



Jobs that  
pay high  
wages



Careers with  
benefits and  
opportunities for  
advancement

# BUILD THEIR FUTURES: Ohio's Construction Industry

A practical guide for educators

Pathways that  
require little  
educational  
debt

**Ohio**



**NAPE**  
National Alliance for  
Partnerships in Equity  
Education Foundation

The construction industry in Ohio offers many great jobs that pay well, are fulfilling, and provide terrific benefits. Opportunities abound, yet many students and their families aren't aware of them. With this toolkit, educators can increase awareness.

➔ In particular, women,<sup>1</sup> people of color,<sup>2</sup> and people with disabilities<sup>3</sup> are still grossly underrepresented in construction and other high-skill, high-wage, and high-demand careers.

The word "construction" often conjures up images of burly men doing physical labor. In reality, this field has something for everyone. The construction industry includes jobs related to planning, designing, and building structures. A wide variety of people with different passions, skills, education, and training work together in the construction industry. **The purpose of this workbook is to dispel some of the myths around construction, introduce you to resources that students will find helpful, and provide specific lesson plans for use as a career exploration unit.** These lessons will guide students to identify and set career goals and create pathways to achieve them. The writing assignment at the end is aligned to the Ohio Learning Standards: Science/Technical and Social Studies Common Core Grades 6-12.

This workbook has a companion version for students and their families titled, "Build Your Future: Ohio's Construction Industry, a Workbook for Students and Their Families."

The National Alliance for Partnerships in Equity (NAPE), which produced this workbook through funding from the Ohio Department of Education Office of Career-Technical Education, is dedicated to ensuring that every student has full access to high-skill, high-wage, and high-demand career pathways and jobs. Our sole mission is to build educators' capacity to implement effective solutions to increase student access, educational equity, and workforce diversity. This workbook is designed to be a useful and informative resource for educators to help students apply academic skills to specific in-demand jobs and careers.



## ➔ Meet Monica.

Monica Betts attended a two-year electrical program at C-TEC of Licking County while in high school. In her senior year she secured a registered apprenticeship that led to full-time employment after she graduated.

"I am in an industry, a local [union], and with a contractor that want[s] me personally to succeed to my full potential. I am currently entering my third year of apprenticeship classes, and am immensely grateful to the institutions in place that have allowed me to pursue being a journeyman. I am earning an associate's [degree] through Columbus State Community College simultaneously, and at no expense to me.

Once I finish my apprenticeship, I also intend to continue my education, using our local [union]'s generous education fund to pursue a bachelor's in project management, and eventually, earn a degree in electrical engineering....I do not think any of this would have been possible without the pathway my local has created for me to do so, and especially not without acquiring insurmountable debt."

Monica

UNITED STATES

790,440

construction jobs added by 2024<sup>4</sup>

OHIO

>195,000

construction jobs currently<sup>5</sup>

OHIO

\$54,000

average income/year<sup>6</sup>

# Explore It!

## WHO IS SUITED FOR A JOB IN OHIO'S CONSTRUCTION INDUSTRY?

Construction projects require people with various interests and skills, so there are many opportunities for people to find their futures in construction. Learning a skilled trade, such as carpentry or welding, or acquiring the IT skills required for construction management or architecture, puts students on a career path where jobs are in-demand and growing. About 26 million (20 percent) of all jobs in the United States require a "high level of knowledge" in at least one STEM field.<sup>7</sup> Construction jobs are STEM-in-action. Because of growing demand, construction jobs

have a **great return on investment** with **competitive pay, terrific health benefits, reduced cost for postsecondary opportunities**, and plenty of **potential for advancement**. These educational pathways are affordable and accessible through high school programs, registered apprenticeships, employer-based training, and certificates and associate's degrees from many of the 23 community and technical colleges in Ohio. The stories and testimonials in this workbook highlight a variety of pathways and opportunities for students to jump start their careers in construction.

