

## Architecture Construction Communication & Transportation

### Exploring Construction Eighth Grade

**Course Number: 46.02600**

**Course Description:** This course will provide an exploratory foundation in construction. It is designed to be taught in a 9-week rotation in 45-minute daily classes. Standards should be taught in the order presented with the exception of Standards 1 and 7 being embedded standards with ongoing learning regarding employability skills, career investigation, and career-technical leadership opportunities. Through integrated instructional activities, students will have opportunities to apply employability skills and to research possible career options in the construction industry. They will also complete many hands-on activities to build a strong foundation of construction techniques/skills. Capstone projects should be incorporated at the completion of all standards as time allows. Students who successfully complete this course will be prepared for the following pathways upon entering high school: Construction-carpentry, masonry, electrical, and plumbing.

### Course Standard 1

#### ACCT-MSCONST8-1

#### **Demonstrate employability skills required by business and industry.**

The following elements should be integrated throughout the content of this course.

1.1 Communicate effectively through writing, speaking, listening, reading, and interpersonal abilities.

Person-to-Person Etiquette	Telephone and Email Etiquette	Communicating at Work	Listening
Interacting with Your Boss	Telephone Conversations	Improving Communication Skills	Reasons, Benefits, and Barriers
Interacting with Subordinates	Barriers to Phone conversations	Effective Oral Communication	Listening Strategies
Interacting with Co-workers	Making and Returning Calls	Effective Written Communication	Ways We Filter What We Hear
		Effective Nonverbal Skills	Developing a Listening Attitude
		Effective Word Use	Show You Are Listening
		Giving and Receiving Feedback	Asking Questions
			Obtaining Feedback
			Getting Others to Listen

Nonverbal Communication	Written Communication	Speaking	Applications and Effective Résumés
Communicating Nonverbally	Writing Documents	Using Language Carefully	Completing a Job Application
Reading Body Language and mixed Messages		One-on-One Conversations	Writing a Cover Letter

Matching Verbal and Nonverbal communication		Small Group Communication	Things to Include in a Résumé
Improving Nonverbal Indicators		Large Group Communication	Terms to Use in a Résumé
Nonverbal Feedback		Making Speeches	Organizing Your Résumé
Showing Confidence Nonverbally		Answering Questions	Writing an Electronic Résumé
Showing Assertiveness		Visual and Media Aids	
		Errors in Presentation	

1.2 Demonstrate creativity by asking challenging questions and applying innovative procedures and methods.

<b>Teamwork and Problem Solving</b>	<b>Meeting Etiquette</b>
Thinking Creatively	Preparation and Participation in Meetings
Taking Risks	Conducting Two-Person or Large Group Meetings
Building Team Communication	Inviting and Introducing Speakers
	Preparing Visual Aids

1.3 Exhibit critical thinking and problem-solving skills to locate, analyze and apply information in career planning and employment situations.

<b>Problem Solving</b>	<b>Customer Service</b>	<b>The Application Process</b>	<b>Interviewing Skills</b>	<b>Finding the Right Job</b>
Transferable Job Skills	Gaining Trust and Interacting with Customers	Providing Information, Accuracy and Double Checking	Preparing for an Interview	Locating Jobs and Networking
Becoming a Problem Solver	Learning and Giving Customers What They Want	Online Application Process	Questions to Ask in an Interview	Job Shopping Online
Identifying a Problem	Keeping Customers Coming Back	Following Up After Submitting an Application	Things to Include in a Career Portfolio	Job Search Websites
Becoming a Critical Thinker	Seeing the Customer's Point	Effective Résumés:	Traits Employers are Seeking	Staying Motivated to Search
	Selling Yourself and the Company	Matching Your Talents to a Job	Considerations Before Taking a Job	
		When a Résumé Should be Used		

1.4 Model work readiness traits required for success in the workplace including integrity, honesty, accountability, punctuality, time management, and respect for diversity.

<b>Workplace Ethics</b>	<b>Personal Characteristics</b>	<b>Employer Expectations</b>	<b>Business Etiquette</b>	<b>Communicating at Work</b>
Demonstrating Good Work Ethic	Demonstrating a Good Attitude	Behaviors Employers Expect	Language and Behavior	Handling Anger
Behaving Appropriately	Gaining and Showing Respect	Objectionable Behaviors	Keeping Information Confidential	Dealing with Difficult Coworkers
Maintaining Honesty	Demonstrating Responsibility	Establishing Credibility	Avoiding Gossip	Dealing with a Difficult Boss

Playing Fair	Showing Dependability	Demonstrating Your Skills	Appropriate Work Email	Dealing with Difficult Customers
Using Ethical Language	Being Courteous	Building Work Relationships	Cell Phone Etiquette	Dealing with Conflict
Showing Responsibility	Gaining Coworkers' Trust		Appropriate Work Texting	
Reducing Harassment	Persevering		Understanding Copyright	
Respecting Diversity	Handling Criticism		Social Networking	
Making Truthfulness a Habit	Showing Professionalism			

1.5 Apply the appropriate skill sets to be productive in a changing, technological, diverse workplace to be able to work independently and apply teamwork skills.

