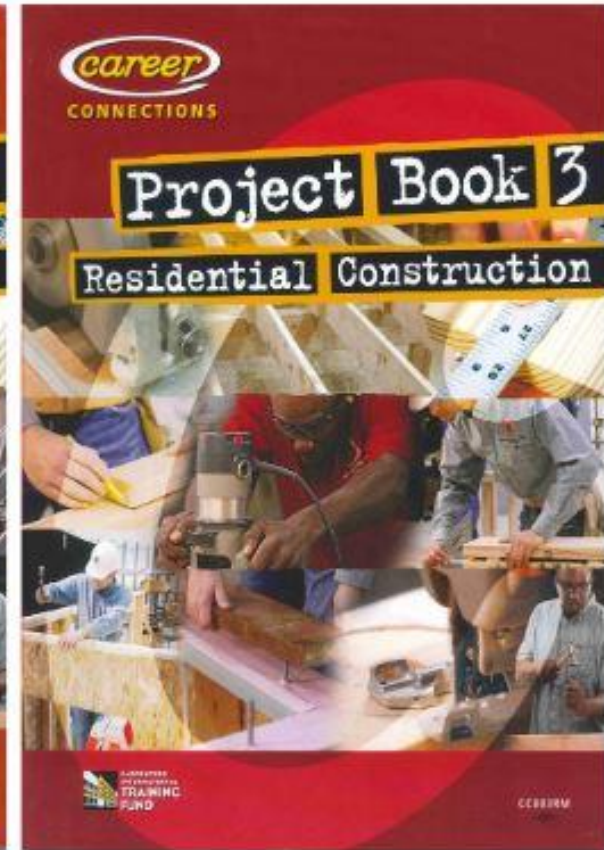
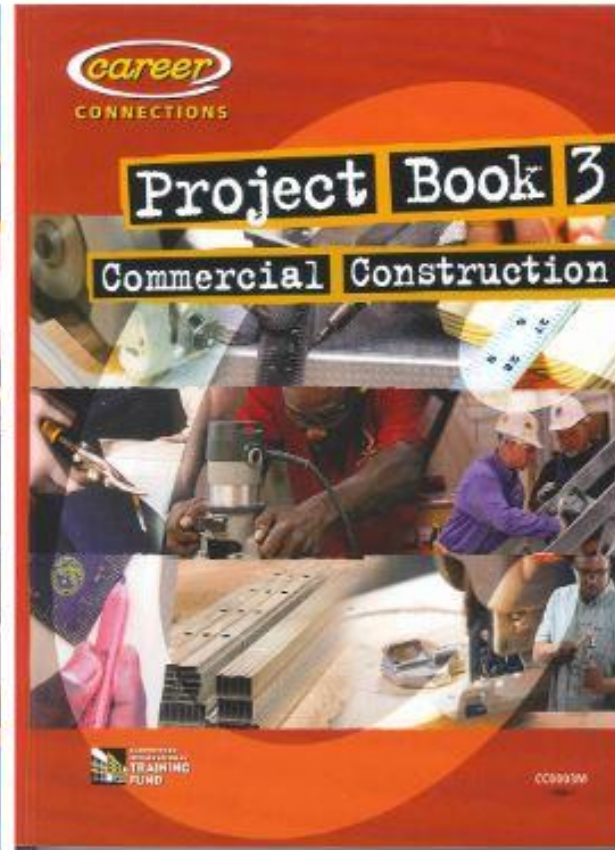