## What kinds of students might find a future in the construction industry?



STUDENTS WHO ENJOY working outside



STUDENTS WHO ENJOY working on a computer



STUDENTS WHO ENJOY drawing and designing



STUDENTS WHO WANT TO BEGIN careers after high school



STUDENTS WHO WANT TO GO TO college after high school



STUDENTS WHO ENJOY physical work

# Explore It! CONSTRUCTION MYTHS

## MYTH:

- ✘ Construction jobs are better suited for men.

## FACT:

- ✔ The industry is actively seeking women for construction jobs. In fact, the National Association of Women in Construction awards more than \$25,000 to female recipients in construction-related programs each year (<http://nawic.org>).

- ✘ The construction industry is best suited for students who do not want to attend college.

- ✔ Many jobs in construction are technical and require postsecondary training, but students can often start work while they finish their training. This training can take the form of registered apprenticeships, employer-based training, certificates, associate's degrees, and bachelor's degrees.<sup>8</sup>

- ✘ Construction jobs do not pay well.

- ✔ From skilled labor, such as plumbers and electricians, to management or IT jobs, such as construction management or geographic information systems (GIS), opportunities in construction provide family-sustaining, middle-class wages. They are also in demand, so wages are competitive.

Construction is a diverse industry, from the people who work in it, to the jobs they do, to the wages they earn.



OHIO  
**+ 42,000**  
 construction jobs by 2020<sup>9</sup>

UNITED STATES  
**\$25/hour**  
 average non-supervisor wage<sup>10</sup>

UNITED STATES  
**Ohio #2**  
 for registered apprenticeships<sup>11</sup>



## ➔ Meet Cammi.

Cammi Clement graduated from the Upper Valley Career Center's HVAC/R (Heating, Ventilation, Air Conditioning, and Refrigeration) program.

"My job search was a bit different than a lot of other high school students'. I didn't have to do a lot of searching. In fact, the employers came to me. I was offered a job shadow for Emerson Climate Technologies based in Sidney, Ohio.

After almost a year of working at Emerson, I was offered a full-time position as a buildup technician. They also offered to reimburse me for my college tuition. I can't even begin to explain the amount of weight that's been lifted off my shoulders."

# Plan It!

Ohio needs skilled workers, and the jobs below are in demand. Information is available at OhioMeansJobs ([ohiomeansjobs.com](http://ohiomeansjobs.com)) and BuildOhio.org and by searching "construction" at the Ohio Department of Education's website ([education.ohio.gov/](http://education.ohio.gov/)).

	Average Annual Job Openings	Median Annual Wage	Average Starting Wage	Education and Training
<b>Carpenters</b>	869	\$42,420	\$28,760	HS Diploma* and Apprenticeship
<b>Construction Managers</b>	523	\$78,480	\$49,680	Associate's or Bachelor's Degrees
<b>Heavy Equipment Operators</b>	456	\$44,510	\$32,560	HS Diploma and On-the-job Training
<b>Plumbers and Pipefitters</b>	409	\$48,990	\$31,900	HS Diploma and Apprenticeship
<b>Construction Laborers</b>	1242	\$36,520	Varies	HS Diploma and On-the-job Training
<b>Electricians</b>	746	\$49,660	\$33,470	HS Diploma and Apprenticeship

Source: OhioMeansJobs ([ohiomeansjobs.com](http://ohiomeansjobs.com))

\*High School (HS) Diploma or HS equivalency

# Find It!

Enrolling in two-year career and technical programs during high school not only equips your students with the academic and industry skills they need to be prepared, but also helps them earn industry credentials and college credit. Ohio even offers middle school programs to introduce students to industry pathways. For more information, talk with your school's counselor(s) or a recruiter from your local career center.

Career and technical education programs prepare students with the essential skills they need to be successful.

