# WISCONSIN— YOUTH APPRENTICESHIP

## Plumber/Sprinkler Fitter Fundamentals

Youth Apprenticeship

#### PLUMBER/SPRINKLER FITTER FUNDAMENTALS

Plumber/Sprinkler Fitter youth apprentices gain skills related to the use of plumbing safety, drawings and blueprints, materials, tools, materials, and general worksite procedures. Apprentices must adhere to industry safety and security standards.

Length of Apprenticeship: One or two years

#### **REQUIRED COMPETENCIES**

Youth apprentices must become proficient in both general employability and occupation-specific competencies. All of these, and examples of how each can be demonstrated, are found in the following pages. **Year 1**: A total of 15 fundamentals occupational competencies must be learned for this occupation. **Year 2**: A total of 15 fundamentals occupational competencies. Employers may substitute out one of these and should write in the competency they are adding. Where necessary, skills can be simulated. Youth apprentices must be evaluated on these competencies at least two times each year of their apprenticeship.

Youth	Apprentices must also complete the following during Year 1:
	First Aid Certification
	Occupational Safety and Health Administration (OSHA) 10 or 30 Certification
Select	construction type and circle the applicable year:
	construction type and circle the applicable year: Residential completed during Year: One and/or Two

#### **Plumber/Sprinkler Fitter Competencies**

- 1. Follow safety procedures
- 2. Read construction drawings and plans
- 3. Interpret symbols and procedures
- 4. Contribute to a job task plan
- 5. Work as a member of a construction team
- 6. Prepare work area for construction
- 7. Select construction materials
- 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

#### **APPRENTICESHIP BRIDGING OPPORTUNITIES**

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

- Plumber
- Sprinkler Fitter



# **Plumber/Sprinkler Fitter Fundamentals**

Youth Apprenticeship

#### ON-THE-JOB LEARNING PERFORMANCE STANDARDS GUIDE

#### YOUTH APPRENTICE INFORMATION

Youth Apprentice Name	
YA Coordinator	
YA Consortium	
School District	
SIGNATURES	
The On-the-Job Learning Performance Standa	ards Guide includes a list of competencies youth
apprentices learn through mentoring and trai	·
should be reviewed with the employer/mento	tors and School-Based or YA coordinators: This document or, school-based or YA coordinator on a regular basis with plan future steps to ensure completion of the required ordinator, and the apprentice sign below.
Em	ployer/Mentor
1 <sup>st</sup> Evaluation (Required)	2 <sup>nd</sup> Evaluation (Required)
Employer/Mentor Signature	Employer/Mentor Signature
Employer/Mentor	Employer/Mentor
Business/Company	Business/Company
Date Signed	Date Signed
3 <sup>rd</sup> Evaluation (Optional)	4th Evaluation (Optional)
Employer/Mentor Signature	Employer/Mentor Signature
Employer/Mentor	Employer/Mentor
Business/Company	Business/Company
Date Signed	Date Signed

### **School-Based and/or YA Coordinator**

#### 1<sup>st</sup> Evaluation (Required)

#### 2<sup>nd</sup> Evaluation (Required)

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

#### 3<sup>rd</sup> Evaluation (Optional)

#### 4th Evaluation (Optional)

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**

#### 1<sup>st</sup> Evaluation (Required)

#### 2<sup>nd</sup> Evaluation (Required)

Youth Apprentice Signature	Youth Apprentice Signature
Youth Apprentice	Youth Apprentice
School District / High School	School District / High School
Date Signed	Date Signed

#### 3<sup>rd</sup> Evaluation (Optional)

#### 4th Evaluation (Optional)

Youth Apprentice Signature	Youth Apprentice Signature
Youth Apprentice	Youth Apprentice
School District / High School	School District / High School
Date Signed	Date Signed

#### EMPLOYABILITY SKILLS (TO BE COMPLETED BY YA EMPLOYER/MENTOR)

All youth apprentices must demonstrate the key employability skills listed below in order to complete the YA program. They do so by earning at least a "Meets Expectation" rating in each. **At least two evaluations are required each year of a youth apprenticeship.** More columns are included below for those who choose to conduct more frequent reviews.

