Explore The Trades Contractor Toolkit

Resources and strategies to help contractors build lasting relationships with local schools

EXPLORE THE TRADES

PLUMBING • HVAC • ELECTRICAL

Welcome to the Explore The Trades Contractor Toolkit

Dear Industry Leader,

The future of the trades begins with you.

Across the plumbing, heating, cooling, and electrical trades, demand continues to grow and we know that the talent pipeline is not keeping pace. Hiring from an existing labor pool is no longer enough. Sustainable growth requires something more intentional: shaping the next generation of skilled professionals through partnership.

That work starts with education.

Career & Technical Education (CTE) programs across the country are preparing students for their future careers with hands-on skills and career exploration activities. But education cannot do this alone. When industry steps in, CTE becomes aligned with real workforce needs. Students are prepared, businesses grow, and communities become stronger.

This toolkit was designed to help you move from awareness to action.

Inside, you'll find clear, practical strategies to:

- Build relationships with local elementary, middle and high schools
- Engage meaningfully with CTE students, instructors and administrators
- Position your company as an industry leader in your community

You can make an impact through your industry voice and that's what's needed most. When industry participates in shaping trades education, they influence curriculum relevance, strengthen hiring pipelines, and elevate the skilled trades.

Explore The Trades is proud to stand alongside contractors who are ready to invest in long-term solutions.

Thank you for helping shape the future of our industry.

Sincerely, Explore The Trades

Make a gift today to help empower the trades of tomorrow!

Career & Technical Education (CTE)

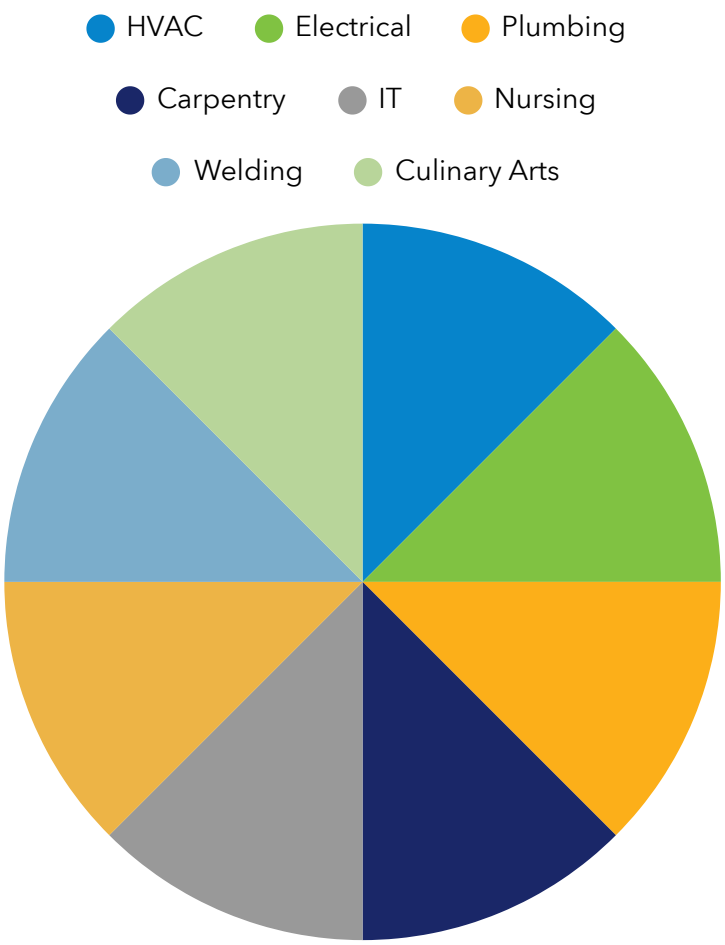
What is CTE?

Career and Technical Education (CTE) is a hands-on educational approach that combines academic learning with real-world technical training to prepare students for careers in in-demand industries like the skilled trades. It helps students develop both technical and employability skills aligned to workforce needs.

Why does CTE in school matter?

CTE gives students real-world context for what they're learning in school – showing how math, science, and problem-solving connect to real jobs. It also supports career clarity, helping students understand what they enjoy and where they might want to work after graduation.

CTE Sectors



2025 CTE Statistics from the Association of Career & Technical Education

- Funding is growing: 34 states expanded state-level CTE funding, and 1.44 billion in federal Perkins Act funds supported CTE programs nationally in FY24.
- More employer incentives: 34 states added tax credits or grants to encourage employers to hire apprentices and interns.
- Credentials matter: 30 states expanded or incentivized industry-recognized credentials to ensure graduates are job-ready for high-demand fields.
- Work-based learning is surging: 34 states made work-based learning a top policy priority, expanding internships, apprenticeships, and employer-led projects, and tax incentives to increase hands-on learning opportunities.

Click here to learn more about these 2025 CTE Statistics.

EXPLORE THE TRADES
PLUMBING • HVAC • ELECTRICAL

How Can You Get Involved?