▶ **Continuous Learning**

Improving skills and knowledge

▶ **Decision Making**

Making a choice among options

▶ **Document Use**

Reading and interpreting documents to extract information

▶ **Job Task Planning and Organizing**

Working independently to plan and organize daily tasks

▶ **Numeracy**

Working with numbers to perform calculations

▶ **Oral Communication**

Conveying or exchanging information verbally

▶ **Problem Solving**

Coming up with solutions to challenges

▶ **Reading Text**

Reading documents of varying complexity

▶ **Significant Use of Memory**

Performing tasks that call upon greater memory use

▶ **Thinking Skills**

Making decisions, solving problems, planning and organizing tasks

▶ **Working with Others**

Interacting to get the job done

▶ **Writing**

Conveying ideas by writing text

Source: <http://www.careersinconstruction.ca/en/careers/essential-skills>

## ➔ Meet Bradley.

Bradley Shields is a student in the Construction Technologies program at Delaware Area Career Center. An honor roll student and baseball player, Bradley decided to take advantage of a career and technical program to jump start his career. While building a house in class, he learned not only carpentry but also general plumbing and electrical skills. While still in high school, he also earned his skid-steer loader (e.g. Bobcat®) license and certification on hand and power tool safety, and received training on the Hilti gun and forklift.

Bradley secured a job as a framer at a local construction company and plans to attend Hocking College where he can test out of courses based on what he has already learned in Construction Technologies. He expects to continue his education and earn his construction management degree in the next 5 years so that he can run his own crew or own his own framing company.

Bradley

# Pathways

Just as there are many different jobs for people with diverse interests and talents, there are many different pathways to prepare for a career in construction.

The graphic below shows pathways available to jobs in the Construction industry. You will notice large ranges in salaries, which exist because there are many opportunities for specialization and additional training and credentials. Construction jobs enable continual learning and advancement in the industry.

## Middle School Career and Technical Programs

Many middle schools are now offering career and technical education (CTE) programs. Look for Structural Systems; Mechanical, Electrical and Plumbing; Construction Design and Management; and Project Lead the Way.

## High School Career and Technical Programs

Career Centers or Joint Vocational Centers (JVS) offer programs for high school students in which they earn college credit, industry credentials, and/or secure registered apprenticeships to prepare for a career in the construction industry.

### Multiple Postsecondary Options

Registered apprenticeships for skilled trades (3-5 years)

CTE programs at community colleges (1-3 years)

College/university bachelor's degrees (4-5 years)

Skilled trade jobs (apprenticeship and journey person)

Salaries from **\$29,000-\$88,000**. These jobs are in high demand in Ohio.

Ohio's 23 community colleges offer two-year programs, in which your students can earn associate's degrees and key credentials to prepare for jobs such as construction drafting, inspection, or management. They can also become certified in skilled trades, such as HVAC or electrical. Other jobs, such as architecture or civil engineering, may require a four-year degree.

Design and engineering jobs (2-4 years) offer salaries from **\$40,000-\$128,000** and faster tracks to upper management.

Management and Administrative jobs (2-5 years) offer salaries from **\$30,000-\$180,000** with a large variety of possible careers.

# Apprenticeships

Ohio boasts the second largest registered apprenticeship system in the United States<sup>12</sup> with 20,000 young Ohioans learning on-the-job training under the watchful eye of a master craftsworker, and getting classroom-related technical education in which the theory behind the practice is learned. Apprentices in registered programs are paid while they learn necessary skills, and they enjoy benefits such as healthcare and retirement plans. These apprentices typically make 75-80 percent of a journeyperson's income, and they receive raises as they develop additional skills. In the evenings, they attend classes at training or career centers or community colleges. Several programs offer college credit for the coursework or even certificates or degrees for apprenticeship completers.<sup>13</sup> For more information on Ohio Registered Apprenticeships visit <http://jfs.ohio.gov/apprenticeship/index.stm>

