

C.O.R.E. @ The Camptonville Academy

Proudly Introduces



2015-2016

7th & 8th Grade Program

Personalizing Learning for Student Success!



CORE Charter School is pleased to offer the Aerospace STEM program beginning in 2015 - 2016 school year for 7th & 8th grade students. The academy will provide core academic instruction with an integrated aerospace STEM (science, technology, engineering, and mathematics) emphasis.

This unique college-preparatory program will incorporate project based and experiential learning and is developed in partnership with the Northern California Aerospace Initiative.

Structure

Classes will meet Monday and Wednesday from 9:00 a.m. to 3:30 p.m., and on Thursday from 9:00 a.m. to 12:00 p.m. The following courses will be included:

- Math with STEM applications
- Science with aeronautical and engineering applications
- Integrated English Language Arts & Social Studies
- Introduction to Aerospace
- Model Aeronautics & UAVs

MONDAY & WEDNESDAY

9:00 - 12:00	ACADEMICS
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12:00 - 12:30	BREAK
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12:30 - 3:30	AERONAUTICS
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THURSDAY

9:00 - 12:00	ACADEMICS
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Parent Involvement

CORE Charter School is a homeschool/independent study program. Though students will meet for small class instruction, the majority of coursework will be completed at home. Parents/guardians must supervise and direct the program during school hours. Monthly parent meetings will be scheduled to coordinate the classroom instruction with the home program.

Course Descriptions

Math:

Students will be approaching mathematics through a variety of group discussions and activities. With guided instruction, they will have the opportunity to think of ways to solve math problems, on their own, which will lead to the discovery of theorems and formulas. We will use TPS curriculum with STEM applications. This curriculum was developed by Illinois State University and is meant to give students a real life application using science, technology, engineering, and mathematics.

Science:

Students will learn science through direct instruction, group collaboration, projects, field trips, Internet presentations and hands-on lab activities. Group discussions will add a live dynamic to all learning. Many concepts may relate directly to and be designed with aeronautic lessons. In accordance with California State Science Standards, 7th grade will focus on Life science and 8th grade will focus on Physical Science. State adopted curriculum will serve as a foundation to instruction.

ELA and Social Studies components:

Students will undertake a rigorous combined English Language Arts and Social Studies course of study covering both 7th and 8th grade ELA Common Core Standards.

They will learn to read and respond to current and relevant aviation-related, grade-level expository text. For example students may read an adapted article written by the Associated Press for the New York Times about the

growing number of UAVs that are piloted remotely. Using critical thinking skills, they will add their own thoughts to the conversation through teacher-guided discussions, thinking and writing process.

In addition students will read biographies and essays of contributors to early flight discovery and design. From a successive timeline they will connect period history, significant events, and geography to persons of aviation interest. Study and discussion will revolve around aeronautical inventions as it relates to the development of science from the Middle Ages to the Renaissance and Enlightenment periods.

Introduction to Aerospace:

This course is designed to provide students with a comprehensive overview and history of aviation, beginning with Leonardo da Vinci's manuscript detailing his concept of flight (1488) to modern day space travel. It will provide a detailed history of the evolution of flying craft from the first hot air balloons to gliders, propeller aircraft, jet aircraft and rocket-powered craft. The course will provide a foundation for transition to Guided Flight Discovery, Private Pilot, which provides the aeronautical knowledge necessary to become a Federal Aviation Administration certificated private pilot.

Model Aeronautics & UAVs:

This course will introduce students to the basics of aerodynamics and model aircraft systems. Students will design, build, and fly models. Hands-on demonstrations and computer simulations will be used to develop a foundation needed for safe application of the model sub-systems. Hands-on activities will include programming, mission, and flight of UAVs.



Lakeside Resource Center: (530) 742-2786
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www.coretca.org