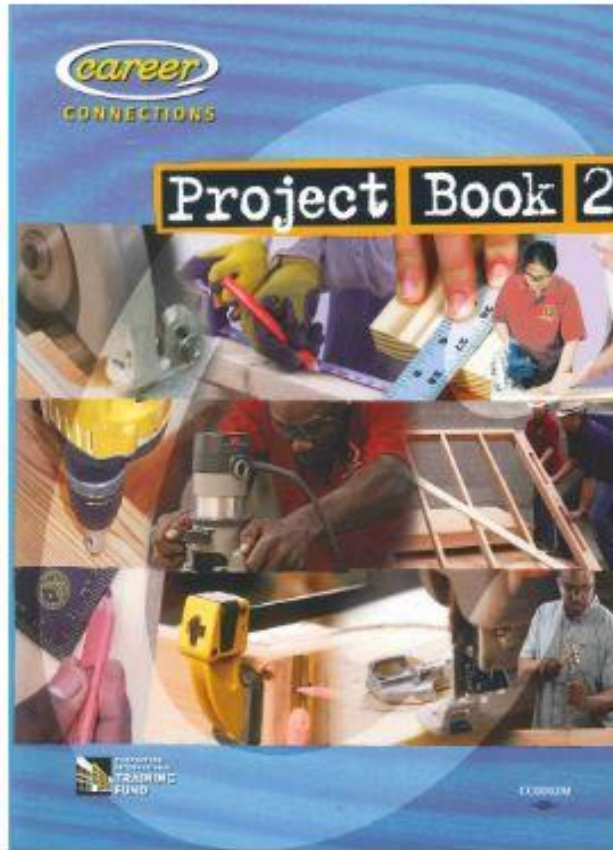
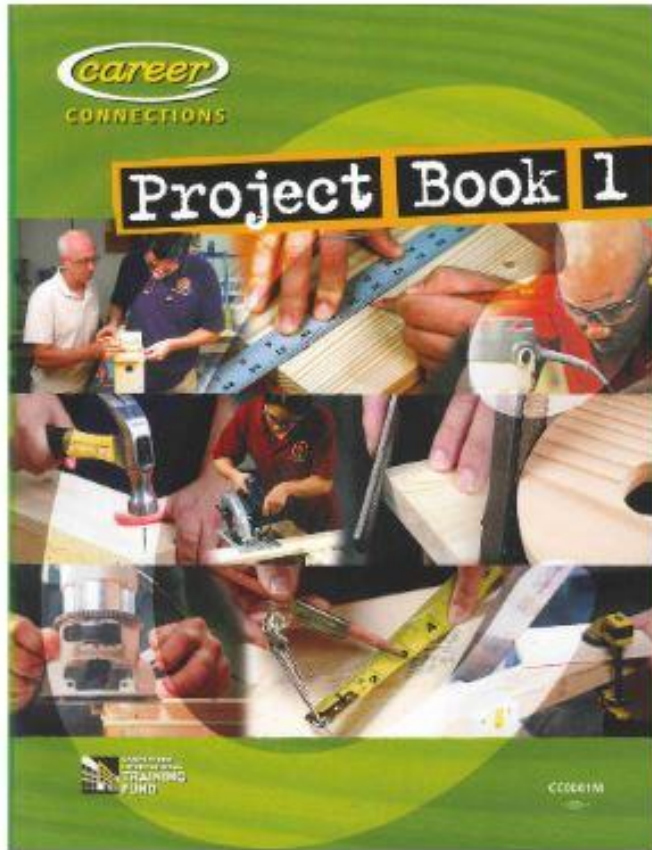




