|  |  |
| --- | --- |
| WI Youth Apprenticeship Logo | Assembly and Packaging  Youth Apprenticeship |

# Assembly and Packaging

Assembly and Packaging youth apprentices follow processes to prepare goods and materials for shipping, including set up of assembly and packaging equipment and machinery. Apprentices must adhere to industry safety and security standards.

**Length of Apprenticeship:** One year

# 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. A total of 19 occupational competencies must be learned for this occupation. All 7 Manufacturing Fundamentals competencies with no substitutions, plus 12 Assembly and Packaging competencies. Employers may substitute out one Assembly and Packaging competency 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.

**Note: Students who completed a previous Manufacturing YA program do not need to repeat the Manufacturing Fundamentals competencies.**

|  |  |
| --- | --- |
| **Manufacturing Fundamentals Competencies** | **Assembly and Packaging Competencies** |
| 1. Focus on customer needs 2. Use various instruments 3. Operate tools and equipment safely 4. Practice quality assurance principles 5. Follow personal safety requirements 6. Maintain a safe work environment 7. Demonstrate professional role to be used in an emergency | 1. Read technical drawings and work orders 2. Interpret assembly and packaging symbols and procedures 3. Identify set up for assembly 4. Select tools and materials 5. Perform safety checks 6. Perform assembly set up 7. Verify assembly set up 8. Perform assembly 9. Perform quality checks 10. Build packaging 11. Package product 12. Process packaging documents |

# Apprenticeship Bridging Opportunities

The following Registered Apprenticeship is available in this area:

* Industrial Manufacturing Technician
* Machinist
* Maintenance Technician
* Tool and Die Maker

# Post-Secondary Pathway Opportunities

There are several post-secondary pathway opportunities in this area. The following is a partial list.

* Automated Packaging Systems Technician Technical Diploma
* Automation Systems Technology

|  |  |
| --- | --- |
| WI Youth Apprenticeship Logo | Assembly and Packaging  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 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.

**Employer/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** | | **Evaluation - Minimum Rating of 2 for EACH Check Rating** | | | |
| **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. A total of 19 competencies. All 7 Manufacturing Fundamentals competencies with no substitutions, plus 12 Assembly and Packaging competencies. Employers may substitute one Assembly and Packaging competency with another occupationally appropriate skill. That skill should be added to competency list for assessment. **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.

**Note: Students who completed a previous Manufacturing YA program do not need to repeat the Manufacturing Fundamentals Competencies****.**

|  |  |
| --- | --- |
| **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 |

| **Manufacturing Fundamentals Occupational Competencies** | **Rating** | | | |
| --- | --- | --- | --- | --- |
| **Competency and Rating Criteria** | **Evaluation**  **Minimum Rating of 2 for EACH Check Rating** | | | |
| **Initial** | **Mid Year 1** | **Mid Year 2** | **Final** |
| Focus on customer needs  * identify internal and external customers impacted by the production process * satisfy internal and external customer's expectations * collaborate with team * assist work site professional to keep internal and/or external customers informed of project progress and decisions that may affect them * define the impact of the Voice of the Customer * determine the impact of your work to the internal and external customer | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| Use various instruments  * consider the degree of precision required by the part feature * choose correct measuring instrument for task * verify equipment is available for use and in working order * verify equipment preventative maintenance and/or calibration * inspect tools and work area for safety considerations * clean and adjust measuring instrument prior to use * use gauges, calipers, and micrometer instruments * use semi-precision and precision layout tools * use digital gauges, checking fixtures * use digital scales, thermometers * confirm measurement accuracy * record measurement correctly including unit of measurement at proper interval * calibrate, clean, and store measuring instruments properly * convert standard to metric – metric to standard measurement units | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| Operate tools and equipment safely  * operate only tool/equipment that he/she is trained on * choose correct tool/equipment for the task * follow tool check list * verify tool/equipment is available for use and in working order * verify tool/equipment is current for preventative maintenance and/or calibration * wear appropriate Personal Protective Equipment (PPE) * inspect tool/equipment and work area for safety considerations * prepare tool/equipment for safe operation * operate tool/equipment safely with guarding devices * monitor tool/equipment for safe operation while operating * compare tool/equipment performance regularly to optimal equipment operations * follow facility procedures for clean-up and shut down after use * perform required preventative maintenance procedures * report abnormal tool/equipment conditions * properly shuts down and labels any tool/equipment that is not operating as expected * follow Lock Out/Tag Out procedures as applicable * document use and maintenance | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| Practice quality assurance principles  * inspect materials/piece/product at all stages of production * identify quality or condition of materials/piece/product * monitor materials, processes, equipment, tools, and products throughout the production process * inspect final product/piece to ensure it meets specifications * identify and segregate materials and/or product that do not meet specification * communicate with work site professional if materials/product do not meet requirements * document all quality checks * participate in root-cause analysis of process/product * take ownership of work * collaborate with work site professional on corrective action | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| Follow personal safety requirements (Safety)  * participate in required safety training * follow all worksite guidelines for personal safety * apply principles of proper body mechanics * report exposures, injuries, near misses, or accidents, personal or to others immediately * locate key information on Material Safety Data Sheets (MSDS) * handle and dispose of any hazardous materials appropriately * operate equipment that he/she is trained on * adhere to equipment safety standards * visually inspect equipment before operation * wear required Personal Protective Equipment (PPE) at all times * follow company emergency action plan * identify hazardous conditions and restricted areas in the workplace * avoid pinch points * be aware of surroundings | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| Maintain a safe work environment (safety)  * comply with posted safety warnings and symbols * identify unsafe conditions and/or work habits * report unsafe conditions and/or work habits * help maintain a clean and safe working environment free of debris and obstacles * maintain clean, organized work area * use hazardous materials according to company procedure * report any indications of insects or pests, if necessary * follow appropriate Lock out – tag out procedures * adhere to Occupational Safety and Health Administration (OSHA) Safety guidelines * follow rules for operating equipment (Powered Industrial Vehicle PIV) * identify applicable Emergency Stops | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| Demonstrate professional role to be used in an emergency (safety)  * participate in emergency safety simulations and drills * describe company’s policy and procedures for work site incidents, accidents, electrical, fire, tornado, bomb threats, robbery, hostage situations, and other emergency situations * identify the closest fire alarms and emergency exits * identify the fire extinguishers * identify appropriate alarms and procedures for using alarms * contact emergency personnel in the event of an emergency * contribute to emergency incident documentation | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| **Comments**: | | | | |

