

Agriculture, Food and Natural Resources (AFNR) Skill Standards Checklist

Student Name		YA Student ID Number		
YA Coordinator		YA Consortium		
School District		High School Graduation Date		
Certification Areas Completed: Required Skills - For EACH Pathway Check ✓ completed areas (p. 4) ☐ Core Skills ☐ Safety Animals Pathway (p. 5-7) ☐ General Animal Unit – REQUIRED FIRST ☐ Large Animal/Herd Unit		Level One Requirements: Students must complete ALL listed below Check ✓ completed areas Required Skills Minimum of ONE Pathway Unit Minimum of 2 semesters related instruction Minimum of 450 work hours Level Two Requirements:		
Plants Pat Gen Crop	hway (p. 8-11) eral Plant Unit – REQUIRED FIRST os Unit enhouse/Floral Unit dscaping Unit	Students must complete all listed below Check ✓ completed areas Required Skills Minimum of TWO Pathway Units Minimum of 4 semesters related instruction Minimum of 900 work hours *Unit can be completed two times for a Level Two as indicated on Unit page.		
☐ Wat	ental Systems Pathway (p. 12-13) er Resources Unit - REQUIRED FIRST anced Water Resources Unit			
Pathway (uctural and Technical Systems (p.14-15) culture Mechanic Technician L1 Unit culture Mechanic Technician L2 Unit*			
Total Hours Employed	Company Name	Telephone Number		
		()		

Instructions for the Worksite Mentor(s) and Instructor(s)

The Skill Standards Checklist is a list of the competencies (tasks) to be achieved through mentoring and training at the worksite.

- The worksite mentor should rate each competency as the student acquires and demonstrates the skill according to the performance standard criteria.
- A competency may be revisited and the score raised as the student becomes more proficient at the worksite.
- The mentor and student should go over this checklist together on a regular basis to record progress and plan future steps to complete the required competencies.

I certify that this student has successfully completed the competencies required in my department. Circle your YA role, sign and print your name, and complete with the date and the department name.

SIGN this page IF you have been a mentor, trainer, or instructor of this student Mentor/Trainer/Instructor Signature Mentor/Trainer/Instructor Signature Printed Name Printed Name Department Department Date Signed Date Signed Mentor/Trainer/Instructor Signature Mentor/Trainer/Instructor Signature **Printed Name Printed Name** Department Department **Date Signed** Date Signed Mentor/Trainer/Instructor Signature Mentor/Trainer/Instructor Signature **Printed Name** Printed Name Department Department Date Signed **Date Signed** Mentor/Trainer/Instructor Signature Mentor/Trainer/Instructor Signature **Printed Name** Printed Name Department Department Date Signed **Date Signed**

Operational Program Notes for Skill Standards Checklist

1. Agriculture, Food and Natural Resources Youth Apprenticeship Curriculum

- Definitions:
 - Competency- The worksite skill to be performed.
 - Performance Standards- HOW to assess skill performance as applicable to worksite.
 - Learning Objectives- Content knowledge recommended to learn these skills; may be taught by the employer, school district and/or technical college.
 - Skill Standards Checklist- The documented list of competencies completed by the YA student.
 - W/S- Listed after a skill indicates that skill performance may be learned and assessed at the
 worksite OR in the classroom in a simulated setting. However, a simulated setting should ONLY
 be used IF there is no possibility of skill performance at the worksite.
- Performance Standards & Learning Objectives are located in the applicable Appendices of the Program Guide for this Youth Apprenticeship

2. ALL Youth Apprentices MUST complete the Required Skills (Core Skills and Safety) competencies for EACH Pathway they are enrolled in

- The Required Skills competencies may be completed concurrently with the Technical Skills competencies.
- The Required Skills are common skills specific to all Agriculture, Food and Natural Resources industry subsectors. These skills are *aligned with* the National Association of State Directors of Career Technical Education Consortium (NASDCTEc) standards for Agriculture, Food and Natural Resources (AFNR).

