



# TRADES DAY

## HANDS-ON DEMONSTRATION IDEAS

### CARPENTRY

Measuring and cutting lumber

Building basic frame structure: Header for a window.

Practicing basic joinery techniques

How different types of wood are used for different kinds of jobs.

### FABRICATION | CONCRETE

Fabricating sheet metal into pencil holders

Concrete Curb (Roto Hammer and being able to install screw anchors)

### MECHANICAL

Sheet Metal Ductwork

Screw drilling skill test- individuals will screw various sizes of screws with one hand while supporting the stand with their other hand

Sheet metal cutting competition - group of 4 individuals will cut various shapes in a timed situation. Fastest time and name of individual of each group will be documented

Copper Fitting Cutting

Tool box build and a sheet metal dice build

3D BIM/CAD Navigation

### ROOFING

Measuring and cutting roofing materials

Installing insulation, underlayment, and shingles on a small section

Replacing a damaged or leaky section of roof, installing a small section of gutter and downspout

Roof mock up with hands on shingle application

### MASONRY

Mixing and laying a small section of brick wall

Cutting and shaping stone

Building a small walkway

### PLUMBING

Measuring and cutting pipes

Assembling and installing basic systems

Repairing a leaky faucet

Repairing a clogged drain

Show how debris is snaked out of main sewer line using our professional Snake

Soldering display and faucet/ sink display

### FLOOR & TILE

Installation and grouting process for ceramic tile

Lay out a tile pattern by setting and grouting tile using a notch trowel, grout float, cutting board, cordless drill and other tile tools

### OPERATING ENGINEERS | ARCHITECTURE

A simulator to demonstrate operation of heavy equipment

Blueprint Reading

Drone

### COLLEGES | LOCAL WORKFORCE

Prize Wheel Spin

Can you guess how many....

Show off an aspect of your construction program with a mini activity

Virtual Reality Headsets

### ELECTRICAL

Wiring a basic electrical circuit

Wire a light switch, or install a ceiling fan

Electrical board with switches, close & open circuits that power light bulbs

Cutting and bending conduit and pulling wire

### GENERAL CONTRACTORS

Operating a mini excavator, digging in a rock pile

Introduction to Power Tools- Get hands-on with cutting, drilling, sanding, and more, all while learning about tools

How to Properly Use a Screw Gun with Drywall + Competition

We will have two small landings and two small sets of stairs on display. There will be hands-on opportunities installing treads and risers. There will also be a hands-on opportunity to lay out a stair stringer

Nail Driving Competition - driving nails into boards with hammers

Harness demo and knot demo

### WELDING

Cutting and preparing metal pieces for welding and cleaning the surface

Welding basic joints, and practicing on scrap materials

Virtual Welding

A brazing station to braze copper & pressure test

### PAINTING | MANUFACTURING | FIRE SYSTEMS

A demonstration of the basic techniques and materials involved in construction painting

Mock up wall with wall protection and other division ten items on it, hand rail, crash rail, corner guard, a roll up door that will be fully operational, a locker partially assembled. Students can screw on some of the accessories to the mock wall, operate the overhead door, install locker parts using a battery operated screw driver

Assemble of sprinkler heads and CPVC pipe

**PLEASE PROVIDE APPROPRIATE PPE FOR STUDENTS TO ACCOMPANY YOUR DEMONSTRATION**