Learning Activity: Force on a Wing

References:

Explore Learning. Force on a Wing. Retrieved Oct. 3, 2012, from <http://www.explorelearning.com/index.cfm?method=cResource.dspView&ResourceID=24>

Grade Level: 6

Subject: Science

## Brief Description of Activity:

Students will go to a website, which will allow them to interact with a wind tunnel to explore the relationship between attack angle of a wing to drag and lift forces. Students will visit this website: <http://www.explorelearning.com/index.cfm?method=cResource.dspView&ResourceID=24>. When students are complete, they can proceed to preparation for the next lesson by looking into parachute designs.

## General Learning Outcome:

* Construct devices that move through air, and identify adaptations for controlling flight.

## Specific Learner Outcome:

* Students apply their knowledge of aerodynamics to design

## ICT Outcomes:

C.1.2.1 access and retrieve appropriate information from the Internet by using a specific search path or from given uniform resource locations

C.6.1.2 use technology to organize and display data in a problem-solving context

C.7.2.1 use a variety of technologies to organize and synthesize researched information

P.5.1.2 access hyperlinked sites on an intranet or the Internet

## Rationale for Computer Integration:

Through the interactive simulator, students will see the effects of increasing or decreasing the wing attack angle, and will report the angle with maximum lift, as well as maximum drag to the class site.

# Appendix A

## Search strategies

1. Navigate to <http://google.ca>
2. Select “Advanced Search” from gear menu.
3. Search “Force on a Wing” as an exact phrase, selecting “in the title of the page” from ‘Terms Appearing’ field.
4. First link should be the intro page to the lesson activity/simulator.

The outcomes and resource ideas for this were based on the Programs of Study for Grade 6 science, found at <http://learnalberta.ca>