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

	Employability Skills	Rating			
	Competency and Rating Criteria	Initial	Mid Year 1	Mid Year 2	Final
<ul> <li>Examples of quience</li> <li>Interacts via Responds</li> <li>Helps co-via Applies print</li> <li>When ma</li> </ul>	sitive work relationships with others.  cualities and habits that the employee might exhibit include:  with others with respect and in a non-judgmental manner  to others in an appropriate and non-offensive manner  workers and peers accomplish tasks or goals  roblem-solving strategies to improve relations with others  naging others, shows traits such as compassion, listening, coaching, elopment, and appreciation	☐ 1 ☐ 2 ☐ 3			
<ul> <li>Examples of questions</li> <li>Adjusts the situation to Organizes</li> <li>Speaks clee</li> <li>Models be</li> <li>Applies w</li> </ul>	es effectively with others valities and habits that the employee might exhibit include vie communication approach for the target audience, purpose, and to maximize impact messages/information in a logical and helpful manner early and writes legibly ehaviors to show active listening hat was read to actual practice opriate questions for clarity	☐ 1 ☐ 2 ☐ 3			
<ul> <li>Works eff sex, race,</li> <li>Shares res</li> <li>Uses the p constructi</li> <li>Avoids construction</li> </ul>	with others valities and habits that the employee might exhibit include ectively in teams with people of diverse backgrounds regardless of ethnicity, nationality, sexuality, religion, political views, and abilities sponsibility for collaborative work and decision making problem-solving process to work through differences of opinion in a five manner to achieve a reasonable compromise intributing to an unproductive group conflict formation and carries out responsibilities in a timely manner	□ 1 □ 2 □ 3	□ 1 □ 2 □ 3	☐ 1 ☐ 2 ☐ 3	☐ 1 ☐ 2 ☐ 3

	Employability Skills	Rating			
	Competency and Rating Criteria	Initial	Mid Year 1	Mid Year 2	Final
4.	<ul> <li>Maintains composure under pressure         Examples of qualities and habits that the employee might exhibit include     </li> <li>Uses critical thinking to determine the best options or outcomes when faced with a challenging situation</li> <li>Carries out assigned duties while under pressure</li> <li>Acts in a respectful, professional, and non-offensive manner while under pressure</li> <li>Applies stress management techniques to cope under pressure</li> </ul>	☐ 1 ☐ 2 ☐ 3	□ 1 □ 2 □ 3	☐ 1 ☐ 2 ☐ 3	□1 □2 □3
5.	Demonstrates integrity  Examples of qualities and habits that the employee might exhibit include  Carries out 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	☐ 1 ☐ 2 ☐ 3	☐ 1 ☐ 2 ☐ 3	☐ 1 ☐ 2 ☐ 3	□1 □2 □3
6.	Performs quality work  Examples of qualities and habits that the employee might exhibit include  Carries out written and verbal directions accurately  Completes work efficiently and effectively  Performs 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	☐ 1 ☐ 2 ☐ 3			
7.	Provides quality goods or services (internal and external)  Examples of qualities and habits that the employee might exhibit include  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	☐ 1 ☐ 2 ☐ 3			
8.	<ul> <li>Shows initiative and self-direction</li> <li>Examples of qualities and habits that the employee might exhibit include</li> <li>Prioritizes and carries out responsibilities without being told</li> <li>Responds with enthusiasm and flexibility to handle tasks that need immediate attention</li> <li>Reflects on any unsatisfactory outcome as an opportunity to learn</li> <li>Improves personal performance by doing something different or differently</li> <li>Analyzes how own actions impact the overall organization</li> <li>Supports own action with sound reasoning and principles</li> <li>Balances personal activities to minimize interference with work responsibilities</li> </ul>	☐ 1 ☐ 2 ☐ 3	☐ 1 ☐ 2 ☐ 3	☐ 1 ☐ 2 ☐ 3	□1 □2 □3