## Conclusion and Next Steps

Construction jobs in Ohio hold great promise for all Ohioans. **Educators play an influential role in helping students define and pave their future pathways, and construction in Ohio is an industry well suited for many of your students.** However, it is also a misunderstood industry, because students may use a narrow lens when they define the construction industry, and they may think only of unskilled labor when they visualize construction jobs. In reality, the industry has something for everyone. It requires many specialized skills, and it has a promising job outlook in Ohio. You can help connect your students to jobs that pay well, offer good benefits and opportunities for advancement, and involve rewarding work. This workbook and the accompanying student version are designed to provide a realistic view of the diversity and opportunity in the construction industry so that more students will take a deeper look. Educators can use the lessons that follow to help students explore, plan, find, and fund their futures.

## Lesson Plans

The enclosed unit plan provides a series of lessons with activities to inform students about the opportunities in Ohio's construction industry. The lessons can become part of an overall career exploration unit, or they can be included as part of a research unit. The student and educator workbooks, and accompanying lessons in this series, are meant to dispel common myths about construction and provide vital information to help students and their families make informed choices about their future education and career plans.

The lessons in this workbook are aligned to the Science/Technical and Social Studies Common Core Grades 6-12 standards. The lessons are divided by the section titles in this workbook—Explore It!, Plan It!, and Find It!—and they provide suggested time frames and ideas about facilitation. These activities were designed to broaden and deepen the information and learning from Build Your Future: Ohio's Construction Industry, a Workbook for Students and Their Families, which can also be accessed from the Ohio Department of Education website: [Education.ohio.gov](http://Education.ohio.gov).

# Explore it!



## Lesson Plan One

**Audience:** Middle or high school students in any academic course

**Time needed:** Day 1 takes approximately 30 minutes and does not require access to technology. Day 2 takes an entire class period (45-60 minutes) and requires individual access to technology.

**Overview:** This lesson exposes students to Ohio's construction industry and introduces them to a student workbook and online state resources so that they can explore information about careers, training and education, and wages in Ohio's industries. We recommend dividing the lesson into two days. Suggestions for varying the lesson based on access to technology are also provided.

### Guiding Questions:

- What kinds of jobs exist in the construction industry?
- What opportunities in the construction industry exist for me, and what training or education would I need?
- What wage do I need to support my lifestyle choices, and which jobs would provide that wage?

**Preparation:** Arrange for post-it notes or small pieces of scrap paper, poster/flipchart paper, copies of *Build Your Future: Ohio's Construction Industry, a Workbook for Students and Their Families* for each student, and access to computers with internet. To complete the career inventory, each student will need a computer.\* You may want to divide the lesson into two parts. That way the collaborative portion (steps 1-4) can be done in a space where students can sit in groups, and the computer portion can be done individually in a lab.

### Instructions:

#### Day 1: 30 minutes

1. Give students 3 minutes to write the jobs they associate with construction, one per post-it note or piece of scrap paper.
2. In small groups, ask them to sort the jobs into similar piles. Let them decide how to label the piles. Give each group a piece of poster/flipchart paper, and ask students to arrange and tape their scraps of paper or post-it notes in a way that clearly shows the job groupings. Ask them to create and explain a classifying structure.\*\* Give them 8-10 minutes to complete this activity and ask them to hang their posters around the room so that other students can see their work. It is ok if they are not completely finished, because the purpose is to get them to consider how they think about construction jobs.
3. Have students look at the posters and then conduct a 10-minute discussion on the ways the groups structured the classification of these jobs. Some might say they considered the training or education necessary for the job. Some might have used projected income. Look for similarities in the way they approached the classification. Refer to the myths in this workbook, and challenge the way that students conceptualized the industry based on those myths.
4. Pass out *Build Your Future: Ohio's Construction Industry, a Workbook for Students and Their Families* (or students can access it online). Have students do a 5-minute reading-around-the-text, a pre-reading strategy used to preview text. Below are the steps to facilitating this process, which can improve students' skills in reading across the curriculum.
  - a. Have students look at pictures and captions first. Ask: What inferences or predictions can they make about the content in the workbook?