3. Youth Apprenticeship choices (depending on job placement)

- Worksites can be chosen from any number of related settings, such as farms, landscapers, florists, greenhouses, veterinarian clinics, industry, and water treatment or wastewater management facilities, which can train the required skills.
- Competencies have been reviewed by the Department of Workforce Development for Child Labor Laws.
 Contact the Department of Workforce Development's Equal Rights Division/Labor Standards Bureau at 608-266-6860 for questions regarding child labor laws. SEE Appendix A for special Child Labor Law considerations in this YA Program.
- Students will complete a Minimum Rating in the Required Skills and one Basics pathway unit for a Level
 ONE Agriculture, Food and Natural Resources (AFNR) YA and a Minimum Rating in the Required Skills
 and two pathway units for a Level TWO AFNR YA.
- NOTE: Units within each Pathway build upon each other. Therefore, switching between pathways, after the successful completion of the first year, is allowable provided that the student begins the second year in the REQUIRED Basics unit listed under the NEW pathway choice.
- A tractor safety course is *highly recommended* if students will be using tractors during the course of their worksite placement.
- The Department of Workforce Development Occupational Certificate will indicate "Agriculture, Food and Natural Resources" attained when the program is completed.

4. Competency Ratings

- Rate the student on the competencies regularly and revisit the competencies with the student periodically to offer the opportunity for an improved rating.
- Arrangements must be made to ensure that the student learns, practices, AND performs each competency even if that competency is not part of their regular job function.
- "Entry Level" criteria should be interpreted to mean "able to do the task satisfactorily."
- "Assist" in front of a skill indicates that the student should perform the skill as indicated in the curriculum
 "while assisting a worksite professional." Training should go beyond "observation only" for these skills. It
 will be up to the employer to determine the criticality of each specific task, training completed, and the
 actual level of supervision required. See curriculum details for requirements.

Required Skills

Required of **ALL** Agriculture, Food and Natural Resources YA Students *Copy this page* **FOR EACH** pathway to be completed

CORE SKILLS		Minimum rating of 2 for EACH Check Rating			
	1	2	3		
Apply academic knowledge					
Apply career knowledge					
Apply Agriculture, Food, and Natural Resources industry knowledge					
Communicate effectively					
5. Act professionally					
Demonstrate customer service skills					
7. Cooperate with others in a team setting					
8. Think critically					
Exhibit regulatory and ethical responsibilities					
10. Use resources wisely					
11. Use basic technology					
SAFETY	Minimum rating of 2 for EACH Check Rating				
	1	2	3		
Follow personal safety requirements					
Maintain a safe work environment					
3. Demonstrate professional role to be used in an emergency					

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 & supervision | Rarely displays behavior

Animals Pathway

General Animal Unit		Minimum rating of 2 for EACH Check Rating		
	1	2	3	
Clean and maintain animal quarters				
2. Safely handle animals				
3. Mix feed, additives and/or medicines				
Manage animal waste				
Observe and measure animal physical characteristics				
6. Assist to examine animals				
7. Collect samples for testing and/or food production				
Maintain animal care and business records				
9. Manage inventory				
10. Evaluate the facility business and marketing plan (W/S)				

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Animals Pathway

Large Animal/Herd Unit Minimu			Minimum rating of 2 for EACH Check Rating	
		1	2	3
1.	Clean and groom animals			
2.	Feed and water animals			
3.	Mark or tag animals			
4.	Herd and/or patrol/monitor animals			
5.	Monitor animal food and water supplies			
6.	Assist to optimize animal performance and production			
7.	Collect and process animal products and by-products			
8.	Assist with reproductive selection (W/S)			
9.	Assist with reproductive breeding and/or birthing (W/S)			
10.	Assist to prevent the spread of animal diseases			
11.	Operate equipment & machinery safely			
12.	Clean and service equipment & machinery			
13.	Maintain facilities			