Project Books = Skill Development



PB1
Projects



PB2
Projects



PB3
pages

Unit 6

While the main purpose of a door is to make the interior space of a building accessible, a door can also serve as an attractive part of a building's design. In the building's construction, rough openings are left in the walls and portions of doors. These openings are later filled with finished doors that can be opened, closed, and locked. The door is installed using pins inserted by an airless, along with caulk from the manufacturer. It is installed in the rough opening in a frame specifically designed for the door. The frame—and the hardware that goes with the frame—allows the door to swing smoothly when opened or closed. It also allows the door to be locked or locked. There are many types of door frames, but the most common are the jamb, the transoms, and the door frame. The jamb is the part of the door frame that is visible when the door is closed. The transoms are the parts of the door frame that are visible when the door is open. The door frame is the part of the door frame that is visible when the door is open.

DOORS AND HARDWARE



2 Installing Knockdown Metal Door Frames

The following procedure explains how to install a knockdown metal door frame. The procedure can be completed successfully by one person but can be more efficiently handled by two people. Be sure to check the door swing before beginning the installation process.

Expectations

When your project is complete, it will be evaluated on its overall appearance and on the quality of your work. Your teacher will consider the following criteria:

- The correct door frame is used to match the rough opening.
- The head jamb and side jamb are properly installed.
- The frame is installed plumb and level.
- The compression anchors are firmed up to the king stud properly.

You will need the following tools:

- Screw gun
- 1" 4" and 6" level
- Slotted and Phillips head screwdriver
- Doors and hardware tool pouch

You will need the following materials:

- Knockdown door frame optional securing clips
- Door spooler
- 1" Type 3 drywall screws
- Shims

CAREER CONNECTIONS PROJECT BOOK 3: COMMERCIAL CONSTRUCTION

PROCEDURE

Installing Hinges on a Door

1. Place the door lengthwise on floor protection with the hinge pin openings pointing toward you.
2. Measure from the head jamb to the center of the stile plate on the stile jamb.
3. Match the dimension found in step 2 on the door by measuring from an end to the center of the latch or lockset hole to determine the top of the door. See Figure 3.
4. Place the hinges into each gain on the door oriented with the top of the door. See Figure 3.
5. Check that the hinge is flush with the door and jamb edge. Adjust as necessary.
6. Drill a pilot hole for each screw used to attach the hinge to the door. See Figure 4.
7. Drive wood screws into the pilot holes using a screw gun, securing the hinges to the door as shown in Figure 5.
8. Complete the hinge installation as shown in Figure 6.

Figure 3 Placed hinges

Figure 4 Drilled pilot holes



Figure 5 Completed hinge installation

Figure 6 Driving wood screws



Skills Matrix, Project Book 1

Skill	Lead-Up Exercise	Tote Box	Paper Towel Holder	Foot stool	Bird House
Using/threading a measuring tape					
Interpreting prints					
Creating a cut list					
Transferring measurements from print to project					
Using templates					
Using a jig					
Making Cuts					
bevel cut with a circular saw					
bevel cut with a sliding compound miter saw					
chop cut with sliding compound miter saw					
crosscut with a circular saw					
crosscut with hand saw					
compound cut with a sliding compound miter saw					
compound miter cut with a circular saw					
miter cut with a circular saw					
miter cut with a sliding compound miter saw					
rip cut with a circular saw					
slide cut with sliding compound miter saw					
taper					
Using Measuring Tools					
Chalk box					
creating a straight line with a chalk box					
Combination square					
checking a combination square for accuracy					
checking 90 degree angles with a combination square					
laying out a 45 degree angle with a combination square					
laying out a parallel line with a combination square					
Compass					
drawing a circle with a compass					
forming arcs with a compass					
Framing square					
checking the framing square with accuracy					
Measuring tape					

