

MASONRY/CONCRETE FUNDAMENTALS

Youth Apprenticeship

MASONRY/CONCRETE FUNDAMENTALS

Masonry/Concrete Fundamentals youth apprentices gain skills related to the use of construction safety, drawings and blueprints, materials, tools, materials, and general worksite procedures related to the masonry and concrete fields. Apprentices must adhere to industry safety and security standards.

Length of Apprenticeship: One or two Years

COMPETENCIES

Year 1: Masonry/Concrete Fundamentals youth apprentices must complete a total of 15 Masonry/Concrete Fundamentals Competencies and a minimum of 1 Masonry/Concrete Specialty Competency. Employers can substitute 1 competency with another occupationally appropriate skill. That skill should be added to the competency list for assessment. Year 1 competencies are completed with employer guidance. Youth apprentices must also complete the following during the first year:

Youth Apprentices must also complete the following during Year 1:

- □ First Aid Certification
- OSHA 10 or 30

Year 2: Masonry/Concrete Fundamentals youth apprentices must complete the **fifteen** Masonry/Concrete Fundamentals Competencies with minimal supervision and a minimum of 2 different Masonry/Concrete Specialty Competencies than the first year. A specialty competency may be repeated only if the type of construction (residential or commercial) differs from the first year. Employers can substitute 1 competency with another occupationally appropriate skill. That skill should be added to the competency list for assessment. Year 2 competencies are completed with minimal employer guidance.

Select construction type and circle the applicable year:

- □ Residential completed during Year: One and/or Two
- □ Commercial completed during Year: One and/or Two

Note that where necessary, skills can be simulated.

Masonry/Concrete Fundamentals Competencies		Masonry/Concrete Specialty Competencies
1.	Follow safety procedures	16. Assist with cutting brick and block
2.	Read construction drawings and plans	17. Assist with masonry and installation
3.	Interpret symbols and procedures	techniques
4.	Contribute to a job task plan	18. Lay masonry units to job specification
5.	Work as a member of a construction team	 Assist with selecting the correct types of materials for the job
6.	Prepare work area for construction	20. Perform volume estimates for material
7.	Select construction materials	quantity requirements

8.	Use hand and light duty tools
9.	Use power tools and equipment
10). Perform materials handling
11	. Install materials per job specifications
12	. Perform construction measurements
13	. Maintain a clean and safe work area
14	. Clean up job site
15	 Practice quality craftsmanship

REGISTERED APPRENTICESHIP BRIDGING OPPORTUNITIES

Some of the related instruction courses can bridge into the following registered apprenticeship:

• Cement Mason/Concrete Finisher

POST-SECONDARY PATHWAY OPPORTUNITIES

There are several post-secondary pathway opportunities in this area. Following is partial list.

• Carpentry



MASONRY/CONCRETE FUNDAMENTALS

Youth Apprenticeship ON-THE-JOB LEARNING PERFORMANCE STANDARDS GUIDE

YOUTH APPRENTICE INFORMATION

Youth Apprentice Name	
YA Coordinator	YA Consortium
School District	High School Graduation Date

REQUIREMENTS

One Year

Youth Apprentices completing a one-year apprenticeship must complete ALL the items listed below. Check completed areas.

- \Box Competency checklist
- Employability Skills checklist (in this job book) or the DPI Employability Skills Certificate
- □ Related instruction equal to 1 high school credit or at least 3 college credits
- \Box Minimum of 450 work hours

Two Year

Youth Apprentices completing a two-year apprenticeship must complete ALL the items listed below. Check completed areas.

- \Box Competency checklist
- Employability Skills checklist (in this job book) or the DPI Employability Skills Certificate each year
- □ Related instruction equal to 2 high school credit or at least 6 college credits
- □ Minimum of 900 work hours

HOURS

Record the hours the youth apprentice worked.

Total Hours Employed	Company Name	Telephone Number

CAREER PREPARATION

Youth apprentices must complete **<u>one</u>** of the following during Youth Apprenticeship participation:

 \Box 1. Student is participating in a local or regional career pathway*.

Identify the pathway below:

For more information contact the <u>Wisconsin Department of Public Instruction</u>. Additional help may be found on the WI DPI <u>Wisconsin Pathways – Regional Career Pathways</u> and <u>DPI Career</u> <u>Clusters and Pathways</u> web pages.

*Local and Regional career pathways as defined by the WI DPI means that a student is participating in or has completed at least one CTE class in a cluster pathway sequence and has completed at least one of the other career pathway components: instructional related course, work-based learning, dual college credit, and/or career and technical student organization.