Guest Speaker	30 - 60 minutes (single class or assembly)	Visit a classroom and share expertise about your industry. Topics could include: skills needed, education required, your career journey, a day in the life, etc.
Serve on an Advisory Board	1 -2 hours per meeting (generally 1 to 2 times a year)	Participate in a school or district advisory board to offer insights into industry trends, workforce needs, and emerging skills.
Career Day / Fair	2 - 4 hours (one-time event, often times yearly)	Participate in events where employers get to speak to large audiences of students about their company and the job opportunities that exist.
Curriculum Advisement	1 -2 hours per session (usually 1 to 2 times per year)	Meet with teachers to review and provide input on curriculum content to ensure alignment with current industry standards and workforce needs.
Company Spotlight	1 - 2 hours to create and share (one-time)	Businesses provide brochures, digital content, and visual materials for schools highlighting their company, the work they do, and employment opportunities.

Adapted from the Academies of Louisville.

EXPLORE THE TRADES
PLUMBING • HVAC • ELECTRICAL

How Can You Get Involved?

Industry Tour	1-3 hours (could be once a year)	Host students to the shop or a worksite to see operations firsthand.
Mock Interviews	15-30 minutes per student (usually 2-3 hours total)	Assist educators in mock interviews to allow students to practice their interview skills and receive constructive feedback with actual employers.
Judge / Panel Member	1 - 3 hours	Judge student presentations or competitions and provide constructive feedback for student improvement.
Job Shadowing	½ day to full day (generally less than 10 hours total per student)	Students observe workers on the job.
Teacher Externships	½ day - 3 days depending on the program	Host teachers on site to learn about the skills and competencies needed to succeed in the industry.

Adapted from the Academies of Louisville.

EXPLORE THE TRADES
PLUMBING • HVAC • ELECTRICAL

How Can You Get Involved?

Equipment / Material Donation	1-2 hours for coordination (one-time)	Donate resources (equipment, materials) to partner schools to help with hands-on experiences.
Mentorship	1 hour per month (generally on-going for 6-12 months)	Develop one-on-one relationships with students to help build their understanding of careers in the skilled trades.
Project-Based Learning	1-2 hours a week for several weeks (duration of the project)	Assist teachers in designing a student project that engages students in solving a real-world problem or answering a complex question.
Soft Skills Training	1-2 hours per session	Assist with sessions on communication, teamwork, and professionalism related to your industry.
Industry Certifications	Varies depending on the training (4-40 hours)	Businesses can sponsor or provide training for certifications. (ex: OSHA 10, EPA 608)

Adapted from the Academies of Louisville.

EXPLORE THE TRADES
PLUMBING • HVAC • ELECTRICAL

How Can You Get Involved?

Student Internship	Will vary by state and school (from 4 weeks to the school year)	Host a student for a set amount of hours and provide training and opportunities to apply what they have learned in their career pathway. Can be paid or unpaid.
Student Apprenticeship	6 months-2 years	Structured programs for students to learn a trade or skill.
Guest Instructor	A class period (hands-on lesson), a week (unit), a semester (class)	A business teaches a class or leads a workshop on a specific topic related to their expertise. Gives students hands-on exposure to industry practices, tools, and techniques while connecting classroom learning to real-world application.
School-Based Enterprises	1-2 hours per week	Businesses mentor students running school stores, cafes, or e-commerce ventures.
Industry Sponsored Competitions	1-2 days (plus prep time)	Businesses host contests where students apply technical and creative skills.

Adapted from the Academies of Louisville.

EXPLORE THE TRADES
PLUMBING • HVAC • ELECTRICAL

Contractor Toolkit

Engaging the Next Generation:

Thank you for supporting the next generation of skilled trades professionals. By participating in classroom visits, career fairs, and hands-on learning experiences, you help students discover rewarding careers they may not have considered. Your time, stories, and experiences can inspire students to see a future in the skilled trades.

How to Use This Toolkit:

Activities are organized by grade level so you can easily choose what works best for your time, audience, and setting.

Safety Reminder:

Student safety is always the top priority. Follow school policies and local safety guidelines, and ensure students are properly supervised when interacting with tools, materials, and equipment.

Below is a list of activities included in this toolkit organized by grade level:

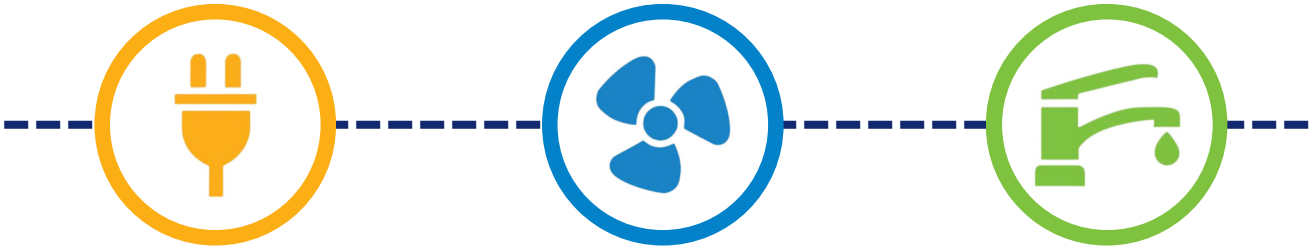
All Levels	Elementary School	Middle School	High School
• Guest Speaker Guide • Guest Speaker Question Bank • Career Day Best Practices • Mock Interviews • Industry Tour Sample Agenda • Project Based Learning/ Material Donation	• Kids Poster Series • Coloring Pages • Explore The Trades Word Search • Next Steps Checklist - Elementary School	• "The Trades Are Everywhere" Scavenger Hunt • Next Steps Checklist - Middle School	• Career Pathways • Next Steps Checklist - High School

EXPLORE THE TRADES
PLUMBING • HVAC • ELECTRICAL

Guest Speaker Experience

Being a guest speaker typically requires a **30-60 minute commitment**. This experience may be a single class or multiple classes together. In some cases you will have just enough time to introduce yourself and your career, where as other times you may be able to play some sort of game or activity with the students.