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Animals Pathway

Small Animal/Vet Assistant Unit Mini		Minimum rating of 2 for EACH Check Rating	
	1	2	3
Manage clinic or research appointments			
Set up area for animal exams & procedures			
3. Clean & sterilize equipment			
4. Maintain and Quality Control (QC) the diagnostic equipment			
5. Assist to collect diagnostic samples			
6. Run basic diagnostic tests			
7. Assist to administer routine treatments, vaccines, and medications			
8. Assist to prepare animals for surgery			
Monitor animal responses to non-surgical procedures			
10. Service customers and/or collect fees			
11. Assist with animal euthanasia (W/S)			

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General Plant Unit		Minimum rating of 2 for EACH Check Rating		
	1	2	3	
Prepare planting spaces				
2. Prepare soils/media				
3. Plant seeds, seedlings, or cuttings				
4. Monitor plants for light, moisture, and temperature requirements				
5. Assist to install and maintain watering and/or irrigation systems				
6. Mix fertilizers and additives				
7. Apply fertilizers				
8. Manage inventory				
Maintain agribusiness records				
10. Evaluate the facility business and marketing plan (W/S)				

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Crops Unit	Minimum rating of 2 for EACH Check Rating		
	1	2	3
Assist to plan crop from rotation schedule			
2. Till and test the soil			
3. Plant crops			
Assist to maintain and monitor crops			
5. Assist to prevent the spread of weeds, pests, and diseases			
6. Harvest crop product			
7. Assist to transport and unload crop			
8. Inspect, sort, and store product			
Operate crop equipment & machinery safely			
10. Clean and service equipment & machinery			

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Greenhouse/Floral Unit		Minimum rating of 2 for EACH Check Rating		
	1	2	3	
Service customers				
2. Process sales				
Assist to design crop plantings, displays, and/or floral arrangements				
4. Implement crop planting plan				
5. Assist to maintain and monitor crop plantings				
6. Assist to prevent the spread of weeds, pests, and diseases				
7. Perform sanitization procedures				
8. Prepare, sort, and store products				
9. Fill and package orders				
10. Load product for sale, delivery, or further distribution				
11. Assist to maintain facility & equipment				
12. Sharpen hand tools				

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Landscaping Unit Minimum rating of 2 f Check Rating			
	1	2	3
Assist to evaluate landscaping site			
Measure and prepare landscaping site			
3. Test soil			
4. Assist to create design			
5. Prepare supplies and equipment			
Remove waste materials and hardscaping			
7. Install construction materials and hardscaping			
8. Plant landscaping materials			
Maintain landscaped spaces			
10. Operate landscaping machinery safely			
11. Assist to maintain landscaping facility & equipment			
12. Sharpen hand tools			

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Environmental Systems Pathway

Water Resources Unit – REQUIRED FIRST		Minimum rating of 2 for EACH Check Rating			
	1	2	3		
Apply water industry knowledge					
Treatment & Operations	1	2	3		
Read technical drawings & work orders					
3. Monitor operating conditions, meters, & gauges					
Collect operational data					
5. Use operations software (SCADA, PLC, GIS/GPS, DBs)					
6. Adjust basic operating conditions based on readings					
7. Clean & maintain facility, tanks, filter beds, etc.					
8. Treat &/or dispose of solids/sludge/scale					
Lab	1	2	3		
9. Clean & maintain lab equipment					
10. Collect & store samples					
11. Preserve chain of custody					
12. Weigh & measure accurately					
13. Perform calculations & conversions					
14. Conduct basic lab testing					
Equipment & Quality	1	2	3		
15. Operate tools & equipment safely					
16. Monitor pumps & equipment for correct operation					

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Environmental Systems Pathway

