



Carpentry Training

What is JA Trades?

- Junior Achievement of Greater St. Louis offers a program called JA Trades, designed to introduce middle and high school students to careers in the trades. This hands-on program emphasizes the value of STEM skills and provides real-world experiences across a variety of trade professions.
- Students rotate through different stations to gain practical insight into careers such as welders, electricians, carpenters, and more.
- Volunteers play a vital role in the success of this program. We appreciate your support and hope your experience is both rewarding and memorable.

Why teach Trades?

- High Demand: Skilled workers are needed more than ever as many retire.
- Career Path: Trades offer a solid, well-paying alternative to college.
- Hands-On Learning: Ideal for students who prefer practical, real-world skills.
- Strong Earnings: Many trade jobs offer great pay and benefits.
- Essential Roles: Trades are critical to keeping our communities running.

Volunteer Role

- Students will rotate through several trade stations to gain first-hand experience with different skilled careers. You will lead two hands-on activities designed to show students what it's like to be a carpenter. You'll explain each activity, guide them through it, and highlight how the skills they learn are used in trades.



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What is Carpentry?

Carpentry is the skilled trade of **cutting, shaping, and installing wood** (and sometimes other materials) during the construction of buildings, ships, furniture, and other structures.



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Industries that use Carpenters



- Construction
- Remodeling and Renovation
- Furniture and Cabinet Work
- Facility Maintenance
- Set Design and Entertainment
- Shipbuilding and Marine Industry
- Civil Engineering and Infrastructure
- Government and Military



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Certification Information

- Highschool diploma or GED
- Apprenticeship – On-the job training
- Trade School or Vocational Training
 - (Optional)
- Certification or Licensing
 - (Optional but Valuable)



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Student Activity 1- You Nailed It!

How to play:

- Safety Glasses on.
- Stand at the edge of the carpet until it's your turn.
- When the hammer is passed to you, step up and take your swing at the nail in the stump.
- One hit per turn, then pass the hammer onto the next person.
- The first person to get their nail in flush to the tree stump gets to call "Nail It".



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Student Activity 2- Build a Bench



The bench will be built by students throughout the day as they rotate through the station.

Attach the Legs: Connect the legs to the seat frame using the provided hardware.

Secure the Backrest: Attach the backrest to the seat and leg assembly.

Attach the Armrests: Secure the armrests to the main structure.

Tighten Screws: Once all components are loosely assembled, go back and gradually tighten all screws and bolts.



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What students should expect?

- Hands-On Work: Learn by building and using real tools.
- Tool Safety: Practice using tools safely and correctly.
- Math Skills: Use measuring and basic math in every project.
- Teamwork: Work together and follow directions.
- Problem Solving: Fix mistakes and adjust plans.
- Patience: Take your time and focus on details.
- Real-Life Skills: Gain experience useful in many jobs.



Simulation Activity Instructions

Assembly Steps

1. Unpack & Check Parts

Lay out all the parts and hardware. Check against the parts list in the instructions to ensure nothing is missing.

2. Identify Components

Label or sort the pieces (legs, side panels, backrest rails, slats, armrests, crossbars, etc.).

3. Attach Side Panels to Legs

- Position one leg upright.
- Align a side panel to it (slot or holes matching).
- Use bolts/screws (don't tighten fully yet) to loosely fasten.
- Repeat for the corresponding leg on the other end.

4. Install Cross Supports / Stretchers

- Connect the two leg assemblies using crossbars or stretchers (these run between legs for stability).
- Insert bolts through the frame and loosely secure.

5. Attach the Seat Slats / Boards

- Lay the seat slats across the frame top (from front to back).
- Align them evenly, leaving small gaps between slats.
- Fasten down each slat with screws or bolts (again, start loosely).

6. Add Backrest / Back Slats (if applicable)

- Align backrest boards against the back posts or frame.
- Fasten with screws or bolts.

7. Install Armrests (if included)

- Position armrests over the top of the legs/side panels.
- Use bolts or screws to secure them to both the leg and the side panel.

8. Double-Check & Tighten Everything

Make sure the bench is square and level.

- Then go through and fully tighten all fasteners in a systematic order (legs first, then slats, then arms/back).

• Final Check

- Sit gently and test for wobble.
- Adjust or tighten any loose parts.

- You will receive a handout with detailed instructions upon your arrival to JA Trades. JA staff will check in to ensure you are comfortable with the task at hand and answer any questions you may have.



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THANK YOU!

**We look forward
to seeing you at
JA Trades!**

Enjoy the Day!



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