The goal is to educate students about the potential of a future career in the skilled trades (and even a step further as a future new hire for your company), and you can even leave them with printed resources like career paths or a Next Steps Checklist.



Introduction

Introduce yourself & your company

How do you help people?

What are the trades?

Engagement

Have the kids do something fun! Use our question bank and other activities in the toolkit, or purchase and read them a book about the trades.

This is also a great time to bring in hand tools or PPE to share with the students.

Guidance

Prepare the students with our "Next Steps Checklist" or guide them in how they can get into the trades when they get older.

Click here to check out our "Introduction To The Trades" slide decks to use for your guest speaker experience.

EXPLORE THE TRADES
PLUMBING • HVAC • ELECTRICAL

Guest Speaker Question Bank

To make the session a little more interactive, cut out the question cards below and put them into a bowl. One at a time, allow students to draw a question from the bowl and discuss the answer as a group.

What does a normal workday look like for you?	What kinds of problems do you solve most often?	Do you work alone or with a team?
What's the coolest or most interesting job you've worked on?	How did you get started in this trade?	How long does it take to become fully skilled or licensed?
Can you earn money while you're learning the trade?	What advice would you give a student who's interested in the trades?	What skills matter most in your job?

EXPLORE THE TRADES
PLUMBING • HVAC • ELECTRICAL

How do you use math and science in your job?

What skills did you not expect to use, but now use all the time?

What soft skills matter most?

How does pay typically change as you gain experience?

Is this a stable career?

Can you move up or specialize in different areas?

Is owning your own business an option in this trade?

What benefits can come with this kind of career?

What's the hardest part of your job?

What's the most rewarding part of your job?

How physical is the work, and how do you take care of your body?

What do people misunderstand most about the trades?

EXPLORE THE TRADES
PLUMBING • HVAC • ELECTRICAL

Career Fair Best Practices

Career days for students typically range from a **2-4 hour commitment** for participating companies. In the elementary and middle school settings, students will usually attend the career fairs with their class, and rotate between stations (companies) every 5-10 minutes while students in the high school setting will usually attend the career fairs for a set amount of time, in which they walk up to the booths they find interesting.

Keep interactions high-energy and fun. The goal here is to familiarize students with possibility of a career in the skilled trades and for them to make connections with potential future employers.

Tips & Best Practices

- Have hands-on, interactive experiences. This approach fills a common gap in many companies' outreach efforts and can help your booth stand out and connect with students.
  - Some examples include stripping small sections of wire, put together a P-trap from pipe pieces, and bringing hand tools students can examine.
- Be sure to have swag kids find interesting like stickers, pens and pencils, and a full candy bowl!
- Show videos from job sites to show what life is really like out in the field.
- Invite some of your best techs to join you at the table.
- Talk about earning potential - high school students care about money and get excited learning what they can earn!
- This is a great time to print and share resources like the Explore The Trades career path posters.

Request a Classroom Poster Kit!

EXPLORE THE TRADES
PLUMBING • HVAC • ELECTRICAL

Mock Interviews

Mock interviews are a way for students to practice interviewing for a job before the real thing. These experiences often ask for community volunteers to facilitate the student interviews and provide valuable feedback. This commitment typically takes **15-30 minutes per student (usually 2-3 hours total)**.

Where can mock interviews take place?

- ☑ In-Person
- ☑ Virtually

According to WifiTalents, a market research company, mock interviews are crucial in setting up candidates for success. Approximately 78% of candidates say that interview preparation is vital to their success.

Benefits to the Student	Benefits to the Contractor
• Builds real interview confidence before it counts • Improves communication and professional language • Teaches how to answer questions clearly and thoughtfully • Reduces interview anxiety through practice • Provides direct feedback from real employers • Helps students understand workplace expectations	• Early access to future talent before graduation • Shapes student expectations to match real-world hiring needs • Improves the quality of future entry-level applicants • Builds brand awareness with students, parents, and educators • Strengthens relationships with local schools and CTE programs • Positions the company as a community and workforce partner

EXPLORE THE TRADES
PLUMBING • HVAC • ELECTRICAL

Mock Interview Question Bank

Questions About Career Readiness & Soft Skills:

- Tell me about a time you received feedback. What did you do with it?
- What's something you're working to improve right now?
- How do you respond when something feels challenging?
- Tell me about a time you worked on a team. What role did you play?
- How do you handle disagreements in a group?
- What makes someone a good teammate?
- What do you do first when you don't know how to solve a problem?
- How do you handle mistakes?
- What does being "reliable" mean to you?
- How do you make sure you show up prepared and on time?
- How would you explain something complicated to someone who doesn't understand it?
- Tell me about a time you had to speak up or ask for help.

