

# Missiles on a Mission!



**SCENARIO:** Submarines are used to launch missiles when needed to defend our country. Missiles can reach a target up to approximately 4600 miles.

**CHALLENGE:** Design, construct, and test a missile that is primarily powered by rocket propulsion.

**TIME ALLOWED FOR PREPARATION:** One class block

**MATERIALS:** Paper, plastic straws, rubber bands, paper clips, glue pen, 2 balloons, craft sticks, tape, graph paper, ruler

**EQUIPMENT:** Scissors are the only tool provided.

**DESIGN CRITERIA:** After launching, missiles have wings that will eject. Your design should resemble a missile with wings. Use the internet to research different missiles.

**TESTING:** A string will be attached to the ceiling. You must attach the missile to the string at waist level, stand behind the line and let go of it. It should travel up the string.

**EVALUATION:**

1. Sketch the final design either with Google SketchUp (or other 3-D design program) or using graph paper. Be sure to draw the design to scale.(1 per group)
2. Distance traveled! You may test your missile as many times as possible during the allotted time. The missile that travels the longest distance will be the winner! (group activity)
3. Group evaluation form (individually)
4. Reflective Writing assignment (individually)