

GAIN REAL-WORLD SKILLS AND EXPLORE CAREERS

Learn about materials science and a variety of other skills while gaining valuable experience through Core Plus Aerospace.

Core Plus Aerospace students build skills that can apply to a variety of career paths, related to materials science. Students learn how to classify matter, investigate the structure and properties of crystals, define the physical and mechanical properties of materials, and understand composite materials and composite manufacturing techniques.

WITH YOUR SKILLS ANY PATHWAY IS POSSIBLE

1

Future Opportunities:

- Certificate and degree programs
- Earn and learn programs
- A job in manufacturing

2

What kind of credits can you earn?

Depending on your district, you can earn math, science, English, Career and Technical Education (CTE), and elective credits.

Pay Scale:

Average annual salary for manufacturing employees in Washington: \$88,000

Skills you will learn:



SAFETY



MATH



**TECHNICAL
SKILLS**



More Info:

www.coreplusaerospace.org

Developed by industry, the Core Plus Aerospace curriculum includes 1,080 hours of instruction and hands-on learning opportunities that prepare Washington high school students for aligned post-high school training and college programs, apprenticeships, and manufacturing careers. Core Plus Aerospace students graduate with options.

Students begin by defining materials science, then classifying matter and types of structures, bonding, and properties. Students investigate the atomic structure and properties of crystals, define the properties of materials, and learn how to select materials suitable for creating an object based on their physical and chemical characteristics. In addition, Core Plus Aerospace students build the knowledge and skills necessary to understand the components of composites, mechanical advantages of composites, basic composites vocabulary, and types of composite manufacturing techniques. Throughout the unit, students learn the process of recording and interpreting their observations.

DEVELOPING REAL-WORLD SKILLS

Among many skills, students learn to:

- Characterize materials based on chemical bonding and crystal structure.
- List several common materials used in the design and construction of structures.
- Define simple properties of materials, such as strength, flexibility, and transparency.
- Select suitable materials for making an object based on their properties.
- Demonstrate basic fabrication techniques and safe practices.

CONNECTING TO WASHINGTON STATE LEARNING STANDARDS

Among many standards covered, Core Plus Aerospace students learn to:

- Understand the classification and properties of materials used in manufacturing.
- Communicate the relationship between energy and forces.
- Experiment with material reactions.
- Develop skills to use information technologies and instrumentation.
- Analyze the structure and function of materials for design implementation.

EXPLORE MORE

Learn more about the curriculum and hear from Core Plus Aerospace teachers, students, and graduates employed in industry and attending college programs across Washington state.



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