indicates when the tool, object, or task is first introduced to the student

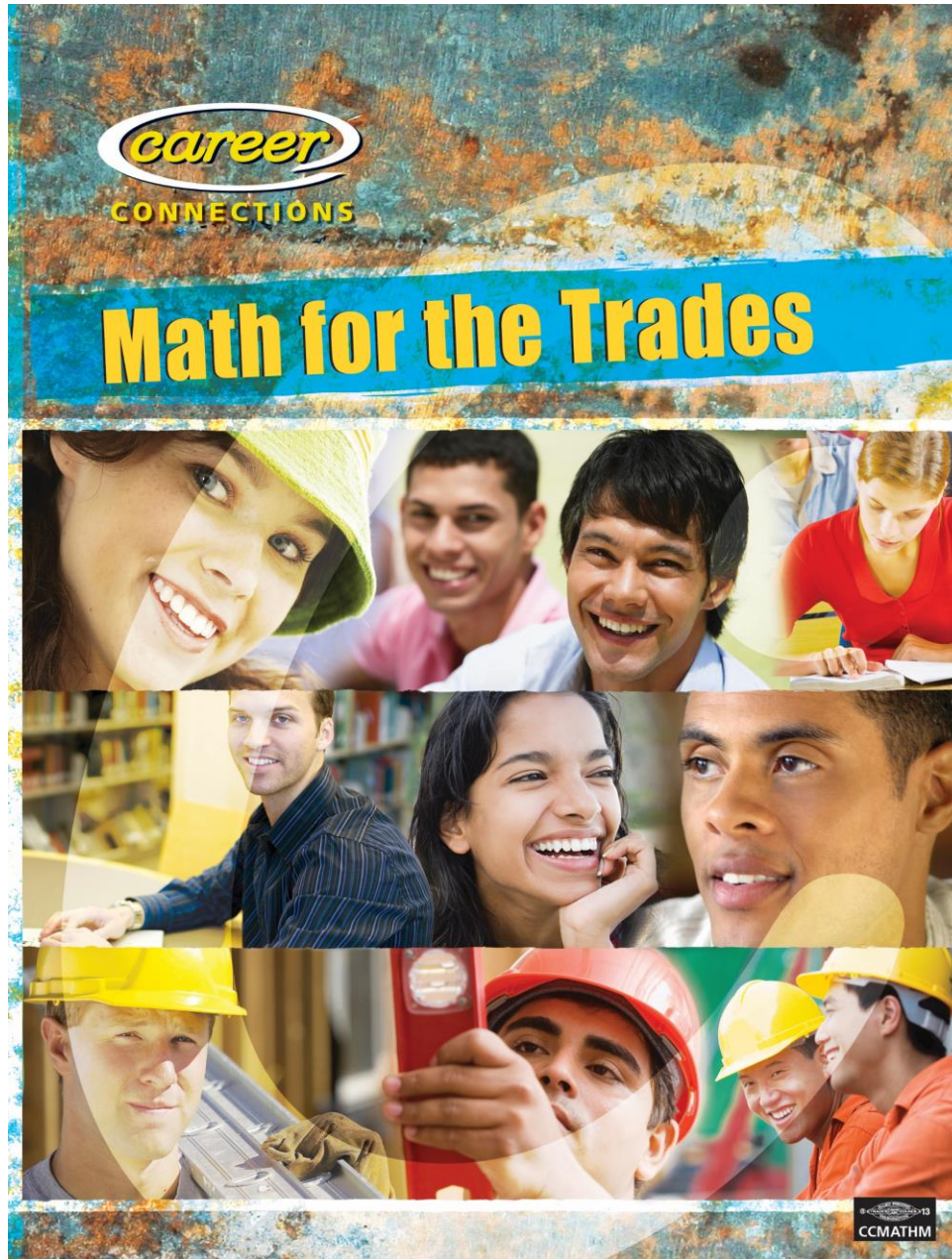
indicates when the tool, object, or task is included in the project or lead-up exercise

[illegible]

Industry Recognized Credentials



Integrate Academics into CTE Programs



Section 2 WORKSHEET 2

Area Measure of a Rectangle

Instructions Determine the number of pieces of $2' \times 4'$ ceiling tile required for a rectangular room. Compute the area of the room and then divide the area of the room by the area of a piece of $2' \times 4'$ ceiling tile, disregarding light fixtures and HVAC diffusers. To complete this task successfully, the student will:

- draw a sketch
- take measurements
- compute area

Materials

pencil
paper
notebook
room with $2' \times 4'$ ceiling tiles

Tools

tape measure
piece of $2'-0" \times 4'-0"$ ceiling tile

Procedure

1. Make a sketch of the room in the notebook.

Integrate Academics into CTE Programs



What is a Construction Site?

The construction process will differ from project to project, but most structures are built in the following stages:

- Site preparation
- Establishing the foundation
- Erecting a framework
- Installing underground utilities



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What Happens on a Construction Site? 3 - 13

What is a Construction Site? cont.

