

INTRO TO CONCRETE MASONRY

INDUSTRY SECTOR | Building Trades and Construction

PATHWAY | Residential and Commercial Construction

COURSE ESSENTIAL QUESTION:

COURSE OVERVIEW:

This basic certificate program in Concrete Masonry includes orientation to the cement masonry trade, industry terminology and blueprint reading. Hands-on training includes the proper use and maintenance of tools and instruction in job safety procedures. Students will learn the basic ingredients of concrete, rodding placement and floating, basic set-up and form work, and clean-up. Integrated throughout the course are Common Core State Standards and Career Technical Education Standards, which include safety, communication, technology, ethics, career planning and other employability skills.

INFORMATION:

- A. **Pre-requisite:** 16 years old or a 11th/12th grader
- B. **Abilities Required:** [Click here to enter text.](#)
- C. **Dress Requirement and Grooming:** Must dress code/Industry Standards
- D. **Students must master 75% of the certificate competencies to receive a certificate.**
- E. **Fee:** None
- F. **Course Length:** 180 hours
- G. **Textbook:** None
- H. **UC a-g Approved:** No
- I. **Industry Certification:** No
- J. **Sequencing to Include a Capstone:** Yes
- K. **Community College Articulation:** No
- L. **Common Core Alignment:** Yes
- M. **Community Classroom:** No
- N. **Career Technical Student Organization:** No
- O. **Work- Based Learning:** No

IDEA/THEME: UNIT 1. ORIENTATION

ENGAGING TITLE:

ESSENTIAL QUESTION: *Enter Essential Question*

INSTRUCTIONAL HOURS: 5.0 Hours

Common Core Unit Objective

Enter Common Core Unit Objectives

Key Assignments

Enter Key Assignments

Anchor Standards

- 5.0 **Problem Solving and Critical Thinking:** Conduct short, as well as more sustained, research to create alternative solutions to answer a question or solve a problem unique to the Building and Construction Trades sector using critical and creative thinking, logical reasoning, analysis, inquiry, and problem-solving techniques.
- 9.0 **Leadership and Teamwork:** Work with peers to promote divergent and creative perspectives, effective leadership, group dynamics, team and individual decision making, benefits of workforce diversity, and conflict resolution as practiced in the Skills USA career technical student organization.
- 10.0 **Technical Knowledge and Skills:** Apply essential technical knowledge and skills common to all Pathway Standards in the Building and Construction Trades sector, following procedures when carrying out experiments or performing technical tasks
- 11.0 **Demonstration and Application:** Demonstrate and apply the knowledge and skills contained in the Building and Construction Trades anchor standards, pathway standards, and performance indicators in classroom, laboratory, and workplace settings, and through the SkillsUSA career technical student organizations.
 - 11.1 Utilize work-based/workplace learning experiences to demonstrate and expand upon knowledge and skills gained during classroom instruction and laboratory practices specific to the Building and Construction Trades sector program of study.

Pathway Standards

Enter Pathway Standards



Common Core Standards

RS 11-12.4 Determine the meaning of words and phrases as they are used in a text, including analyzing how an author uses and refines the meaning of a key term over the course of a text

RESOURCES:

Resources

Resources



IDEA/THEME: UNIT 2. REINFORCING STEEL

ENGAGING TITLE:

ESSENTIAL QUESTION: *Enter Essential Question*

INSTRUCTIONAL HOURS: 20.00 Hours

Common Core Unit Objective

Students will learn how to bend and place rebar and the importance of rebar in reinforcing walls

Key Assignments

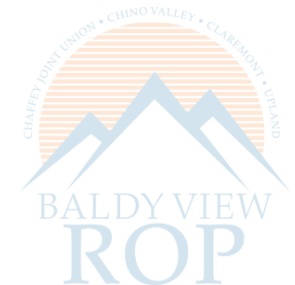
Enter Key Assignments

Anchor Standards

- 5.0 **Problem Solving and Critical Thinking:** Conduct short, as well as more sustained, research to create alternative solutions to answer a question or solve a problem unique to the Building and Construction Trades sector using critical and creative thinking, logical reasoning, analysis, inquiry, and problem-solving techniques.
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Pathway Standards

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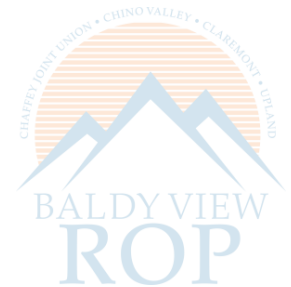
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IDEA/THEME: UNIT 3. BASIC BLUEPRINT READING

ENGAGING TITLE:

ESSENTIAL QUESTION: *Enter Essential Question*

INSTRUCTIONAL HOURS: *Enter total course hours spent on section*

Common Core Unit Objective

Students will learn how to read and understand Blueprints

Key Assignments

- Students in teams of 3 will read and make material cost break downs from a set of Blueprints.

