Hoop Gliders

Sections

Joey Scouts | **Cub Scouts** | **Scouts** | **Venturer Scouts** | Rover Scouts

Scouts VICTORIA

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Challenge Areas

COMMUNITY | CREATIVE | OUTDOOR | **PERSONAL GROWTH**

Scout Method Elements

COMMUNITY INVOLVEMENT | **LEARNING BY DOING** | NATURE AND THE OUTDOORS | PROMISE AND LAW | PERSONAL PROGRESSION | PATROL SYSTEM

SYMBOLIC FRAMEWORK | **YOUTH LEADING, ADULTS SUPPORTING**

SPICES Growth Areas

CHARACTER | EMOTIONAL | **INTELLECTUAL** | **PHYSICAL** | SOCIAL | SPIRITUAL

The Adventure

Take a break from the traditional paper airplane and make a straw fly and learn about aerodynamics.

Plan

1. Investigate the science behind flight and aerodynamics. What factors impact a planes ability to fly well? There are many resources available but this can be a good starting point.
2. Investigate the traditional paper airplane and how it fits the principles you found out about flight.
3. Read the safety information and discuss with your leaders or another appropriate adult what safety equipment, precautions, and supervision may be required. Ensure that you have these safety measures in place before starting the 'Do' section.
4. Gather all the equipment that you need to make your hoop glider. You will need the following equipment: thick paper, a ruler, scissors, a drinking straw, and tape.

Do

1. Cut three strips of paper that are 13 cm by 2.5 cm long out of the paper.
2. Take two of the strips and stick them together on one of the short sides so that you have one strip of paper that is 26 cm long by 2.5 cm and one the is 13 cm by 2.5 cm. Some overlap on the strips is good to provide stability.
3. Curl the shorter strip into a hoop and tape the ends together.
4. Repeat to make a hoop with the longer strip of paper.
5. Tape one hoop to each end of the straw, making sure that the straw is on the inside of the hoops and is lined up.
6. Hold the hoop glider in the middle of the straw with the little hoop in the front and throw.
7. Measure how far your glider flew and see who can throw their glider the furthest.

Review

1. Was your glider successful? If not, what do you think went wrong?
2. What could you do differently to improve your glider? Does the placement of the hoops or the length of the straw affect the flight?
3. What did you enjoy most about making your hoop glider? What did you learn?

Safety

• Sharps risk: This activity uses scissors which could cause cuts. Care should be taken when using and younger sections should have adult supervision.
• Paper cuts can be very painful. Be careful when handling paper.

Variations

• For younger sections, it may be helpful to pre-cut the strips or use a Hoop Glider Template.
• Have a paper air vehicle competition to see who can make the best aircraft.
• Decorate your hoop glider and investigate what decorations make differences to the flight.