A Journey to the Edge of Space

Grade 8-12

August 1 – 5

9 am to 3 pm

In this exciting camp, students will have the opportunity to help plan the launch of a high altitude weather balloon and its payload, gathering experimental data about the atmosphere during the voyage. Using computer controlled video cameras in the balloon payload, students will record the ascent of the balloon, showing the payload go above any cloud deck. The cameras will record the roar of the wind as the payload passes through the jet stream. At 20 miles high, the balloon will be above most of the earth's atmosphere and flying in a near vacuum, the temperature outside will be 60 degrees below zero, and the camera will show the curvature of the earth. Finally the balloon will explode, releasing a parachute that will slow the descent of the payload and its valuable data. Students' mission then will be to recover the balloon and payload, using a GPS receiver connected to HAM radio equipment.

Monday	RECEIVE ORIENTATION TO THE PROJECT FORM TEAMS LEARN ABOUT THE PROPERTIES OF THE EARTH'S ATMOSPHERE
Tuesday	BRAINSTORM AND DESIGN BALLOON PAYLOAD LEARN ABOUT TRACKING THE BALLOON
Wednesday	WORK ON PAYLOAD EXPERIMENTS DEVELOP LAUNCH DAY WORK PLAN
Thursday	FINISH AND TEST PAYLOAD EXPERIMENTS REVIEW WEATHER OUTLOOK FOR LAUNCH DAY REHEARSE LAUNCH DAY WORK PLAN RETURN TO KOPERNIK IN THE EVENING FOR OVERNIGHT
Friday	EXECUTE LAUNCH DAY WORK PLAN SEND OUT TRACKING TEAM TO RECOVER PAYLOAD RETURN TO KOPERNIK AND EXAMINE PAYLOAD VIDEO