

Created by:



AlbertaSat

**An Educational Outreach
Program for Grades 1-12**



LIFT OFF ALBERTA

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Our Program

Division 1 (Grades 1-3)

Our lessons in this section focus on the basics of CubeSatellites and our first satellite, the Experimental Albertan-1. In this section of our program students will learn about space science, CubeSatellites, the northern lights, and demonstrate their understanding through the creation of images and blueprints.

Division 2 (Grades 4-6)

Our division 2 section compliments and builds upon the study of CubeSatellites. This section also discusses binary code and introduces mathematics into our STEM program. Students will complete a basic design of their own CubeSatellite through the use of 3D-modelling and explore one method for downloading data from satellites through the use of binary code.

Division 3 (Grades 7-9)

Our secondary section places a focus on kinetic learning, building, and designing. Students will learn about solar energy and the conversion of energy into electricity by building a simple solar circuit. In addition, students will begin to understand momentum when they design and build a miniature car.

Division 4 (Grades 10-12)

Like our sessions for division 3, a focus is placed on kinetic learning, building, and designing. Working in groups, students will design an apparatus to carry a payload a set distance. Students will also engineer a bottle rocket and consider momentum, pressure, and velocity to reach a target. These sessions focus on understanding variables and forces at play in order to reach a specified goal.