 \Box 2. Student has completed one of the following certificates during their YA program or possess current certification earned previously.

A copy of the certificate must be uploaded with the completed checklist. Select the certificate from the list below.

- □ Leadership Certificate (DPI)
- \Box OSHA 10 or 30
- Commercial Driver's License (CDL) Must be 18 years old
- □ Skills USA
- □ Other certificates identified by the Career and Technical Education (CTE) Approved Certifications List related to this occupational field (or related to this occupation) <u>dwd.wisconsin.gov/det/cteincentive/</u>(YA certificates excluded)

Title of Certification:

□ 3. Student is participating in a <u>Dual Enrollment Course</u> connected to any postsecondary education provider including UW System, Wisconsin Association of Independent Colleges and Universities (WAICU), and any of the 16 Wisconsin Technical Colleges (WTCS).

College Name:

College Course Title:

Course Number:

For more information on Dual Enrollment opportunities, please click on one of the below resources:

- WTCS
- WAICU
- UW System connect with the college of choice.

SIGNATURES

The On-the-Job Learning Performance Standards Guide includes a list of competencies youth apprentices learn through mentoring and training at the worksite.

Instructions for the Worksite Employers/Mentors and School-Base or YA coordinators.

This document should be reviewed with the employer / mentor, school-based or YA coordinator on a regular basis with the youth apprentice to record progress and plan future steps to ensure completion of the required competencies. Mentors, school-based / YA coordinator, and the apprentice sign below.

Employer/Mentor Signature	Employer/Mentor Signature
Employer/Mentor	Employer/Mentor
Business/Company	Business/Company
Date Signed	Date Signed
School-Based and/or YA Coordinator Signature	School-Based and/or YA Coordinator Signature
School-Based and/or YA Coordinator	School-Based and/or YA Coordinator
School District or Organization	School District or Organization
Date Signed	Date Signed
Youth Apprentice Signature	Youth Apprentice Signature
Youth Apprentice	Youth Apprentice
School District / High School	School District / High School
Date Signed	Date Signed

EMPLOYABILITY SKILLS

Youth apprentices must demonstrate key employability skills.

The DWD YA program employability skills requirement may be attained and demonstrated through two processes. (See options listed below.) Employability skills must be completed for every year a student is in the program. The DPI Employability Skills Certificate may be counted as meeting one of those two years, provided the certificate is earned in the same year the student is enrolled in youth apprenticeship or they can complete the YA Employability Skills in the OJL. The Employability Skills Certificate must be obtained through the DPI.

 If a student has successfully completed a Wisconsin Department of Public Instruction (DPI) State-Certified Cooperative Education, <u>Co-Op Employability Skill certification</u> then they have met the YA Employability Skills requirement for that year. A copy of the student's DPI Co-Op Employability Skill Certificate must be maintained on file with their YA regional consortium.

Earned Wisconsin Employability Skills Certificate (checked if applicable) or,

2. Completed and rated "Employability Skills" through this YA OJL guide as described below.

3	<i>Exceeds Expectations:</i> Exceeds entry-level criteria; requires minimal supervision; consistently
	displays this behavior
2	Meets Expectations: Meets entry-level criteria; requires some supervision; often displays this
	behavior
1	Working to Meet Expectations: Needs improvement; requires much assistance and supervision;
	rarely displays this behavior

The following skills are required of all youth apprentices.

	Employability Skills	Rating		
Competency and Rating Criteria		Minimum Rating of 2 for EACH		
		Check Rating		
		1	2	3
1.	Develops positive work relationships with others.	Year 1 Rating		
	Examples of qualities and habits that the employee might exhibit include			
	 Interacts with others with respect and in a non-judgmental 		Year 2 Ratir	ng
	manner			
	• Responds to others in an appropriate and non-offensive manner			
	Helps co-workers and peers accomplish tasks or goals			
	 Applies problem-solving strategies to improve relations with others 			
	• When managing others, shows traits such as compassion,			
	listening, coaching, team development, and appreciation			