Expected Work Traits	Teamwork	Time Management
Demonstrating Responsibility	Teamwork Skills	Managing Time
Dealing with Information Overload	Reasons Companies Use Teams	Putting First Things First
Transferable Job Skills	Decisions Teams Make	Juggling Many Priorities
Managing Change	Team Responsibilities	Overcoming Procrastination
Adopting a New Technology	Problems That Affect Teams	Organizing Workspace and Tasks
Use Technology Ethically & Efficiently	Expressing Yourself on a Team	Staying Organized
Interact Appropriately in a Digital World	Giving and Receiving Constructive Criticism	Finding More Time
		Managing Projects
		Prioritizing Personal and Work Life

1.6 Present a professional image through appearance, behavior, and language.

On-the-Job Etiquette	Person-to-Person Etiquette	Communication Etiquette	Presenting Yourself
Using Professional Manners	Meeting Business Acquaintances	Creating a Good Impression	Looking Professional
Introducing People	Meeting People for the First Time	Keeping Phone Calls Professional	Dressing for Success
Appropriate Dress	Showing Politeness	Proper Use of Work Email	Showing a Professional Attitude
Behavior at Conventions		Proper Use of Cell Phone	Using Good Posture
Working in a Cubicle		Proper Use in Texting	Presenting Yourself to Associates
			Accepting Criticism
			Demonstrating Leadership

## Course Standard 2

### ACCT-MSCONST8-2

**Demonstrate the proper use of power tools (Based upon competency of each student)**

**Demonstrate competent use in 3 of the 5 saws listed below**

- 2.1 Demonstrate the proper and safe use of the compound Miter saw
- 2.2 Demonstrate the proper and safe use of the saber/jig saw and/or scroll saw
- 2.3 Demonstrate the proper and safe use of the band saw
- 2.4 Demonstrate the proper and safe use of the table saw
- 2.5 Demonstrate the proper and safe use of the circular saw (optional)

Sample Tasks:

Demonstrate the various saws and assess competencies

Cut out a take home project on the band saw and/or jig saw and/or scroll saw

Rip wood stock to proper width for picture frame on table saw

Cut out picture frame miters on the compound Miter saw

Cut wood stock to length utilizing the circular saw (optional)

Utilize the chalk line to strike a line and cut with the circular saw

## Course Standard 3

### ACCT-MSCONST8-3

**Demonstrate the proper use of fastening power tools**

- 3.1 Demonstrate the knowledge of a keyed chuck and keyless chuck on a power drill
- 3.2 Demonstrate the proper selection and use of bits (twist bit, Forstner bit, spade bit, brad point bit, and counter sink bit).
- 3.3 Demonstrate the proper selection of driver bits (Phillips, Torx, and square drive)
- 3.4 Demonstrate the proper set up and use of the drill clutching, camming, and proper chucking of the bit(s)
- 3.5 Demonstrate the proper selection and proper identification between drill and impact drivers
- 3.6 Demonstrate the proper knowledge of the drill and impact drivers anatomy (trigger, speed switch, directional switch, clutch, chuck, drill mode, etc.

## Course Standard 4

### ACCT-MSCONST8-4

**Demonstrate the proper and safe use of pneumatic fastening tools**

- 4.1 Demonstrate proper safety procedures for pneumatic tools and compressors
- 4.2 Identify the various types of air Nailers (brad Nailer, framing Nailer, stapler, etc.)
- 4.3 Identify the proper use of the compressor settings, maintenance, and storage (regulator, drain plug, hose connections, etc.)

Sample Tasks:

Set up compressor with proper PSI settings, hose installation, review hazards of compressed air devices and hoses.

Load proper fasteners into pneumatic fastening tools (brads, strip nails, coil nails, etc.)

Demonstrate proper and safe areas for pneumatic nails to be installed

Demonstrate proper pneumatic tool alignment on stock to avoid blowout of fasteners

## Course Standard 5

### ACCT-MSCONST8-5

#### Demonstrate the safe and proper use of sanders and abrasives

- 5.1 Demonstrate the proper and safe use of the disc, belt, and drum sander (table mounted)
- 5.2 Demonstrate the proper and safe use of the handheld belt sander
- 5.3 Demonstrate the proper and safe use of the vibrating/palm sander
- 5.4 Demonstrate the proper grit selection of the sandpaper to be used

#### Sample Tasks:

Demonstrate the use of sanding equipment to remove tool marks, burn marks, and finish sanding for project

## Course Standard 6

### ACCT-MSCONST8-6

#### Demonstrate proper and safe use of the measuring tape and safety guidelines

- 6.1 Demonstrate proficient use of the measuring tape to  $1/8^{\text{th}}$  of an inch
- 6.2 Demonstrate proficient use of the measuring tape to square structure or layout with equal diagonals and/or the 3,4,5 rule.
- 6.3 Demonstrate the knowledge of how to convert fractions to decimals and decimals to fractions
- 6.4 Demonstrate the knowledge of proper safety equipment for personal use (Don safety glasses, face shield, gloves, hard hat, respirator, etc.)
- 6.5 Demonstrate the knowledge of shop safety. (Such as masks, shop vac, and filter usage for dust collection systems)

#### Sample Tasks:

Utilize the measuring tape and chalk line to layout a square on the floor  
Utilize the ruler game to teach proficient use of the measuring tape quickly  
Utilize the tape measure for warm up/bell ringers at beginning of class and at end

## Course Standard 7

### ACCT-MSCONST8-7

#### Examine how SkillsUSA is a co-curricular part of career and technical education through leadership development, school and community service projects, and competitive events.

- 7.1 Explain the purpose, mission, objectives, motto, colors, official dress and other distinguishing characteristics of SkillsUSA.
- 7.2 Explain how participation in SkillsUSA can promote lifelong responsibility for community service, professional growth and development.
- 7.3 Explore the impact and opportunities that SkillsUSA can develop to bring business and industry together with education in a positive working relationship through innovative leadership and career development programs.
- 7.4 Explore the local, state, and national opportunities available to students through participation in SkillsUSA, including but not limited to conferences, competitions, community service, philanthropy, and other SkillsUSA activities.