapult model #2), a glue gun may be used. Make sure proper precautions, including direct adult supervision, are taken to prevent burns from the hot glue gun.
- Never activate the launcher outside the classroom until the assignment is completed and a parent/guardian provides permission and supervision.
- Always wear eye protection like safety glasses or goggles in or outside of the classroom when working with the projectile launcher.
- Always make sure there are no people, pets, or fragile items in the projectile's path.
- Make sure no metal, glass, and other potentially hazardous items are used in building the launchers or the projectiles.

#### Choose one of the following models to build:

Simple Catapult

- 1. How to Make a Catapult for Kids www.youtube.com/watch?v=XchdUB-ZnKc
- 2. How to Make an Easy Catapult www.youtube.com/watch?v=BuNfdv0yFTg

# Simple Paper Rocket Launcher

3. How to Make a Paper Rocket Launcher with PVC www.youtube.com/watch?v=HOx1wpxVFvY