General Questions About The Skilled Trades:

- What made you decide to take a shop or CTE class?
- What do you enjoy most about hands-on learning?
- What trade or career are you most interested in right now?
- What do you think a typical day looks like in the skilled trades?
- How do you think the skilled trades make a difference in the community?
- What skills have you learned in class that would help you on a job site?

Providing Feedback:

- Be sure to highlight any specific questions the student answered exceptionally well.
- When giving constructive feedback, tie the question back to specific skills so the student has a better idea where to focus for improvement.

EXPLORE THE TRADES
PLUMBING • HVAC • ELECTRICAL

Industry Tour Sample Agenda

Onsite field trips are typically recommended for middle school and high school aged students, and **can range anywhere from 90 minutes to three hours**. Each class may have different limitations, so it is best to connect with the teacher to collaborate on this experience together.

Introduction

- Introduce the key players in your company.
- What do you do?
- Who do you help?
- How does the company service the community?

Shop Tour

A shop tour is an opportunity to show students how the business operates. Discussion stations may include: company vehicle, warehouse, office, training room, etc.

Stations

Tools - Set out hand tools on a table. Discuss tool names & utilization with the students.
PPE - Discuss the importance of job safety.
Day in The Life Scenarios - Invite technicians to talk about their jobs and the types of service calls they have each day.
Career Paths - Use the Explore The Trades career paths and discuss what it looks like to advance in this industry.

Q & A

Use the guest speaker question bank for engaging conversations about what it's like to work in the skilled trades.

Send students home with a Next Steps Checklist and company swag as a fun way to complete their visit.

EXPLORE THE TRADES
PLUMBING • HVAC • ELECTRICAL

Project-Based Learning / Material Donation

Funding for hands-on projects can be limited in many schools – but you can help without impacting your bottom line.

Donating an old unit from an installation job gives career and technical education students the opportunity to explore, troubleshoot, and diagnose real equipment.

You can also support project-based learning by donating leftover materials and partnering with students to build something meaningful for the community – such as bookshelves, small community pantries, or park benches. These types of projects help students understand the different types of hand and power tools available to them.

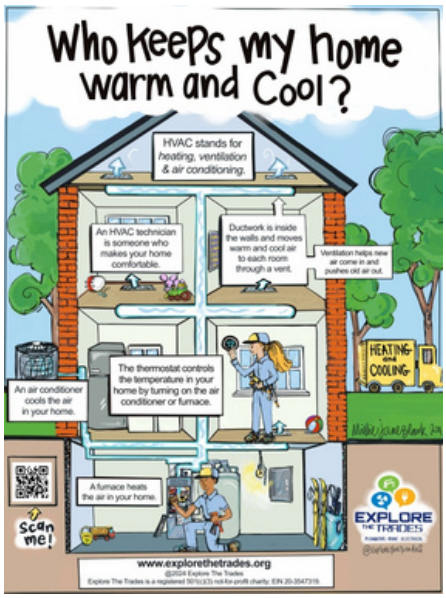
EXPLORE THE TRADES
PLUMBING • HVAC • ELECTRICAL

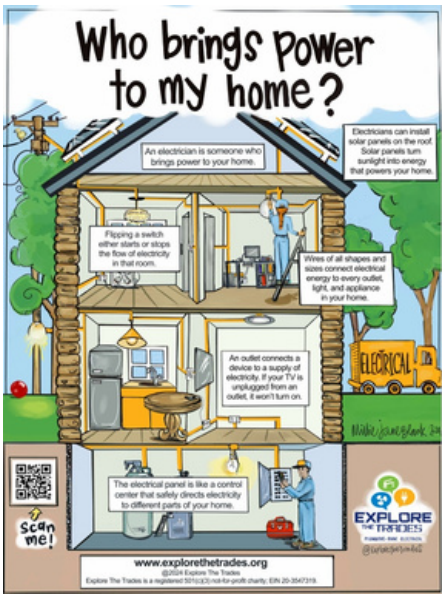
Kids Poster Series

To prepare future generations to step in and follow in the footsteps of retiring technicians, Explore The Trades created illustrations for ages five-11 that showcase how skilled tradespeople keep our lights on, our water clean, and our homes comfortable.

These educational posters provide early exposure to skilled trade jobs through visually appealing, elementary-friendly content to spark curiosity and create a positive perception of trade careers.

Click here to access a downloadable version of a kit or scan the QR code to request yours today!