(continued on next page)

\* You may need to schedule a computer lab at your school.

\*\* This process could be connected to previous lessons on classification structures, such as plants and animals or matter and non-matter. In that case, students could be asked to create and explain their classifying structure.

# Explore it!



## Lesson Plan One

### Day 1 (continued)

- b. Have students look at the graphics or charts. Ask: What types of information do the graphics provide? What do the graphics tell me about the types of information that will be in this workbook?
  - c. Have students look for indications of big ideas: words or headings in bold type or in different colors. Ask: Do these words give any clues about the subject or main idea?
  - d. Have students read the first paragraph of the text (introduction) and the last paragraph (conclusion). Ask: What do you think is the purpose of the workbook? Based on that purpose, what are the key pieces of information you are going to pay attention to during your reading?
5. Have students review the contents of the workbook as homework.

### Day 2: 45-60 minutes

1. Open the lesson by reminding students of the way they classified construction jobs and what they learned about the industry in the previous activity. Introduce the idea of a career cluster inventory as a survey that can help them target their career aspirations based on their interests and aptitudes. Remark that the survey may uncover a good match for them in industries they never considered, such as construction. They should keep an open mind.
2. Have students visit OhioMeansJobs (OhioMeansJobs.com) to complete the career cluster inventory under the *Explore It* tab (click on Individuals; K-12 Student). When they are finished, have them record their results on a class chart so that you can see the distribution of interests in the class. Option: You could have students complete the inventory as homework after Day 1 if you do not have access to a device for each student. You could then open this lesson by having them share their results. Please note that you will need to ensure that every student has access to the internet to complete this assignment.
3. Direct students to the budget calculator at OhioMeansJobs.com (click on link below the landing page) to figure out how much money they will need to earn to support themselves. By answering key questions about their interests and lifestyles, students learn the target salary they would need to be financially stable. This target salary can help them to select the right career in construction. Option: This could also be completed as homework if you do not have access to a device for each student and every student has access to the internet outside of class.
4. Individually or in groups (depending on access to technology), have students explore OhioMeansJobs.com and BuildOhio.org to gather information about various careers in the construction industry that might match their interests and salary requirements. If you are asking them to explore in groups, you might use the chart from step 2 to group them strategically.
5. Ask students to select 2-3 jobs in the construction industry that they want to explore further, and have them justify their choices. Using OhioMeansJobs.com and BuildOhio.org as their sources, ask students to create a table like the one below with information about each job they selected. If they do not finish the table, have them complete it as homework.

Jobs	Tasks I would do	Tools and technology I would use	Knowledge and education I would need	Skills, abilities, and training I would need	Credentials or training certificates I would need	Average wage	Job openings in Ohio
1.							
2.							
3.							

# Plan it!



## Lesson Plan Two

**Audience:** Middle or high school students in any academic course

**Time needed:** 20 minutes

**Overview:** Learning a skilled trade, such as carpentry or welding, or studying the IT skills required for construction management or architecture, puts students on a career path where jobs are in-demand and growing. As of 2011, 26 million U.S. jobs—20 percent of all jobs—required a high level of knowledge in at least one STEM (science, technology, engineering, and math) field. Construction jobs are STEM-in-action; that is, architects’ and engineers’ designs come to life through the work of skilled laborers and technicians. Many people believe that STEM jobs require a bachelor’s degree, but in reality there are many pathways to STEM jobs, including employer-based training, registered apprenticeships, certifications, and associate’s degrees. This lesson helps students make connections between their current knowledge of STEM and the construction industry. It can also help overcome stereotypes about construction jobs by showing the high level of skills and knowledge required to be successful in the construction field.

**Guiding Questions:**

- How are the jobs I identified in the previous lesson related to STEM jobs?
- What science and math would I need to know for my selected jobs?
- What kinds of technology and engineering would be related to my selected jobs?

