



Challenger's Morning Science Segment:

November 9, 2015

Topic: Lift, Drag and Thrust

Build: Hoop Glider

Credit: <http://legacy.mos.org/discoverycenter/aotm/2013/02>

Materials Needed:

Straw / index card or stiff paper / paperclips or tape / ruler / scissors

Building a Hoop Glider: Cut two strips of paper from an index card or stiff card stock. You are encouraged to test different sizes of loops with one loop smaller than the other, but a good starting point is to make the smaller loop 1" wide x 5" long and the larger loop 1" x 10". Use a paper clip or tape to secure the ends of the paper to form the loops. Tape the loops to opposite ends of a straw, aligning them on the same side of the straw. You are ready for testing! Hold the hoop glider in the middle of the straw with the small hoop in front. Throw your hoop glider in a manner similar to throwing a spear.

The science [credit: <http://legacy.mos.org/discoverycenter/aotm/2013/02>] "**Lift**" is what helps your hoop glider stay up in the air. The curved surface of the hoop glider's loops creates a difference in pressure above and below the loops. The small loop in front helps steer the glider and the big hoop in back creates "**drag**." The drag is the air resistance that helps keep the glider level during flight. "**Thrust**" is the force you exert when you throw it."

This activity ties into the Challenger Learning Center of Maine: Challenger Vacation camps cover all kinds of fun sciences topics such as rockets, engineering and space science! Our December Vacation camp registration is open for Dec 28-31, 2015, for grades K-5. Sign up now to reserve your child's spot today for fun topics such as Soaring thru Space, Star Wars, LEGOs and more! FMI- www.astronaut.org