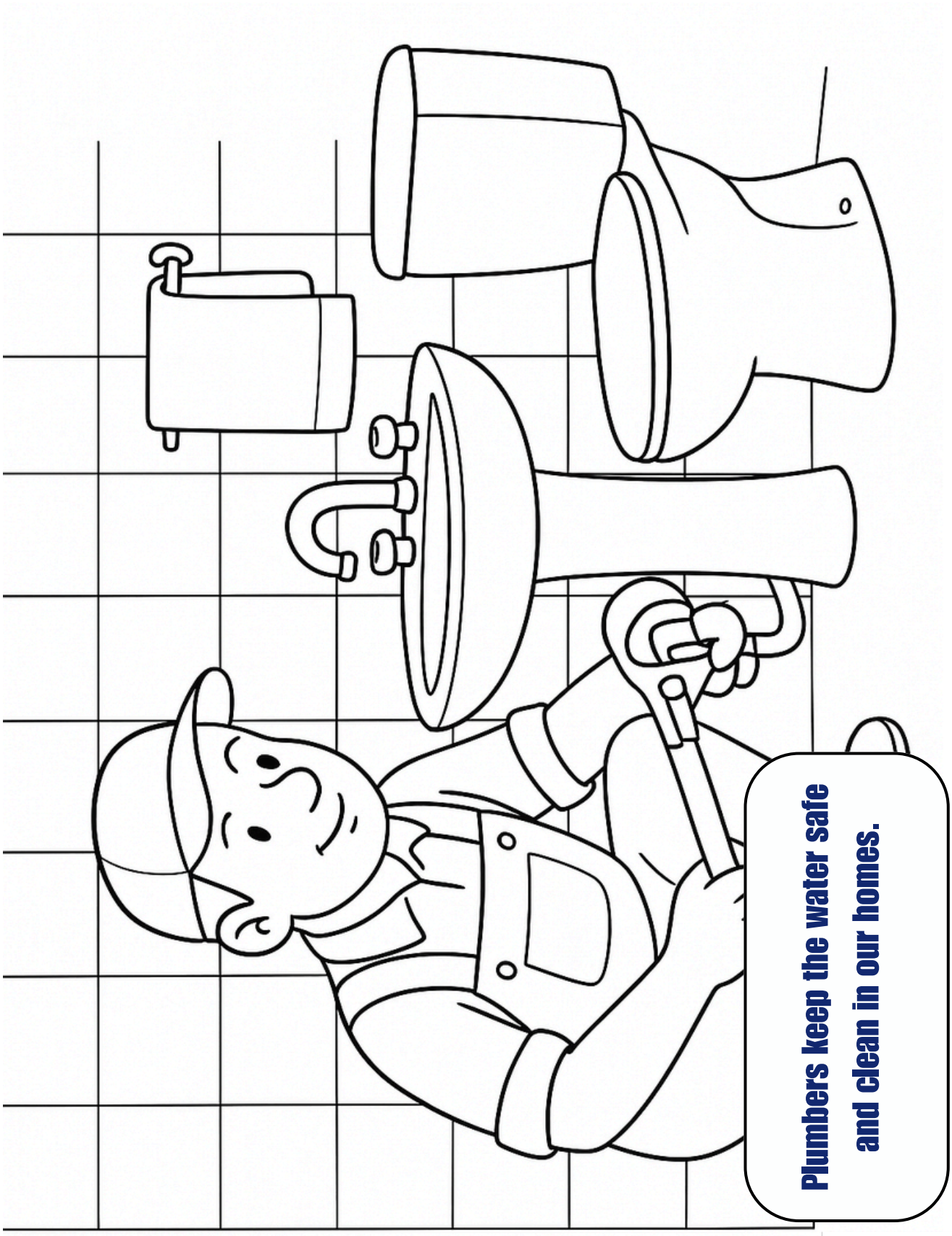
EXPLORE THE TRADES
PLUMBING • HVAC • ELECTRICAL

Electricians bring power to our buildings so we can turn the lights on.

EXPLORE THE TRADES
PLUMBING • HVAC • ELECTRICAL

explorethetrades.org

Want to learn more about the skilled trades? Scan the QR code!