Employability Skills Rating				
Competency and Rating Criteria	Initial	Mid Year 1	Mid Year 2	Final
<ul> <li>9. Adapts to change         Examples of qualities and habits that the employee might exhibit include Shows flexibility and willingness to learn new skills for various job roles         <ul> <li>Uses problem-solving and critical-thinking skills to cope with changing circumstances</li> <li>Modifies own work behavior based on feedback, unsatisfactory outcomes, efficiency, and effectiveness</li> <li>Displays a "can do" attitude</li> </ul> </li> </ul>	☐ 1	□ 1	□1	□1
	☐ 2	□ 2	□2	□2
	☐ 3	□ 3	□3	□3
<ul> <li>10. Demonstrates safety and security regulations and practices</li></ul>	☐ 1	□1	□1	□1
	☐ 2	□2	□2	□2
	☐ 3	□3	□3	□3
<ul> <li>11. Applies job-related technology, information, and media  Examples of qualities and habits that the employee might exhibit include</li> <li>Applies technology effectively in the workplace</li> <li>Assesses and evaluates information on the job</li> <li>Assesses training manuals, website, and other media related to the job</li> </ul>	☐ 1	☐ 1	☐ 1	☐ 1
	☐ 2	☐ 2	☐ 2	☐ 2
	☐ 3	☐ 3	☐ 3	☐ 3
<ul> <li>12. Fulfills training or certification requirements for employment         Examples of this requirement may include</li> <li>Participation in required career-related training and/or educational programs</li> <li>Passing certification tests to qualify for licensure and/or certification</li> <li>Participation in company training or orientation</li> </ul>	☐ 1	☐ 1	☐ 1	☐ 1
	☐ 2	☐ 2	☐ 2	☐ 2
	☐ 3	☐ 3	☐ 3	☐ 3
<ul> <li>13. Sets personal goals for improvement</li></ul>	☐ 1	☐ 1	☐ 1	☐ 1
	☐ 2	☐ 2	☐ 2	☐ 2
	☐ 3	☐ 3	☐ 3	☐ 3

# OCCUPATIONAL COMPETENCIES (TO BE COMPLETED BY YA EMPLOYER/MENTOR)

Youth apprentices must earn a rating of at least "MEETS EXPECTATIONS" in each competency by the conclusion of the apprenticeship. **Year 1**: A total of 15 fundamentals competencies must be learned for this occupation. **Year 2**: A total of 15 fundamentals competencies. Employers may substitute out one of these and should write in the competency they are adding. Where necessary, skills can be simulated. **At least two evaluations are required each year of a youth apprenticeship.** More columns are included below for those who choose to conduct more frequent reviews.

Youth Apprentices must also complete the following during Year 1:  First Aid Certification  Occupational Safety and Health Administration (OSHA) 10 or 30 Certification	
Select construction type and circle the applicable year:  Residential completed during Year: One and/or Two  Commercial completed during Year: One and/or Two	
Select construction type and circle the applicable year:  Residential completed during Year: One and/or Two Commercial completed during Year: One and/or Two	

#### PLUMBER/SPRINKLER FITTERFUNDAMENTALS

	Occupational Competencies		Rat	ing	
			Evalu	ation	
		Min	imum Rat	ing of 2 EA	CH
	Competency and Rating Criteria		Check	Rating	
		Initial	Mid	Mid	Final
		iiiiciai	Year 1	Year 2	1
1.	Follows safety procedures		Year 1	Rating	1
	select and use appropriate clothing and personal protective		□ 1	□ 1	□ 1
	equipment (PPE)	□ 2	□ 2	<b>2</b>	<u> </u>
	<ul> <li>comply with job site safety and security rules and regulations</li> <li>maintain a clean and organized work environment</li> </ul>	□ 3	□ 3	□ 3	☐ 3
	<ul> <li>identify and report unsafe job conditions</li> </ul>		Year 2	Rating	
	<ul> <li>report injuries and damage to property</li> </ul>	□ 1	□ 1	□ 1	□ 1
	reperenting and damage to property	□ 2	□ 2	□ 2	□ 2
		<b>3</b>	□ 3	□ 3	□ 3
2.	Reads construction drawings and plans	Year 1 Rating			
	<ul> <li>relate drawing to job task</li> </ul>	□ 1	□ 1	□ 1	□ 1
	interpret elements and symbols	□ 2	☐ 2	□ 2	□ 2
	<ul> <li>locate worksite features on a construction plan</li> <li>convert scales measurements to full measurements</li> </ul>	□ 3	□ 3	□ 3	□ 3
	translate specifications to work requirements		Year 2	Rating	
	a and a speciment of the interest of the inter	□ 1	□ 1	<b>1</b>	□ 1
		□ 2	□ 2	□ 2	□ 2
		□ 3	□ 3	□ 3	□ 3