**Preparation:** Make copies of the STEM table on the next page to distribute to your students

**Instructions:**

**Day 1: 30 minutes**

1. Review the jobs students selected to investigate in the last lesson, and create groups based on similar jobs. BuildOhio.org breaks down construction jobs into the following categories, which you might use as well: Skilled trades, Administrative, Management, and Design/Engineering.
2. Share with students that construction is STEM-in-action and requires skills and knowledge in science, technology, engineering, and math. Share that 20 percent of all jobs in the United States, or about 26 million jobs, require a “high level of knowledge” in at least one STEM field, and construction is no different.
3. Ask students to look at each of the content areas in STEM. Have them work in groups to answer the prompts in the first row of the following table. Examples are provided.

(continued on next page)

# Plan it!



## Lesson Plan Two

SCIENCE	TECHNOLOGY	ENGINEERING	MATH
<p>Identify science content that students need to know to do the job. Have students list specific subjects and how they would apply what they know in that job.</p>	<p>Identify the tools and technology the job requires. Have students find apps on the web to help them learn more about using the tools. Have them list the tools and explain how the technology works using scientific or mathematic principles.</p>	<p>Identify the type of engineer who would be most closely associated with the job and what that engineer designs and works on. Students can explore the wide variety of engineering specialties and positions, such as structural engineer or mechanical or electrical engineering technicians.</p>	<p>Identify the mathematical concepts that a person in the job would need to know. Have students identify key formulas that people might use in the job.</p>
<p>Example: Welders need to know chemistry, because they need to know which metals will create a strong bond.</p>	<p>Example: An electrician might need to use a tool to determine electrical current strength. The student would explain how one measures an electrical current and how the tool uses the technology to do it quickly, easily, and safely. Another example: a drafter needs to know Computer Aided Design (CAD) and the other software involved in creating 3D drawings.</p>	<p>Example: A structural engineer might be needed to determine whether the foundation of a building is strong enough for an addition.</p>	<p>Example: Someone interested in construction management might need knowledge in finance and budgeting, which would include percentages and ratios. A contractor would use formulas for area and perimeter. An engineer might use calculus.</p>

# Find it!



## Lesson Plan Three

**Audience:** Middle or high school students in any academic course

**Time needed:** Four 45- to 60-minute class periods (could be facilitated individually or connected as part of a research and career exploration unit)

**Overview:** Preparing students for their futures requires both setting clear goals and establishing pathways to achieve them. The previous lessons have helped students define their career goals. Hopefully many of them are now considering options in the construction industry. The activities in this lesson are designed to help students build a career plan to achieve their goals. The sources we recommend are useful in all industries. Although we encourage students to explore the construction industry, this assignment could be useful to students with any career interests.

### Guiding Questions:

- What type of education and training will I need to reach my career goals?
- What educational pathways might be the best approach for me?
- What essential skills should I focus on developing as I prepare for my future?

**Preparation:** Invite a school counselor, recruiter from a local career center, or community college admissions representative to talk with your students about academic opportunities and pathways. Make copies of the Essential Skills on p.6 of this workbook. Consult *Five Ways That Pay Along the Way to the BA* (Georgetown Center for Education and the Workforce: <https://cew.georgetown.edu/cew-reports/career-and-technical-education/>) to learn about postsecondary pathways outside of a bachelor's degree to high-skill, high-wage, and high-demand careers. Note that Days 1 and 3 require computer access, but you can place students in groups if you do not have access to individual devices for each student.

### Instructions:

#### Day 1: What can I do now?

1. Invite a school counselor, recruiter from a career center, or community college admissions representative to talk with your students about academic opportunities and pathways. Ask your presenter(s) to prepare a 20-minute presentation with time for questions.
2. Using presentation handouts, course planning documents from your school, and the internet, ask students to list courses they need to take to graduate and additional courses, electives, or activities that would help them prepare for their career path.
3. In a column next to the anticipated coursework, have students identify the specific skills and academic content in each course that will directly relate to their chosen career option. Remind them to look back at the STEM table they completed, which identified some of the academic and technical skills they need to develop. Make sure they explore career and technical education courses as well.