Employability Skills	Rating		
	Minimu	n Rating of	2 for EACH
Competency and Rating Criteria		Check Ratir	ng
	1	2	3
2. Communicates effectively with others		Year 1 Ratir	ng
Examples of qualities and habits that the employee might exhibit			
include		Year 2 Ratir	
Adjust the communication approach for the target audience,			-
purpose, and situation to maximize impact			
Organizes messages/information in a logical and helpful manne	r		
Speaks clearly and writes legibly			
Models behaviors to show active listening			
Applies what was read to actual practice			
Asks appropriate questions for clarity			
3. Collaborates with others		Year 1 Ratir	l Ig
Examples of qualities and habits that the employee might exhibit			
include		Year 2 Ratir	
Works effectively in teams with people of diverse backgrounds			ν δ
regardless of sex, race, ethnicity, nationality, sexuality, religion,			
political views, and abilities			
Shares responsibility for collaborative work and decision makin	g		
 Uses the problem-solving process to work to work through differences of environments approaches a problem. 			
differences of opinion in a constructive manner to achieve a reasonable compromise			
 Avoids contributing to an unproductive group conflict 			
 Avoids contributing to an unproductive group connect Shares information and carries out responsibilities in a timely 			
• shares information and carries out responsibilities in a timely manner			
manner			
4. Maintains composure under pressure		Veer 1 Detir	
4. Maintains composure under pressure Examples of qualities and habits that the employee might exhibit		Year 1 Ratir	-
include			
Uses critical thinking to determine the best options or outcome	5	Year 2 Ratir	ıg
when faced with a challenging situation			
 Carries out assigned duties while under pressure 			
 Acts in a respectful, professional, and non-offensive manner 			
while under pressure			
Applies stress management techniques to cope under pressure			

	Employability Skills	Rating			
		Minimun	n Rating of 2	2 for EACH	
	Competency and Rating Criteria		Check Ratin	g	
		1	2	3	
5.	5. Demonstrates integrity		Year 1 Rating		
	Examples of qualities and habits that the employee might exhibit				
	include	,	Year 2 Ratir		
	Carries our responsibilities in an ethical, legal and confidential				
	 manner Responds to situations in a timely manner 				
	 Takes personal responsibility to correct problems 				
	 Models behaviors that demonstrate self-discipline, reliability, 				
	and dependability				
6.	Performs quality work	,	Year 1 Ratir	ng	
	Examples of qualities and habits that the employee might exhibit				
	include		Year 2 Ratir	ρ	
	Carries out written and verbal directions accurately				
	 Completes work efficiently and effectively Preforms calculations accurately 				
	 Conserves resources, supplies, and materials to minimize costs 				
	and environmental impact				
	• Uses equipment, technology, and work strategies to improve				
	workflow				
	Applies problem-solving strategies to improve productivity				
	 Adheres to worksite regulations and practices 				
	Maintains an organized work area				
7.	Provides quality goods or services (internal and external)		Year 1 Ratir	σ	
/.	Examples of qualities and habits that the employee might exhibit				
	include		Year 2 Ratir		
	Shows support for the organizational goals and principles by				
	own personal actions				
	Displays a respectful and professional image to customers				
	Displays an enthusiastic attitude and desire to take care of				
	 customer needs Seeks out ways to increase customer satisfaction 				
	 Produces goods to workplace specifications 				
	Froduces goods to workplace specifications				
8.	Shows initiative and self-direction	,	Year 1 Ratir	Ig	
	Examples of qualities and habits that the employee might exhibit				
	include		∟ ⊔ Year 2 Ratir		
	 Prioritizes and carries out responsibilities without being told 				
	Responds with enthusiasm and flexibility to handle tasks that				
	need immediate attention				
	 Reflects on any unsatisfactory outcome as an opportunity to learn 				
	 Improves personal performance by doing something different or differently 				
	Analyzes how own actions impact the overall organization				
	Supports own action with sound reasoning and principles				
	Balances personal activities to minimize interference with work responsibilities				