Advanced Water Resources Unit			n rating of 2 f	
		1	2	3
Re	gulatory			
1.	Assist with reporting			
2.	Assist to evaluate security & public health operations			
3.	Assist with required inspections/audits			
Tr	eatment & Operations	1	2	3
4.	Assist to prepare chemicals	 		
5.	Assist to add chemicals			
6.	Perform start-up & shut-down of pumps & equipment			
7.	Inspect operational equipment			
8.	Assist to troubleshoot operations			
Lak		1	2	3
9.	Prepare microscope slides			
10.	Operate a microscope			
11.	Identify microbes			
12.	Assist to analyze lab results			
Eq	uipment & Quality	1	2	3
13.	Maintain schedules, communication, & documentation	 		
14.	Perform preventive maintenance (PM)			
15.	· · · · · · · · · · · · · · · · · · ·			
16.	Assist to troubleshoot & repair equipment			
17.	Assist to analyze operational data for productivity/trends			
18.	Assist to record, summarize & evaluate budget/usage/billing information			
19.	Participate in a system project			

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Power, Structural and Technical Systems Pathway

Level One (one year program) = Required Technical Skills + 3 Additional Skills Level Two (two year program) = Required Technical Skills + 10 Additional Skills*

*To include previously completed Level One Additional Skills.

Agriculture Mechanics Unit Level One complete All	Minimum rating of 2 for EACH Check Rating		
Level Two continue Required Technical Skills	1	2	3
REQUIRED TECHNICAL SKILLS	1		
Select correct hand tools and light duty power tools required for job			
Demonstrate safe and correct operation of hand tools, light duty power tools and stationary tools			
Clean, organize and maintain work environment			
Identify and demonstrate correct use of fasteners			
 Handle and store oils, grease, chemicals, cleaners, solvents, etc. according to the Materials Safety Data Sheet (M)SDS 			
Assist with proper engine testing and maintenance			
 Demonstrate safe practices and procedures in the operation, maintenance and repair of engines and equipment 			
Assist in the pre-inspection of equipment components			
Assist with the set up of equipment and machinery			
Connect software to equipment and retrieve diagnostic trouble codes			
Check fluid levels and lubricate machinery and equipment according to manufacturer specifications			
Maintain vehicle and machinery appearance and cleanliness prior to inspection and delivery			
Prepare and complete written documentation of work performed and parts used			
ADDITIONAL SKILLS Level One Complete any 3			
Level Two Complete an additional 7	1	2	3
14. Look up parts			
15. Demonstrate proper use of specific diagnostic tools			
Weld and cut metal using an oxyacetylene torch and plasma arc torch			
17. Read and interpret hydraulic symbols and flow on a schematic drawing			
18. Apply basic knowledge of hydraulics to service maintenance			

19. Assist with inspection and diagnosis of hydraulic components		
20. Assist with the maintenance and repair of system components		
21. Interpret electrical symbols and wiring schematics		
22. Apply basic electrical theory		
23. Assist with repair of failed components and/or repair of wiring		
24. Assist with inspection and diagnosis of electrical/electronic components		
25. Assist with the maintenance and repair of electrical/electronic components		
26. Assist with troubleshooting and installation of instrumentation and data acquisition system (e.g., Global Positioning System (GPS), spraying, planting, harvesting monitors, etc.)		
27. Assist with dismantling defective machines and equipment		
28. Assist with reassembly of machines and equipment		
29. Assist with calibration, metering, monitoring and sensing equipment		

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Additional Certifications, Training, Seminars and Projects

Please list in detail any additional certifications earned, any training and seminars attended, and/or any projects completed during the course of the Agriculture, Food and Natural Resources Youth Apprenticeship.

Description		
Notes/Comments		
Date Completed	Mentor/Trainer/Instructor Signature	Date Signed
Description		
Notes/Comments		
Date Completed	Mentor/Trainer/Instructor Signature	Date Signed
Description		
Notes/Comments		
Date Completed	Mentor/Trainer/Instructor Signature	Date Signed
Other Notes or Comments	S —	