**Assembly and Packaging Occupational Competencies**

**(TO BE COMPLETED BY YA EMPLOYER/MENTOR)**

Eleven Assembly and Packaging Competencies from the list below must also be learned for this occupation. Employers may substitute out 1 competency 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.

| **Occupational Competencies** | **Rating** | | | |
| --- | --- | --- | --- | --- |
| **Competency and Rating Criteria** | **Evaluation**  **Minimum Rating of 2 for EACH Check Rating** | | | |
| **Initial** | **Mid Year 1** | **Mid Year 2** | **Final** |
| Read technical drawings and work orders  * review technical drawing * gather reference materials as needed * determine type of print and views used * determine material specifications * determine critical dimensions and tolerances * analyze supplementary data * determine product or job instructions and specifications * interpret assembly and packaging symbols and procedures | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| Interpret assembly and packaging symbols and procedures  * interpret technical drawings accurately as needed for job task * use appropriate terminology * identify lines, views, symbols, and representations on the drawings * interpret dimensions, tolerances, and scale on the drawings * interpret threads, tapers, and shop notes on the drawings * interpret the assembly and packaging plan from a technical drawing which includes tools, equipment, speeds, feeds, fixtures, and holders as applicable | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| Identify set up for assembly  * locate and review applicable technical drawings, work orders, and/or procedures for assembly processing * plan sequencing, tools, and equipment needed for assembly * identify set up needed * consult with worksite professional to verify assembly schedule, deadlines, and timeframes | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| Select tools and materials  * select tools and assembly equipment to be used * check assembly pieces needed against work order * verify assembly pieces and materials meet specifications * gather all resources needed at the workstation  notify work site professional of any discrepancies | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| Perform safety checks  * review assembly procedure to be used * review safety requirements of assembly procedure * verify safety equipment and Personal Protective Equipment (PPE) needed for assembly process * inspect tools and work area for safety considerations * examine assembly equipment labeling and safeguarding | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| Perform assembly set up  * assemble and adjust tools and assembly equipment as required * verify assembly equipment is available for use and in working order * verify assembly equipment is current for preventative maintenance and/or calibration * set assembly equipment parameters as required for the procedure * stage pieces and materials for assembly | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| Verify assembly set up  * verify set up meets assembly requirements and product specifications * examine first assembled final product for visual and/or dimensional specification * make adjustments to ensure final assembly meets specification if needed * verify repeatability of set up if applicable * document assembly set up procedure for repeatability if applicable * document startup/set up procedure | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| Perform assembly  * operate assembly equipment safely in the manner required for the job task * operate assembly equipment according to machine requirements * wear Personal Protective Equipment (PPE) required for the operation of the equipment * monitor equipment for safe operation while operating * inspect final assembled product * make adjustments ensuring assembled product meets specification * document assembly procedure | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| Perform quality checks  * test assembled product for function and/or compliance * label assembled products for compliance or non-compliance * document quality control checks | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| Build packaging  * verify testing of assembled product(s) is complete * identify package needed * assembly package * inspect package * stage finished package | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| Package product  * verify proper packaging procedure * retrieve packaging * use required protective packaging materials * place final compliant product in packaging * seal package * inspect package for relevant work order information * handle package to prevent damage * verify label meets regulatory and safety specifications * verify package meets shipping specifications | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** | **1**  **2**  **3** |
| Process packaging documents  * verify packaging documentation included matches the final packaged product * apply shipping documentation * communicate package availability to proper parties * verify documentation is legible * complete package documentation in appropriate format | **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) | **1**  **2**  3 | **1**  **2**  3 | **1**  **2**  3 | **1**  **2**  3 |
| **Comments**: | | | | |

No part of this document may be altered, duplicated, or extracted without written consent from the Wisconsin Department of Workforce Development (DWD).

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.