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Employability Skills	Rating		
	Minimun	n Rating of 2	2 for EACH
Competency and Rating Criteria		Check Ratin	g
	1	2	3
9. Adapts to change	,	Year 1 Ratir	ng
Examples of qualities and habits that the employee might exhibit			
include	•	Year 2 Ratir	ng
 Shows flexibility and willingness to learn new skills for various is harden. 			
job rolesUses problem-solving and critical-thinking skills to cope with			
changing circumstances			
 Modifies own work behavior based on feedback, unsatisfactory 			
outcomes, efficiency, and effectiveness			
Displays a "can do" attitude			
10. Demonstrates safety and security regulations and practices	`	Year 1 Ratir	ng
Examples of qualities and habits that the employee might exhibit include			
Follows personal safety requirements	,	Year 2 Ratir	ng
Maintains a safe work environment			
 Demonstrates professional role in an emergency 			
Follows security procedures			
Maintains confidentiality			
11. Applies job-related technology, information, and media		Year 1 Ratir	σ
Examples of qualities and habits that the employee might exhibit			
include		Year 2 Ratir	
 Applies technology effectively in the workplace 			
 Assesses and evaluates information on the job 			
Assesses training manuals, website, and other media related to			
the job			
12. Fulfills training or certification requirements for employment		Year 1 Ratir	ng
Examples of qualities and habits that the employee might exhibit			
include		Year 2 Ratir	
 Participation in required career-related training and/or educational programs 			
 Passing certification tests to qualify for licensure and/or 			
certification			
Participation in company training or orientation			
13. Sets personal goals for improvement Examples of qualities and habits that the employee might exhibit		Year 1 Ratir	-
include			
Setting goals that are specific and measurable		Year 2 Ratir	ng
 Setting work-related goals that align with the organization's 			
mission			
Identifying strategies to reach goals Deflecting on goal programs to reaching up have been defined as different and readifier			
 Reflecting on goal progress to regularly evaluate and modify goals 			
goals			

COMPETENCIES

Year 1: Masonry/Concrete Fundamentals youth apprentices must complete a **total of 15** Masonry/Concrete Fundamentals Competencies and a **minimum of 1** Masonry/Concrete Specialty Competency. Employers can substitute **1** competency with another occupationally appropriate skill. That skill should be added to the competency list for assessment. Year **1** competencies are completed with employer guidance. Youth apprentices must also complete the following during the first year:

Youth Apprentices must also complete the following during Year 1:

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Select construction type and circle the applicable year:

- □ Residential completed during Year: One and/or Two
- □ Commercial completed during Year: One and/or Two

Note that where necessary, skills can be simulated.

Rating Scale

- 3: Exceeds entry level criteria | Requires minimal supervision | Consistently displays this behavior
- 2: Meets entry level criteria | Requires some supervision | Often displays this behavior
- 1: Needs improvement | Requires much assistance and supervision | Rarely displays this behavior

MASONRY/CONCRETE FUNDAMENTALS

Masonry/Concrete Fundamental Skills	Rating				
	Minimu	Minimum Rating of 2 for EACH			
Competency and Rating Criteria		Check Rating			
	1	2	3		
1. Follow safety procedures		Year 1 Rating			
 select and use appropriate clothing and Personal 					
Protective Equipment (PPE)	Year 2 Rating		ng		
 comply with job site safety and security rules and regulations 					
 maintain a clean and organized work environment 					
 identify and report unsafe job conditions 					
 report injuries and damage to property 					

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2.	Read construction drawings and plans	٦	Year 1 Ratir	g
	 relate drawing to job task 			
	 interpret elements and symbols 	•	Year 2 Ratir	g
	 locate worksite features on a construction plan 			
	 convert scales measurements to full measurements 			
	 translate specifications to work requirements 			
3.	Interpret symbols and procedures	•	Year 1 Ratir	g
	 explain the role of drawings and specifications 			
	 identify drawings and symbols used on a construction 	•	Year 2 Ratir	g
	drawing			
	 apply information from drawings in construction activities 			
	 interpret specifications appearing on construction 			
	drawings			
	 interpret and convert measurements in terms of actual 			
	dimensions			
	explain specifications in terms of work requirements	-		
4.	Contribute to a job task plan		Year 1 Ratir	-
	 setup and prepare tools and equipment for safe operation 			
	 determine the scope of work 		Year 2 Ratir	
	respect contractual relationships			
5.	apply scheduling practices Work as a member of a construction team		Voor 1 Potin	2
5.	 offer and request assistance 		Year 1 Ratir	
	 follow company policies and procedures 			
	 Ionow company policies and procedures learn from other team members 		Year 2 Ratir	
6				
6.	 Prepare work area for construction remove debris 		Year 1 Ratir	•
	clean up sites		Year 2 Ratir	
	 dispose of waste and hazardous materials 			
7.	Select construction materials	•	Year 1 Ratir	g
	 consider usefulness and portability 			
	consider minimizing cost	,	Year 2 Ratir	g
	consider performance goals			
8.	Use hand and light duty tools		Year 1 Ratir	
	wear appropriate PPE			
	select the correct tool for the job		Year 2 Ratir	-
	inspect tool			
	operate the tool safely			
	 perform routine maintenance on hand tools 			
	store tool			
9.	Use power tools and equipment		Year 1 Ratir	g
	wear appropriate PPE			
	 select the correct tool for the job 		Year 2 Ratir	
	 inspect tool 			
1	 operate the tool safely 			
	 perform routine maintenance on power tools 			
1	 store tool 			
1				