Once the framework is in place and the underground utilities are complete, the following stages are begun:

- Enclosing the building
- Finishing the exterior
- Finishing the interior
- Inspections



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What Happens on a Construction Site? 3 - 13

Construction Roles and Responsibilities

- **Architect** – A person that plans the structure to be built by creating scale drawings of the building and dimensions of all the elements
- **Designer** – The person focused on the appearance and functional aspects of a structure
- **Engineer** – The person focused on the structural integrity of a building and the materials used to build it



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What Happens on a Construction Site? 4 - 13



Introduction to Millwrighting



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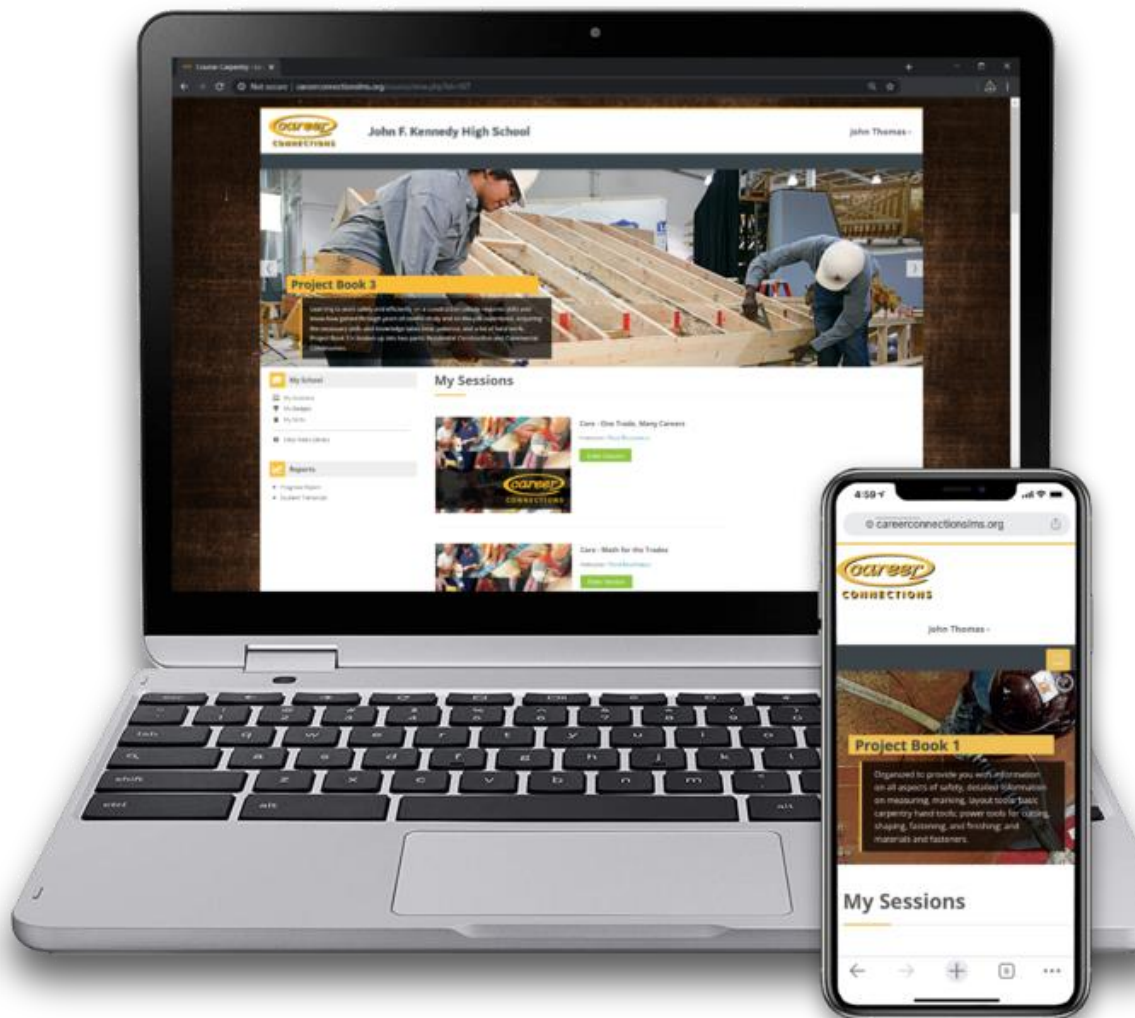
Oxyfuel Cutting and Shielded Metal Arc Welding



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**More
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Select a Project

