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| WI Youth Apprenticeship Logo | 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:**

Residential completed during Year: One and/or Two

Commercial completed during Year: One and/or Two

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| **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

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| WI Youth Apprenticeship Logo | Plumber/Sprinkler Fitter Fundamentals  Youth Apprenticeship  On-the-Job Learning Performance Standards Guide |

# Youth Apprentice information

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| --- |
| Youth Apprentice Name |
| YA Coordinator |
| YA Consortium |
| School District |

# 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-Based 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.

**E****mployer/Mentor**

**1st Evaluation (Required) 2nd Evaluation (Required)**

|  |  |
| --- | --- |
| Employer/Mentor Signature | Employer/Mentor Signature |
| Employer/Mentor | Employer/Mentor |
| Business/Company | Business/Company |
| Date Signed | Date Signed |

**3rd 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**

**1st Evaluation (Required) 2nd 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 |

**3rd 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**

**1st Evaluation (Required) 2nd Evaluation (Required)**

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

**3rd 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** |
| 1. Develops positive work relationships with others.   *Examples of qualities and habits that the employee might exhibit include:*   * Interacts with others with respect and in a non-judgmental 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 | | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| 1. Communicates effectively with others   *Examples of qualities and habits that the employee might exhibit include . . .*   * Adjusts the communication approach for the target audience, purpose, and situation to maximize impact * Organizes messages/information in a logical and helpful manner * Speaks clearly and writes legibly * Models behaviors to show active listening * Applies what was read to actual practice * Asks appropriate questions for clarity | | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| 1. Collaborates with others   *Examples of qualities and habits that the employee might exhibit include . . .*   * Works effectively in teams with people of diverse backgrounds regardless of sex, race, ethnicity, nationality, sexuality, religion, political views, and abilities * Shares responsibility for collaborative work and decision making * Uses the problem-solving process to work through differences of opinion in a constructive manner to achieve a reasonable compromise * Avoids contributing to an unproductive group conflict   Shares information and carries out responsibilities in a timely manner | | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| 1. Maintains composure under pressure   *Examples of qualities and habits that the employee might exhibit include . . .*   * Uses critical thinking to determine the best options or outcomes 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 | | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| 1. 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** |
| 1. 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** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| 1. 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** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| 1. Shows initiative and self-direction   *Examples of qualities and habits that the employee might exhibit include . . .*   * 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 | | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| 1. 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   * Uses 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 | | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| 1. Demonstrates safety and security regulations and practices   *Examples of qualities and habits that the employee might exhibit include . . .*   * Follows personal safety requirements * Maintains a safe work environment * Demonstrates professional role in an emergency * Follows security procedures * Maintains confidentiality | | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| 1. Applies job-related technology, information, and media   *Examples of qualities and habits that the employee might exhibit include . . .*   * Applies technology effectively in the workplace * Assesses and evaluates information on the job * Assesses training manuals, website, and other media related to the job | | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| 1. Fulfills training or certification requirements for employment   *Examples of this requirement may include . . .*   * 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 | | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| 1. Sets personal goals for improvement   *Examples of this requirement may include . . .*   * Setting goals that are specific and measurable * Setting work-related goals that align with the organization's mission * Identifying strategies to reach goals * Reflecting on goal progress to regularly evaluate and modify goals | | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **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** | **Rating** | | | |
| --- | --- | --- | --- | --- |
| **Competency and Rating Criteria** | **Evaluation**  **Minimum Rating of 2 EACH Check Rating** | | | |
| **Initial** | **Mid Year 1** | **Mid Year 2** | **Final** |
| 1. **Follows safety procedures**  * select and use appropriate clothing and personal protective equipment (PPE) * 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 | **Year 1 Rating** | | | |
| **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| **Year 2 Rating** | | | |
| **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| 1. **Reads construction drawings and plans**  * relate drawing to job task * interpret elements and symbols * locate worksite features on a construction plan * convert scales measurements to full measurements * translate specifications to work requirements | **Year 1 Rating** | | | |
| **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| **Year 2 Rating** | | | |
| **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| 1. **Interprets symbols and procedures**  * explain the role of drawings and specifications * identify drawings and symbols used on a construction 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 | **Year 1 Rating** | | | |
| **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| **Year 2 Rating** | | | |
| **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| 1. **Contributes to a job task plan**  * setup and prepare tools and equipment for safe operation * determine the scope of work * respect contractual relationships * apply scheduling practices | **Year 1 Rating** | | | |
| **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| **Year 2 Rating** | | | |
| **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| 1. **Works as a member of a construction team**  * offer and request assistance * follow company policies and procedures * learn from other team members | **Year 1 Rating** | | | |
| **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| **Year 2 Rating** | | | |
| **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| 1. **Prepares work area for construction**  * remove debris * clean up sites * dispose of waste and hazardous materials | **Year 1 Rating** | | | |
| **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| **Year 2 Rating** | | | |
| **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| 1. **Selects construction materials**  * consider usefulness and portability * consider minimizing cost * consider performance goals | **Year 1 Rating** | | | |
| **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| **Year 2 Rating** | | | |
| **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| 1. **Uses hand and light duty tools**  * wear appropriate personal protective equipment (PPE) * select the correct tool for the job * inspect tool * operate the tool safely * perform routine maintenance on hand tools * store tool | **Year 1 Rating** | | | |
| **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| **Year 2 Rating** | | | |
| **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| 1. **Uses power tools and equipment**  * wear appropriate personal protective equipment (PPE) * select the correct tool for the job * inspect tool * operate the tool safely * perform routine maintenance on power tools * store tool | **Year 1 Rating** | | | |
| **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| **Year 2 Rating** | | | |
| **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| 1. **Performs materials handling**  * identify materials necessary to complete the task * conserve resources and materials * retrieve equipment and materials needed * load and unload materials, tools, equipment, and supplies * lift, position, and secure materials during installation | **Year 1 Rating** | | | |
| **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| **Year 2 Rating** | | | |
| **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| 1. **Installs materials per job specifications**  * retrieve equipment and materials needed * unload materials, tools, equipment, and supplies * lift, position, and secure materials during installation | **Year 1 Rating** | | | |
| **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| **Year 2 Rating** | | | |
| **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| 1. **Performs construction measurements**  * select measuring tool * read measurement accurately * scale proportions * convert units of measurement * estimate resources, materials, and supplies needed for a project * record measurements | **Year 1 Rating** | | | |
| **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| **Year 2 Rating** | | | |
| **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| 1. **Maintains a clean and safe work area**  * clean and maintain materials and tools * clean, organize, and put way items in the work area * store materials and tools *after use* * follow facility procedures for clean-up and shut down | **Year 1 Rating** | | | |
| **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| **Year 2 Rating** | | | |
| **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| 1. **Cleans up job site**  * clean and maintain materials and tools * store materials and tools *after use* * follow facility procedures for clean-up and shut down | **Year 1 Rating** | | | |
| **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| **Year 2 Rating** | | | |
| **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| 1. **Practices quality craftsmanship**  * inspect and test work to determine quality * monitor throughout for safety and quality * identify impact of building codes on quality of work * verify work meets job expectation | **Year 1 Rating** | | | |
| **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| **Year 2 Rating** | | | |
| **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| Competency Substitute (if you replaced a competency above, note the competency and rating) | **Year 1 Rating** | | | |
| **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| **Year 2 Rating** | | | |
| **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| **Comments**: | | | | |

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