#### Day 2: What essential skills can I work to develop?

1. Distribute the Essential Skills from p.6 (also found on p.5 of the student workbook) and ask students to rate themselves on each skill. Students can perform this activity individually or in groups. Have them identify the classes and activities, including academic courses, electives, extracurricular activities, and other opportunities your school, which that build these essential skills.
2. Do a gallery walk to gather students' responses. For a gallery walk, create one poster per essential skill. Give students 2 minutes at each poster to record their responses. If the response is already written, ask students to put a star next to it. This will allow you to see the frequency of the responses and to keep the poster a bit more organized and easy to interpret.
3. Conduct a discussion about the responses most often cited (based on the ones with the most stars) and discuss how these essential skills are worthwhile for any career.

# Find it!



## Lesson Plan Three

### Day 3: What do I do after high school?

1. Ask students to refer back to *Build Your Future: Ohio's Construction Industry, a Workbook for Students and Their Families* for additional information. Discuss the misconceptions that students have about postsecondary pathways.
2. Ask students to identify the postsecondary pathway that would lead to the career they chose or were assigned. This information is available for a wide variety of jobs at OhioMeansJobs.com and BuildOhio.org. To download a list of useful websites to help students explore and plan their futures in construction, do a keyword search "construction" at the Ohio Department of Education website (Education.ohio.gov). Career-related advocacy groups also educate students about opportunities to prepare for their dream job. For example, the National Coalition of Women of Color in Construction (<http://buildingbusinesscapacity.blogspot.com/>) advocates for women to have greater opportunity and voice in the construction industry.
3. As students are researching, remind them that not all jobs require, or even prefer, a college degree. In some cases, a college degree will have a very poor return on investment, because it is a credential not needed to compete for the job. It is important to help students choose the most sensible and affordable pathway to their future in construction. Remind students of any information related to education and job training pathways provided by the local career and technical center recruiter or school counselor provided. The student stories in the workbooks are also great illustrations of potential pathways.  
Optional addition: Distribute *Five Ways That Pay Along the Way to the BA* (Georgetown Center for Education and the Workforce: <https://cew.georgetown.edu/cew-reports/career-and-technical-education/>). Students can either complete this reading as homework or in class. NOTE: This reading could be used to inform questions that students might have for a recruiter, school counselor, or community college admissions representative. You might consider assigning it as pre-reading for the Day 1 lesson.
4. Have students take notes from their sources and write a persuasive essay about their identified pathway and why it is the best option for them.
5. Use the rubric on the following page to help you assess their arguments. This table contains the grade-level standards in Ohio's Learning Standards: Writing in the Content Areas 6-12. You can use this learning progression to evaluate and provide feedback on student work.

### Day 4: How do I finance this pathway?

1. Have students visit OhioMeansJobs.com and select Fund It! Here, they can access budget tools and information about financial aid and assistance programs. Fund It! connects students to organizations that provide financial aid, grants, and loans as well as Ohio-Based Employment Programs, including registered apprenticeship opportunities where they earn while they learn. Students can also search for scholarship opportunities tailored to their intended majors and interests. You might also suggest students look for advocacy and union organizations that offer scholarships and registered apprenticeships. For example, the National Association of Women in Construction awards more than \$25,000 to students in construction-related programs each year ([www.nawic.org](http://www.nawic.org)).
2. Many community and technical colleges in Ohio provide substantial scholarships to students who complete career and technical programs in high school and matriculate to the college during the fall following their graduation. Students are only eligible for these scholarships during their senior year. More information on these and other opportunities can be found at OhioHigherEd.org (click on Students; Pay for College).
3. Have students create a plan detailing how they will fund their postsecondary pathway.