Bird House

Project Book 1

Tote Box
Paper Towel Holder
Foot Stool
Bird House
Saw Key Holder
Coat Rack
Step Stool
Chest
Bread Box
Bookcase
CD Rack
Magazine Rack
Tool Box
Kids' BBQ Table
Storage Chest

Project Book 2

Saw Horses: Notched-Top
Saw Horses: I-Beam
Saw Horses: Beveled-Top

Skills Covered in Bird House

Safety and Operations Checklist

☒ Claw Hammer (Hammer)

☒ Electric Drill (Drill)

☒ Other Hand Tools

☒ Portable Circular Saw (Circular Saw)

☒ Screw Gun

☒ Wood Rasp

Lead-Up Exercises - Hand and Portable Tools

☒ Claw Hammer (Hammer) ⓘ

☒ Combination Square

☒ Electric Drill (Drill) ⓘ

☒ Nail Set ⓘ

☒ Portable Circular Saw (Circular Saw) ⓘ

☒ Sandpaper and Sanding Blocks

☒ Screw Gun ⓘ

Skills - General

☒ Using/Reading a Measuring Tape

☒ Interpreting Prints

☒ Creating a Cut List

Skills - Measuring Tools

☒ Combination Square

☒ Combination Square - Laying Out a Parallel Line

☒ Measuring Tape

Skills - Hand Tools

Affordable Textbooks

**Schools
choose:**
*One book
per pupil or
a classroom
set*

One Trade, Many Careers (Student)	\$10.28
One Trade, Many Careers (Teacher's Annotated Edition)	\$32.06
Project Book 1 (Student)	\$12.53
Project Book 1 (TAE)	\$47.57
Project Book 2 (Student)	\$16.24
Project Book 2 (TAE)	\$50.72
Project Book 3-Residential (Student)	\$23.98
Project Book 3-Residential (TAE)	\$83.19
Project Book 3-Commercial (Student)	\$19.71
Project Book 3-Commercial (TAE)	\$62.71
Math for the Trades (Student)	\$19.15
Math for the Trades (TAE)	\$50.72
Oxyfuel Cutting & Shielded Metal Arc Welding (S)	\$17.91
Oxyfuel Cutting & Shielded Metal Arc Welding (TAE)	\$30.79
Introduction to Millwrighting (Student)	\$30.03
Introduction to Millwrighting (TAE)	\$38.21
<i>Career Connections Learning Management System (LMS)</i>	
Annual Teacher's Site License for Career Connections LMS	\$101.00
Annual Student Site License for Career Connections LMS	\$17.00



Teachers Like ...

Lesson Plans

Safety Operations
Checklists for
tools

Question
Bank/Assessment
Generator

Timelines for
Implementation

Material Lists

PowerPoints

Chapter Reviews

Virtual Shop:
How-To Videos

Blueprints

Rubrics

Evaluation Forms

Math Practice
Sheets

Career Connections Schools are PNCI's Priority

- Career Fairs
- Classroom Visits
- Job Shadows at PNCI
- Teacher Workshops
- HS Summer Internship



Albany Options School

Battle Ground HS

Bend Senior HS

Bend Tech Academy at Marshall

Benson HS

Central HS

Cleveland HS

Crescent Valley HS

Creswell HS

David Douglas HS

Early College & Career Options (ECCO)

Elmira HS

Evergreen HS

Franklin HS

Gladstone HS

Grant HS

Harrisburg HS

Helensview HS

Hudson Bay HS

Career Connections in OR/SW WA

Jefferson HS

La Grande HS

Lincoln County SD

Lowell Junior/Senior High

Madison HS

Mark Morris HS

Medford School District

Merlo Station

Mountain View HS

Obsidian MS

Redmond HS

Reynolds HS

Reynolds Learning Academy

Riverside Jr/Sr High

Roosevelt HS

Sabin Schellenberg Tech Ctr

Santiam HS

Silverton HS

St Helens HS

Stayton HS

Tigard HS

Toledo HS

Triangle Lake Charter School

Tualatin HS

Willamina HS

Wilson HS

Pre-Apprenticeship Programs

Oregon Job Corps Centers

Community Services Consortium Pre-Apprenticeship

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