Building and Construction Trades

This sector provides a foundation in the Building and Construction Trades industry for secondary students in California. Students engage in an instructional program that integrates academic and technical preparation and focuses on career awareness, career exploration, and skill preparation in the Building and Construction Trades industry. The sector encompasses four career pathways: Cabinetry, Millwork, and Woodworking; Engineering and Heavy Construction; Mechanical Systems Installation and Repair; and Residential and Commercial Construction. These pathways emphasize processes, systems, and the way in which structures are built. The knowledge and skills are acquired in a sequential, standards-based pathway program that integrates hands-on, project-based, and work-based instruction. Standards included in the Building and Construction Trades sector are designed to prepare students for technical training, postsecondary education, and entry to a career.

Career Pathways

**Cabinetry, Millwork, and Woodworking Pathway**
The Cabinetry, Millwork, and Woodworking pathway provides learning opportunities for students interested in preparing for careers in cabinet construction, millwork, finish carpentry, and furniture making for both production and custom products.

**Careers/Career Areas:**
- Cabinetmaker
- Cabinet Installer
- Woodworking Machinery Operator
- Custom Millwork Project Estimator
- Woodworking Engineer/Drafter (CAD)

**Engineering and Heavy Construction Pathway**
The Engineering and Heavy Construction pathway provides learning opportunities for students interested in preparing for careers in engineering and heavy industrial construction (roads, highways, subdivisions). The pathway includes instruction in the way in which these structures are built (Class A California License).

**Careers/Career Areas:**
- Cement Mason
- Heavy Equipment Operator
- Iron Worker
- Welder
- Civil Engineer

**Mechanical Systems Installation and Repair Pathway**
The Mechanical Systems Installation and Repair pathway provides students with competencies fundamental for preparing for employment or advanced training in heating, ventilation, air-conditioning (HVAC) and appliance installation, maintenance, and repair. The pathway includes preparation for a Class C California License and EPA certification.

**Careers/Career Areas:**
- HVAC Installation and Maintenance Specialist
- Plumbing Installer
- Sheet Metal Fabricator
- Mechanical Engineer/Technician
- Mechanical Construction Field Manager

**Residential and Commercial Construction Pathway**
The Residential and Commercial Construction pathway provides learning opportunities for students interested in preparing for careers in construction and building design, performance, and sustainability. The standards focus on the manner in which residential and commercial structures are designed and built. The pathway includes instruction in the way in which these structures are built (Class B California License).

**Careers/Career Areas:**
- Plumber
- Electrician
- Building Inspector
- Estimator
- Carpenter