	Occupational Competencies	Rating			
		Evaluation			
		Minimum Rating of 2 EACH			
	Competency and Rating Criteria	Check Rating			
		1	Mid	Mid	<b>5</b> 1
		Initial	Year 1	Year 2	Final
3.	Interprets symbols and procedures		Year 1	Rating	•
	<ul> <li>explain the role of drawings and specifications</li> </ul>	<b>1</b>	<b>1</b>	<b>□</b> 1	
	<ul> <li>identify drawings and symbols used on a construction drawing</li> </ul>	□ <u>-</u> 2	□ - □ 2	□ - □ 2	☐ <b>2</b>
	<ul> <li>apply information from drawings in construction activities</li> </ul>			_	
	<ul> <li>interpret specifications appearing on construction drawings</li> </ul>	3	∐ 3	□ 3	3
	• interpret and convert measurements in terms of actual dimensions				
	<ul> <li>explain specifications in terms of work requirements</li> </ul>	Year 2 Rating			1
		□ 1	□ 1	□ 1	
		□ 2	□ 2	□ 2	□ 2
		<b>□</b> 3	□3	□3	<b>□</b> 3
4.	Contributes to a job task plan	Year 1 Rating			1
	setup and prepare tools and equipment for safe operation	<b>1</b>	<b>□</b> 1	1	<b>□</b> 1
	<ul> <li>determine the scope of work</li> </ul>	 2		 2	
	<ul> <li>respect contractual relationships</li> </ul>	 ☐ 3	 ☐ 3		3
	apply scheduling practices				
			Vear 2	Rating	
		<b>□1</b>			<b>□</b> 1
		☐ <u>1</u>			
			<u></u>	☐ 2	
		3	∐ 3	□ 3	3
_	Manufacture of a construction to an		V 1	Datina	
5.	Works as a member of a construction team			Rating	
	offer and request assistance	1	<b>∐</b> 1	<u></u> 1	
	follow company policies and procedures	□ 2	□ 2	□ 2	2
	learn from other team members	□ 3	☐ 3	☐ 3	☐ 3
		Year 2 Rating			
		□ 1	□ 1	□ 1	
		<b>□</b> 2	□2	□2	<b>□2</b>
		 □3	 3	 3	_ 
6.	Prepares work area for construction	Year 1 Rating			
	remove debris	<b>□</b> 1			<b>□</b> 1
	• clean up sites	□ <del>-</del> □ 2	□ - □ 2	□ - □ 2	
	dispose of waste and hazardous materials				
	•	3	∐ 3	□ 3	3
			Vee: 3	Pating.	<u> </u>
		Year 2 Rating			
			<u></u>		
		<u></u>	<u></u>	2 2	<u> </u>
		□ 3	□3	□3	□ 3

	Occupational Competencies	Rating				
		Evaluation Minimum Rating of 2 EACH Check Rating				
	Competency and Rating Criteria					
		Initial	Mid	Mid	Final	
		IIIItiai	Year 1	Year 2	Fillal	
7.	Selects construction materials		Year 1	Rating		
	<ul> <li>consider usefulness and portability</li> </ul>	□ 1	□ 1	□ 1		
	consider minimizing cost	<b>□2</b>	□2	□2	<b>□</b> 2	
	<ul> <li>consider performance goals</li> </ul>	 3	 3	   3		
		Year 2 Rating				
			∐1 □	☐ 1		
		<u></u>	<u></u>	<b>□</b> 2	<u>□</u> 2	
		<b>□</b> 3	∐ 3	☐ 3	3	
8.	Uses hand and light duty tools		Year 1	Rating	1	
	<ul> <li>wear appropriate personal protective equipment (PPE)</li> </ul>	□ 1	□ 1	□ 1		
	select the correct tool for the job	□ 2	□ 2	□ 2	□ 2	
	• inspect tool	□3	□ 3	□ 3	□3	
	operate the tool safely					
	perform routine maintenance on hand tools		Year 2	Rating		
	• store tool	<b>□1</b>	<b>□1</b>	1	<b>1</b>	
			□ <u>-</u>	□ <b>-</b> □ <b>2</b>		
				_	_	
			∐ 3	□ 3	3	
•	Harris and the state of the sta			<b>D</b>		
9.	Uses power tools and equipment			Rating		
	wear appropriate personal protective equipment (PPE)	1	<b>□</b> 1	<u> </u>		
	select the correct tool for the job	<b>□</b> 2	<b>□</b> 2	<b>2</b>	2	
	• inspect tool	☐ 3	☐ 3	☐ 3	☐ 3	
	operate the tool safely					
	<ul><li>perform routine maintenance on power tools</li><li>store tool</li></ul>	Year		2 Rating		
	• Store tool		□ 1	□ 1		
		<b>□</b> 2	<b>□</b> 2	<b>□</b> 2	<b>□</b> 2	
			 3	 □3	3	
				_		
10.	Performs materials handling	Year 1 Rating				
	identify materials necessary to complete the task				<b>□</b> 1	
	<ul> <li>conserve resources and materials</li> </ul>			□ <b>1</b> □ <b>2</b>	=	
	retrieve equipment and materials needed	<b>□</b> 2	<u></u>			
	<ul> <li>load and unload materials, tools, equipment, and supplies</li> </ul>	<b>□</b> 3	∐ 3	□ 3	3	
	lift, position, and secure materials during installation					
	, <sub>1</sub>	Year 2 Rating			Γ	
		□ 1	□ 1	□ 1		
		□ 2	□ 2	□ 2	□ 2	
		<b>□</b> 3	□3	□3	<b>□</b> 3	