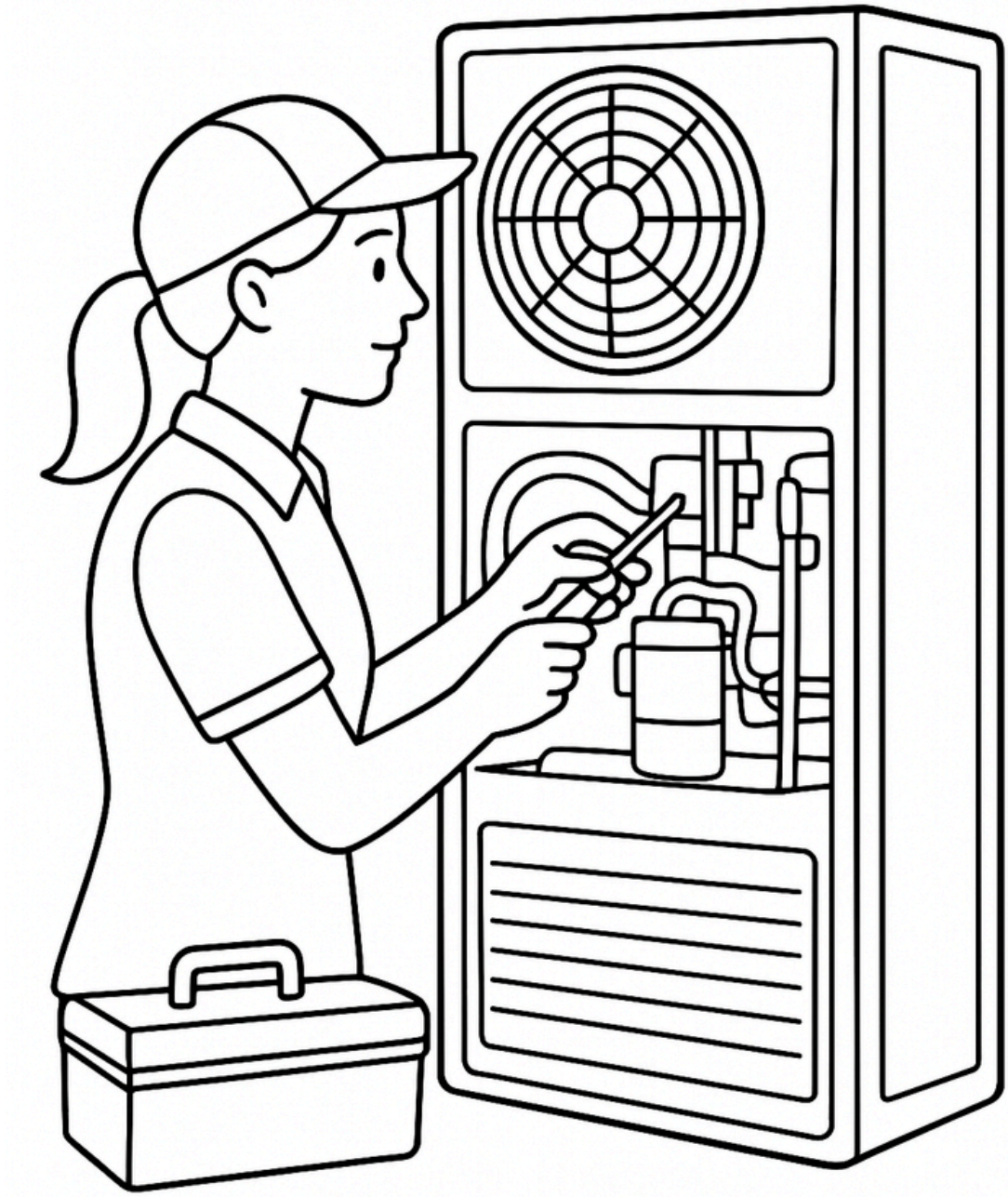
Plumbers keep the water safe and clean in our homes.

EXPLORE THE TRADES
PLUMBING • HVAC • ELECTRICAL

explorethetrades.org

Want to learn more about the skilled trades? Scan the QR code!

HVAC technicians keep buildings comfortable by providing heat in the winter, and cool air in the summer.



EXPLORE THE TRADES
PLUMBING • HVAC • ELECTRICAL

explorethetrades.org

Want to learn more about the skilled trades? Scan the QR code!

Explore The Trades Word Search

Answer the fill in the blanks below, then find the answers in the word search above:

1. Plumbers are trades people that work to give us clean water.
2. A student learning the trades is usually called an apprentice.
3. HVAC technicians make sure our homes stay warm in the winter.
4. Electricians use electricity to bring light into our homes.
5. Trades people work with tools to do their jobs.

EXPLORE THE TRADES
PLUMBING • HVAC • ELECTRICAL

explorethetrades.org

Want to learn more about the skilled trades? Scan the QR code!

Explore The Trades Word Search

E F X U Y I J J B G F R M F M
Q Y F I C V B U B T R R Q B V
Z E Z F J W I E F O T W W H E
K H V N W Z X U T O E P Q W X
B M W A V L U G M L L J O W D
H B M L I G H T A S G N F K E
M I M F S X S H C B B X P D O
I L M L P Y T P L U M B E R S
W M T W I N T E R W T X H W Q
E Q O R W Q G O B V X L R C B
W I I Q J U K R Z M Y G E U K
P K H I F A P P R E N T I C E
F H E U H I Z U Y C P B U T B
X O L M M W G D R O R J U T R
I P R I Y T I M X K L K C R V

Answer the fill in the blanks below, then find the answers in the word search above:

1. _____ are trades people that work to give us clean water.
2. A student learning the trades is usually called an _____
3. HVAC technicians make sure our homes stay warm in the _____.
4. Electricians use electricity to bring _____ into our homes.
5. Trades people work with _____ to do their jobs.

EXPLORE THE TRADES
PLUMBING • HVAC • ELECTRICAL

explorethetrades.org

Want to learn more about the skilled trades? Scan the QR code!

Elementary Next Steps Checklist

Students are encouraged to take home the following checklist to continue the conversation with their trusted adults about future career options in the skilled trades.

Learn & Explore

- Name one job where people fix or build things
- Learn one tool and what it is used for
- Learn one safety rule workers follow

Try It At Home

- Help build or fix something with an adult
- Practice measuring something
- Take something apart with an adult and look at how it works

Talk About It

- Tell someone what I learned about the trades
- Ask an adult how they fix things at home
- Share your favorite part of today

Create & Imagine

- Draw a picture of myself fixing or building something
- Design my own tool or machine
- Pretend to be a helper or technician

Build Good Habits

- Practice following instructions
- Work as part of a team
- Try again when something was tricky

EXPLORE THE TRADES
PLUMBING • HVAC • ELECTRICAL

“The Trades Are Everywhere” Scavenger Hunt

Can you find at least 3 items from each trade below?