# Find it!



## Lesson Plan Three

### Ohio Learning Standards: Science/Technical and Social Studies Common Core Grades 6-12

GRADES 6-8	GRADES 9-10	GRADES 11-12
<b>TEXT TYPES AND PURPOSES WRITE ARGUMENTS FOCUSED ON DISCIPLINE-SPECIFIC CONTENT*</b>		
Introduce claim(s) about a topic or issue, acknowledge and distinguish the claim(s) from alternate or opposing claims, and organize the reasons and evidence logically.	Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence.	Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.
Support claim(s) with logical reasoning and relevant, accurate data and evidence that demonstrate an understanding of the topic or text, using credible sources.	Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns.	Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases.
Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), counterclaims, reasons, and evidence.	Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.	Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.
Establish and maintain a formal style.	Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.	
Provide a concluding statement or section that follows from and supports the argument presented.		

\* Ohio Department of Education. (2014). Ohio's New Learning Standards: English Language Standards. Available at <https://education.ohio.gov/getattachment/Topics/Ohio-s-New-Learning-Standards/English/ELA-Standards.pdf.aspx>



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AEP (High Power Lines)  
Affiliated Construction Trades of Ohio (ACT)  
Allied Construction Industries (AGC)  
Ashland County West-Holmes Career Center  
Association of Builders & Contractors (ABC)  
Cleveland Construction, Inc.  
Columbus City Schools  
Construction Employers Association (CEA)  
Corna Kokosing Construction Company  
Eastland Career Center  
George J. Igel & Co., Inc.  
Governor's Office of Workforce Transformation  
Great Oaks Career Centers

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Kelchner Construction  
Laborers' District Council of Ohio  
Messer Construction  
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Ohio Carpenters Apprenticeship and Training  
Ohio Contractors Association (OCA)  
Division of Opportunity, Diversity and Inclusion  
Ohio Department of Education  
Ohio Department of Transportation  
Ohio Masonry Association  
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- <sup>1</sup> Bureau of Labor Statistics: (2015). Women in the labor force: A databook, BLS Reports: Report 1059. Available at <http://www.bls.gov/opub/reports/womens-databook/archive/women-in-the-labor-force-a-databook-2015.pdf>
- <sup>2</sup> Bureau of Labor Statistics (2015). Labor force characteristics by race and ethnicity, 2014. Report 1057. Available at <http://www.bls.gov/opub/reports/race-and-ethnicity/archive/labor-force-characteristics-by-race-and-ethnicity-2014.pdf>
- <sup>3</sup> Bureau of Labor Statistics (2016). Economic News Release: Persons with a Disability: Labor force characteristics summary. Available at <http://www.bls.gov/news.release/disabl.nr0.htm>
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- <sup>7</sup> Rothwell, J. (2013). The Hidden STEM Economy. Retrieved from <http://brookings.edu/research/the-hidden-stem-economy/>
- <sup>8</sup> Georgetown University's Center for Education and the Workforce has a very informative report on these pathways titled The Five Ways That Pay Along the Way to the BA. See <https://cew.georgetown.edu/cew-reports/career-and-technical-education/>.
- <sup>9</sup> Ohio Department of Jobs and Family Services. (2012). 2022 Ohio Job Outlook: Employment projections, p. 13. Retrieved from [http://ohiolmi.com/proj/Projections/Ohio\\_Job\\_Outlook\\_2012-2022.pdf](http://ohiolmi.com/proj/Projections/Ohio_Job_Outlook_2012-2022.pdf)
- <sup>10</sup> Average hourly and weekly earning of production and nonsupervisory employees. (2016). Retrieved from <http://www.bls.gov/news.release/empsit.t24.htm>
- <sup>11,12</sup> U.S. Department of Labor (10/1/15-6/30/16). Office of Apprenticeship Performance Score Card Report Fiscal Year: 2016 (as of Quarter 3).
- <sup>13</sup> Information provided by Steve Lipster, Director of the Electrical Trades Center, Columbus, Ohio, May 25, 2016.