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10. Perform materials handling	Year 1 Ratin	g
 identify materials necessary to complete the task 		
 conserve resources and materials 	Year 2 Ratin	g
 retrieve equipment and materials needed 		
 load and unload materials, tools, equipment, and supplies 		
 lift, position, and secure materials during installation 		
11. Install materials per job specifications	Year 1 Ratin	g
 retrieve equipment and materials needed 		
 unload materials, tools, equipment, and supplies 	Year 2 Ratin	g
 lift, position, and secure materials during installation 		
12. Perform construction measurements	Year 1 Rating	g
 select measuring tool 		
 read measurement accurately 	Year 2 Ratin	g
scale proportions		
 convert units of measurement 		
• estimate resources, materials, and supplies needed for a		
project		
 record measurements 		
13. Maintain a clean and safe work area	Year 1 Ratin	g
 clean and maintain materials and tools 		
 clean, organize, and put way items in the work area 	Year 2 Ratin	g
 store materials and tools after use 		
 follow facility procedures for clean-up and shut down 		
14. Clean up job site	Year 1 Ratin	g
 clean and maintain materials and tools 		
 store materials and tools after use 	Year 2 Ratin	g
 follow facility procedures for clean-up and shut down 		
15. Practice quality craftsmanship	Year 1 Ratin	g
 inspect and test work to determine quality 		
 monitor throughout for safety and quality 	Year 2 Rating	g
 identify impact of building codes on quality of work 		
 verify work meets job expectation 		
Competency Substitute (if you replaced a competency above,	Year 1 Ratin	g
note the competency and rating)		
	Year 2 Ratin	g
Comments:		

MASONRY/CONCRETE SPECIALTY SKILLS

- □ Year 1: Select 1
- Year 2: Select 1 different specialty skills or type of construction (residential vs. commercial) identified by employer

Masonry/Concrete Specialty Skills R	ating		
	_	m Rating of 2	2 for EACH
Competency and Rating Criteria	Check Rating		
	1	2	3
16. Assist with cutting brick and block		Year 1 Ratin	g
 work with brick and block for application 			
 use tools in cutting brick and block 		Year 2 Ratin	g
cut brick and block			
prepare joints			
assure proper techniques for bonding			
17. Assist with masonry and installation techniques		Year 1 Ratin	g
 assist with depositing masonry material 			
 assist with spreading masonry material 		Year 2 Ratin	g
 assist with consolidating concrete 			
 assist with striking concrete in a form 			
18. Lay masonry units to job specification		Year 1 Ratin	g
 assist with building a concrete footer 			
assist with setting and aligning forms that hold concrete to		Year 2 Ratin	g
the desired pitch and depth			
 assist with preparing units for placement 			
 verify the proper construction of forms 			
 ensure proper placement onto spacers 			
assist with placing concrete			
19. Assist with selecting the correct types of materials for the		Year 1 Ratin	g
job			
 assist with the use of mortar applications in a project 		Year 2 Ratin	g
assist with mixing mortar to the proper consistency for the			
application			
 assist with selecting the various types of mortar for the 			
specific jobs			
20. Perform volume estimates for material quantity		Year 1 Ratin	- <u> </u>
requirements			
 assist with applying measurements, drawings, and 		Year 2 Ratin	-
specifications to a project			
perform a slum test			
successfully mix a batch of concrete		Veer 1 Ded	_
Competency Substitute (if you replaced a competency above,		Year 1 Ratin	-
note the competency and rating)			
		Year 2 Ratin	•

Comments:		

RELATED INSTRUCTION

Indicate which related instruction courses the youth apprentice completed:

Course Title	Credits	Location



Post-Program Completion Survey

Youth Apprenticeship

YA POST-PROGRAM COMPLETION SURVEY

The <u>Post-Program Completion Survey</u> form is to be provided to each student completing the Youth Apprenticeship program to capture information on the student's plans after leaving the program. The form should be filled out during the final meeting between the student, mentor, and Local Youth Apprenticeship Coordinator, when the final checklist if filled out and signed. Information captured on this form must be entered online using the Youth Apprenticeship Online Data Application (YODA)

DWD is an equal opportunity employer and service provider. If you have a disability and need assistance with this information, please dial 7-1-1 for Wisconsin Relay Service. Please contact the Division of Employment and Training at 888-258-9966 and press 6 to request information in an alternate format, including translated to another language.



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