Plumbing

- ☐ Sink with running water
- ☐ Toilet
- ☐ Drinking fountain
- ☐ Ice machine
- ☐ Emergency eyewash station

Electrical

- ☐ Light switch
- ☐ Electrical outlet
- ☐ Parking lot light
- ☐ Exit sign
- ☐ Classroom light

HVAC

- ☐ Thermostat
- ☐ Air vent or return
- ☐ Overhead ductwork
- ☐ Furnace
- ☐ Ceiling fan

- Which item did you notice that you never thought about before?
- Which trade showed up the most around you?
- What would be the biggest problem if trades workers disappeared for one day?

EXPLORE THE TRADES
PLUMBING • HVAC • ELECTRICAL

explorethetrades.org

Want to learn more about the skilled trades? Scan the QR code!

Middle School Next Steps Checklist

Students are encouraged to take home the following checklist to continue the conversation with their trusted adults about future career options in the skilled trades.

Learn & Explore

- Research if your high school offers any sort of trades classes.
- Compare the different trades daily life, then make a pros & cons list
- Walk down the tool aisle at the store and ask questions

Try It At Home

- Help an adult change an air filter, light bulb, or water softener salt
- Safely identify (with an adult) the shut-off for water or power and explain why it matters
- Use a level to determine if something is straight

Talk About It

- Have a conversation with a tradesperson in the community
- Share one thing you learned about the trades
- Ask questions about how things are made or work

Create & Imagine

- Design a tool that could help solve a problem at home or school
- Sketch a work truck and explain why each item matters

Build Good Habits

- Clean up and organize a space after completing a project
- Pay attention to safety signs and rules in everyday places
- Practice introducing yourself confidently to new people

EXPLORE THE TRADES
PLUMBING • HVAC • ELECTRICAL

Careers Beyond the Wrench

Customer Experience

Call Center professionals answer customer calls, schedule service appointments, and ensure customers are informed during the service call.

Dispatch

Dispatch professionals connect technicians to their assigned service calls, making sure the right technician gets to the right home at the right time.

Marketing

Marketing manages the company's brand story by creating ads, social media, and messages that generate customer leads and keep the service schedule full.

Human Resources

Human Resources manages the recruiting and retention process for the company and ensures team members feel supported and successful at work.

Accounting

Accounting roles manage the company's finances by tracking income, expenses, payroll, and budgets to keep the business running smoothly.

Sales

Sales professionals partner with technicians to help customers upgrade outdated home equipment by identifying problems and recommending the right solutions.

Warehouse

Warehouse team members support the business by managing inventory, ensuring parts and materials are prepared for future jobs, and organizing stock to increase efficiency and operations.

EXPLORE THE TRADES
PLUMBING • HVAC • ELECTRICAL

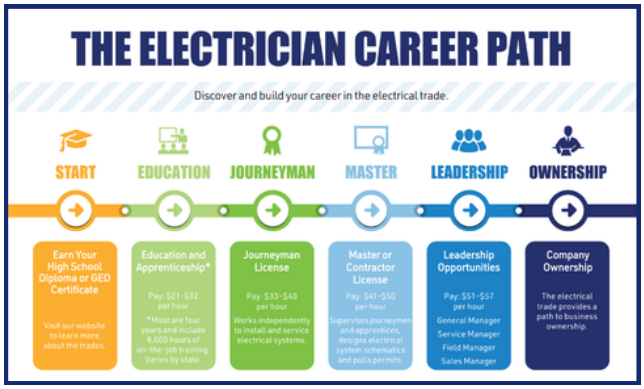
Career Paths

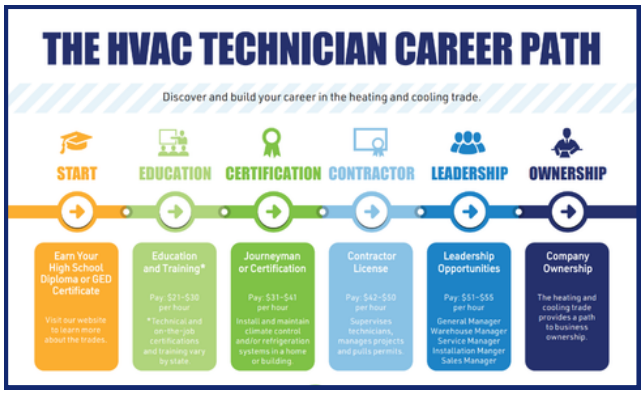
What do career paths for skilled trades look like?

Defining a career path for a student encompasses many details, from an introductory explanation of the role itself to the skills needed to be successful. Giving students the next steps on how they can get started after school is an incredible way to open the door for them to get into the skilled trades.

How do I learn more about each of these career paths?

Click each of the career paths below to visit our website and explore more about the careers in the skilled trades.





These resources are also available in Spanish!

Click here to access a downloadable version or scan the QR code to request yours today!