Anchor Standards

- 5.0 **Problem Solving and Critical Thinking:** Conduct short, as well as more sustained, research to create alternative solutions to answer a question or solve a problem unique to the Building and Construction Trades sector using critical and creative thinking, logical reasoning, analysis, inquiry, and problem-solving techniques.
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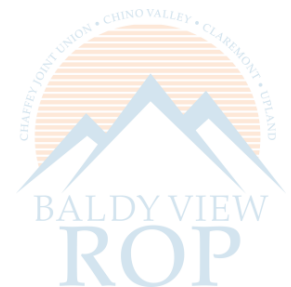
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IDEA/THEME: UNIT 4. MATERIALS-IDENTIFICATION USE

ENGAGING TITLE:

ESSENTIAL QUESTION: *Enter Essential Question*

INSTRUCTIONAL HOURS: 20.00 Hours

Common Core Unit Objective

Students will learn different applications of a variety of materials and their use.

Key Assignments

- Students to mix Mortar for their straight lead project.

Anchor Standards

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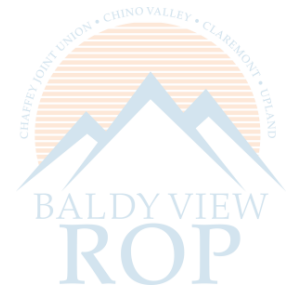
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IDEA/THEME: UNIT 5. CONSTRUCTION MATHEMATICS

ENGAGING TITLE:

ESSENTIAL QUESTION: *Enter Essential Question*

INSTRUCTIONAL HOURS: 10.00 Hours

Common Core Unit Objective

Students will know how to read a measuring tape and calculate measurements.

Key Assignments

- Students will use measuring and mathematics on their wood structure project.

Anchor Standards

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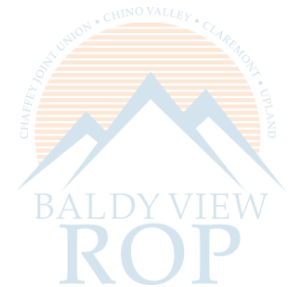
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IDEA/THEME: UNIT 6. MORTAR

ENGAGING TITLE:

ESSENTIAL QUESTION: *Enter Essential Question*

INSTRUCTIONAL HOURS: 20.00 Hours

Common Core Unit Objective

Students will know how to properly mix and apply mortar.

Key Assignments

- Students will mix Mortar and construct a straight lead.

Anchor Standards

- 5.0 **Problem Solving and Critical Thinking:** Conduct short, as well as more sustained, research to create alternative solutions to answer a question or solve a problem unique to the Building and Construction Trades sector using critical and creative thinking, logical reasoning, analysis, inquiry, and problem-solving techniques.
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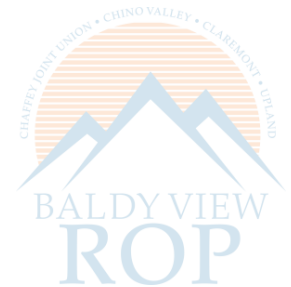
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RESOURCES:

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IDEA/THEME: UNIT 7. USE OF TOOLS AND EQUIPMENT

ENGAGING TITLE:

ESSENTIAL QUESTION: *Enter Essential Question*

INSTRUCTIONAL HOURS: 25.00 Hours

Common Core Unit Objective

Students will learn different tools and equipment in Masonry.

Key Assignments

Enter Key Assignments

Anchor Standards

- 5.0 **Problem Solving and Critical Thinking:** Conduct short, as well as more sustained, research to create alternative solutions to answer a question or solve a problem unique to the Building and Construction Trades sector using critical and creative thinking, logical reasoning, analysis, inquiry, and problem-solving techniques.
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IDEA/THEME: UNIT 8. INDIVIDUAL PROJECT

ENGAGING TITLE:

ESSENTIAL QUESTION: *Enter Essential Question*

INSTRUCTIONAL HOURS: 30.00 Hours

Common Core Unit Objective

Students will learn how to start and complete a project.

Key Assignments

- Students work on straight lead, sample panel and corner leads using newly acquired skills.

Anchor Standards

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IDEA/THEME: UNIT 9. PROJECT APPLICATION

ENGAGING TITLE:

ESSENTIAL QUESTION: *Enter Essential Question*

INSTRUCTIONAL HOURS: 40.00 Hours

Common Core Unit Objective

Students will learn to start and complete their projects.

Key Assignments

- Students work on individual long wall from start to finish.

Anchor Standards

- 5.0 **Problem Solving and Critical Thinking:** Conduct short, as well as more sustained, research to create alternative solutions to answer a question or solve a problem unique to the Building and Construction Trades sector using critical and creative thinking, logical reasoning, analysis, inquiry, and problem-solving techniques.
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