

## Pictou County Forest School - Grade 6 Post-Visit Lesson Plans

### Physical Science: Flight

**Activity:** Paper Airplanes

**Overall Curriculum Outcome:** Learners will evaluate factors that influence flight.

**Specific Curriculum connections:**

Characteristics of flight for living and nonliving things

- How do flying living things compare with flying non-living things?
- How can the principles of flight be demonstrated/seen?

Forces involved in flight

- How are forces balanced in a flying object?
- How is floating different from flying?

Flying devices

- How can I test a flying device?
- How can I improve the performance of a flying device?

**Materials:**

- Various types and gauges of paper
- [https://chandra.si.edu/make/images/paper\\_airplanes.pdf](https://chandra.si.edu/make/images/paper_airplanes.pdf)

**Intro/Activation:**

- Access students' prior knowledge of relevant concepts:
  - Flight vs. floating
  - Role of wings; how does a glider work?
  - Thrust, drag, lift, gravity
  - Materials used

**Activity:**

Investigation Phase:

- Provide each student with a standard piece of paper. Give students time to experiment with different designs and strategies. Providing the same size of paper serves as a control by which educators and students can compare and contrast their designs and throwing techniques.

Research Phase:

- Give students time to conduct research on various designs regarding size, wing shape, angle of release etc.

Experimentation Phase:

- Students are now open to experiment with different materials, size of airplanes, throwing techniques.

Air Show Throw Down!!

- Students take their finished airplanes and have three throws to see how far their airplanes can fly. Record results.