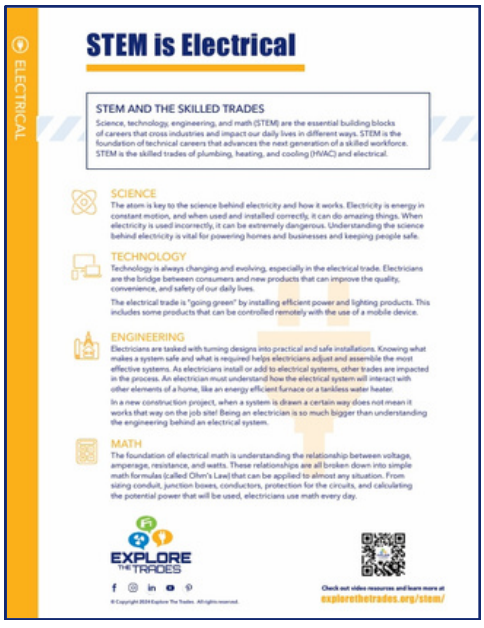
EXPLORE THE TRADES
PLUMBING • HVAC • ELECTRICAL

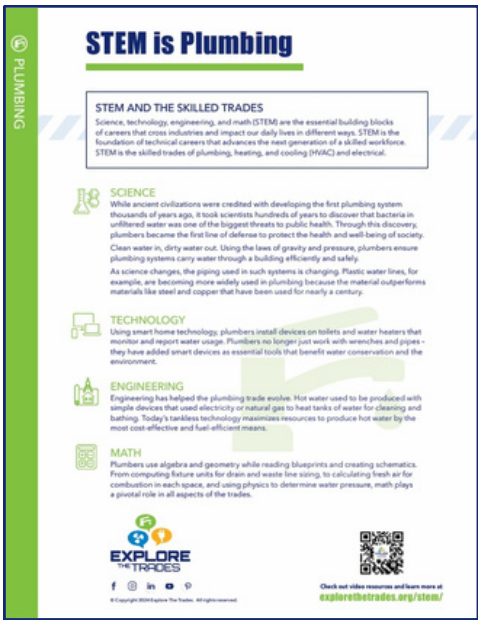
STEM In The Skilled Trades

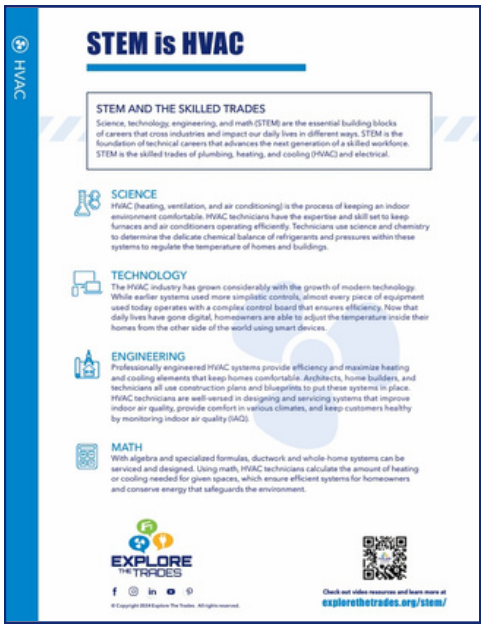
What is STEM and how does it relate to the skilled trades?

Science, technology, engineering and math (STEM) are the essential building blocks of careers that cross industries and impact our daily lives in different ways. STEM is the foundation of technical careers that propels our future workforce forward to stability, career growth opportunities and success. STEM is the skilled trades of plumbing, heating and cooling (HVAC) and electrical.

Click here to learn more and watch our videos about STEM in electrical, HVAC, and plumbing.







These resources are also available in Spanish! Click here to view them on our website.

EXPLORE THE TRADES
PLUMBING • HVAC • ELECTRICAL

High School Next Steps Checklist

Students are encouraged to take home the following checklist to continue the conversation with their trusted adults about future career options in the skilled trades.

Learn & Explore

- Research one trade & identify the training required, starting pay, and growth opportunities
- Compare two career paths (college vs. trades or two different trades) and list one pro/con for each
- Identify one skill used in the trades that also applies to everyday life or other careers

Try It At Home

- Organize your home tools/ tool bag (with an adult)
- With an adult, fix a door that sticks or won't close properly
- Recaulk a sink, tub, or shower (with an adult)

Create & Imagine

- Create a mock business name, logo, and service list for a trade you're interested in
- Sketch a small project you'd like to build or improve and list the tools needed

Talk About It

- Discuss a real repair/project in your home and why it mattered
- Talk about how you would fix something you notice is broken
- Talk with your guidance counselor, teachers, or parents about your interest in the trades

Build Good Habits

- Ask more "how" questions
- Ask for feedback
- Find the answer if you don't know it

EXPLORE THE TRADES
PLUMBING • HVAC • ELECTRICAL

Resource Appendix

Check out these exciting resources by clicking the links below.

Contractor Resources

2025 Annual Impact Report

Career Discovery Event Guide

Five Steps To Recruiting The Next Generation

Ride and Decide - How To Guide

Educator and Student Resources

Apprenticeship Map

Match The Trades Activity

Resources Online Library

Skills Lab Equipment Grant

Trades Discovery Certificate

Women In The Trades

EXPLORE THE TRADES
PLUMBING • HVAC • ELECTRICAL