Occupational Competencies	Rating			
	Evaluation			
	Minimum Rating of 2 EACH Check Rating			
Competency and Rating Criteria				
	Initial	Mid	Mid	Final
	c.a.	Year 1	Year 2	
11. Installs materials per job specifications		Year 1	Rating	
<ul> <li>retrieve equipment and materials needed</li> </ul>	□ 1	□ 1	□ 1	
<ul> <li>unload materials, tools, equipment, and supplies</li> </ul>	□ 2	□ 2	□ 2	□ 2
<ul> <li>lift, position, and secure materials during installation</li> </ul>	□3	□3	□3	□ 3
	Year 2 Rating			
		<b>□</b> 1	<b>□1</b>	□ 1
	_ 2	_ 2	 2	_ 2
				<u> </u>
12. Performs construction measurements	Year 1 Rating			
<ul> <li>select measuring tool</li> </ul>	□ 1	□ 1	□ 1	
<ul> <li>read measurement accurately</li> </ul>	□ 2	□ 2	□ 2	□ 2
scale proportions	<b>□</b> 3	<b>□</b> 3	<b>□</b> 3	□3
<ul> <li>convert units of measurement</li> </ul>				
<ul> <li>estimate resources, materials, and supplies needed for a project</li> </ul>		Year 2	Rating	
<ul> <li>record measurements</li> </ul>				<b>□</b> 1
			<b>□</b> 3	3
13. Maintains a clean and safe work area	Year 1 Rating			
clean and maintain materials and tools	<b>□1</b>			
<ul> <li>clean, organize, and put way items in the work area</li> </ul>				
<ul> <li>store materials and tools after use</li> </ul>	<u> </u> 2	<u> </u> 2	☐ 2	
<ul> <li>follow facility procedures for clean-up and shut down</li> </ul>			<b>□</b> 3	3
, p	Year 2		Dating	
		Tear 2	Tating 1	<b>1</b>
				=
				2
	<b>3</b>	∐3	<u> </u>	3
14. Cleans up job site	Year 1 Rating			<u> </u>
<ul> <li>clean and maintain materials and tools</li> </ul>			1	<b>1</b>
<ul> <li>store materials and tools after use</li> </ul>	│	□ <u>-</u>	☐ <b>2</b>	
<ul> <li>follow facility procedures for clean-up and shut down</li> </ul>		□ 2 □ 3		
	🗆 3	🗆 3	3	🗆 3
	Year 2 Rating			<u> </u>
		<b>□</b> 1		<b>1</b>
		☐ 2		
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Occupational Competencies	Rating			
		Evalu	ation	
	Min	imum Rat	ing of 2 EA	CH
Competency and Rating Criteria		Check	Rating	
, , ,		Mid	Mid	
	Initial	Year 1	Year 2	Final
15. Practices quality craftsmanship		Year 1 Rating		
inspect and test work to determine quality	<b>□1</b>			<b>□</b> 1
<ul> <li>monitor throughout for safety and quality</li> </ul>				
• , , ,	□ 2	□ 2	□ 2	<b>□</b> 2
identify impact of building codes on quality of work	□ 3	<b>3</b>	☐ 3	☐ 3
<ul> <li>verify work meets job expectation</li> </ul>				
	Year 2 Rating			ı
	<b>□1</b>	<b>□</b> 1	1	<b>□</b> 1
	<u> </u>	<u></u> 2	<u> </u>	2
	□ 3	☐ 3	☐ 3	<b>□</b> 3
Competency Substitute (if you replaced a competency above, note the		Year 1	Rating	
competency and rating)	□ 1	□ 1	□ 1	□ 1
	2	□ 2	2	2
	☐3	□ <u>-</u> 3	□2	
	3	<b>□</b> 3	<u></u> □ 3	3
			Rating	
	□ 1	<u> </u>	□ 1	
	□ 2	□ 2	□ 2	□ 2
	□3	□3	□3	<b>□3</b>
Comments:				
Comments.				

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