THE AEROSPACE CLUB

We aim to make science and engineering exciting and accessible for students whose talents and interests thrive outside the traditional classroom.

The Aerospace Club is an afterschool program offered by Lightning Atlas. The mission of Lightning Atlas is to bring STEM subjects to life using interactive media.

This program is designed to engage students using the video game "Kerbal Space Program" a physics simulation of a scale model of our solar system.

While playing this game, students will discover the laws of physics that govern our universe, and how to harness that knowledge to fly to the moon.

The club can be scheduled for late September/early October, one day per week, for 8 weeks. Ben Roberts, a science and technology communicator will facilitate this program providing all the needed computer hardware and software.

The school will need to provide a classroom for 6-12 students with desks for 6 PC displays, along with 12 power outlets. A projector and screen are helpful, but not required.

Do you want to learn more?
Contact Ben Roberts at
BenRoberts@lightning-atlas.org

Lightning Atlas is a 501(c)(3) organizati

Curriculum

Week One - Introduction

Game fundamentals, and introducing concepts such as acceleration, force, and trajectory.

Missions Simulated: V2 and Freedom 7.

Week Two - Immersion

Beginning of the simple orbital mechanics model, with more advanced ideas such as navigation, maneuvers, and relativity.

Missions Simulated: Friendship 7 and Gemini VIII.

Week Three - Advancement

Continuing on to more advanced orbital principals, which include spheres of influence and how to define an orbit.

Mission Simulated: Apollo 8

Weeks Four Through Seven - Assemble

Using previously learned information, students will demonstrate comprehension by successfully piloting a landing on a moon.

Mission Simulated: Apollo 11

Week Eight - Conclusion

A recap of all that was learned, and applications for the lessons in the real world.

Mission Simulated: Freeform