# **Broadband Technician**



Youth Apprenticeship

### **BROADBAND TECHNICIAN**

The Broadband Technician assists with on-site installations, troubleshooting, repairs, and maintenance of telecommunications products and equipment. Technicians have direct, face-to-face contact with customers. Services include, but are not limited to, Telephony, Video/CATV/DBS, Internet, Wi-Fi, and/or high-speed networks.

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 9 occupational competencies must be learned for this occupation. Employers may substitute out one of these and should write in the competency they are adding. Youth apprentices must be evaluated on these competencies at least two times each year of their apprenticeship.

#### **Competencies**

- 1. Evaluate work order
- 2. Install and configure customer infrastructure
- 3. Verify completion of installation
- 4. Evaluate repair work order
- 5. Diagnose service problem
- 6. Resolve service problem
- 7. Install or replace ONT UPS
- 8. Educate customers on product use
- 9. Maintain information and system security

#### REGISTERED APPRENTICESHIP BRIDGING OPPORTUNITIES

The following Registered Apprenticeship is available in this area:

• Broadband Service Technician

#### POST-SECONDARY PATHWAY OPPORTUNITIES

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

- Broadband Internet Technician Technical Diploma
- Broadband Technologies Technical Diploma



# **Broadband Technician**

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 Guapprentices learn through mentoring and training a	·
Instructions for the Worksite Employers/Mentors as should be reviewed with the employer/mentor, sch the youth apprentice to record progress and plan fu competencies. Mentors, school-based/YA coordinat <a href="Employee"><u>Employee</u></a>	ool-based or YA coordinator on a regular basis with uture steps to ensure completion of the required
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		Rati	ing	
	Year	One Eval	uation Ra	iting
Competency and Rating Criteria	Initial	Mid	Mid	Final
		Year 1	Year 2	
<ol> <li>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     </li> </ol>	☐ 1 ☐ 2 ☐ 3			
<ul> <li>Communicates effectively with others         <ul> <li>Examples of qualities and habits that the employee might exhibit include</li> <li>Adjusts the communication approach for the target audience, purpose, and situation to maximize impact</li> <li>Organizes messages/information in a logical and helpful manner</li> <li>Speaks clearly and writes legibly</li> <li>Models behaviors to show active listening</li> <li>Applies what was read to actual practice</li> <li>Asks appropriate questions for clarity</li> </ul> </li> </ul>	☐ 1 ☐ 2 ☐ 3			
<ul> <li>Collaborates with others         Examples of qualities and habits that the employee might exhibit include         <ul> <li>Works effectively in teams with people of diverse backgrounds regardless of sex, race, ethnicity, nationality, sexuality, religion, political views, and abilities</li> <li>Shares responsibility for collaborative work and decision making</li> <li>Uses the problem-solving process to work through differences of opinion in a constructive manner to achieve a reasonable compromise</li> <li>Avoids contributing to an unproductive group conflict</li> <li>Shares information and carries out responsibilities in a timely manner</li> </ul> </li> </ul>	☐ 1 ☐ 2 ☐ 3			

Employability Skills		Rat	ing	
	Yea	Year One Evaluation Rating		ating
Competency and Rating Criteria	Initial	Mid	Mid	Final
		Year 1	Year 2	
<ul> <li>4. Maintains composure under pressure         Examples of qualities and habits that the employee might exhibit include         <ul> <li>Uses critical thinking to determine the best options or outcomes whereast 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 upressure</li> <li>Applies stress management techniques to cope under pressure</li> </ul> </li> </ul>	nen	□1 □2 □3	□1 □2 □3	□1 □2 □3
<ul> <li>Demonstrates integrity         <ul> <li>Examples of qualities and habits that the employee might exhibit include</li> <li>Carries out responsibilities in an ethical, legal and confidential manne</li> <li>Responds to situations in a timely manner</li> <li>Takes personal responsibility to correct problems</li> <li>Models behaviors that demonstrate self-discipline, reliability, and dependability</li> </ul> </li> </ul>	Z	□ 1 □ 2 □ 3	□ 1 □ 2 □ 3	□ 1 □ 2 □ 3
<ul> <li>Performs quality work         Examples of qualities and habits that the employee might exhibit include         <ul> <li>Carries out written and verbal directions accurately</li> <li>Completes work efficiently and effectively</li> <li>Performs calculations accurately</li> <li>Conserves resources, supplies, and materials to minimize costs and environmental impact</li> <li>Uses equipment, technology, and work strategies to improve workf</li> <li>Applies problem-solving strategies to improve productivity</li> <li>Adheres to worksite regulations and practices</li> <li>Maintains an organized work area</li> </ul> </li> </ul>	3	□1 □2 □3	□1 □2 □3	□1 □2 □3
<ul> <li>Provides quality goods or services (internal and external)         Examples of qualities and habits that the employee might exhibit include         <ul> <li>Shows support for the organizational goals and principles by own practions</li> <li>Displays a respectful and professional image to customers</li> <li>Displays an enthusiastic attitude and desire to take care of customer</li> <li>Seeks out ways to increase customer satisfaction</li> <li>Produces goods to workplace specifications</li> </ul> </li> </ul>	ersonal 3	☐ 1 ☐ 2 ☐ 3	☐ 1 ☐ 2 ☐ 3	☐ 1 ☐ 2 ☐ 3
<ul> <li>8. 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 diffusion of the example of the overall organization  • Supports own action with sound reasoning and principles  • Balances personal activities to minimize interference with work responsibilities</li> </ul>	3	☐ 1 ☐ 2 ☐ 3	☐ 1 ☐ 2 ☐ 3	☐ 1 ☐ 2 ☐ 3

Employability Skills Rating				
	Year One Evaluation Rating		nting	
Competency and Rating Criteria	Initial	Mid	Mid	Final
		Year 1	Year 2	
9. Adapts to change	<b>□</b> 1	<b>□</b> 1	<b>□</b> 1	<b>□1</b>
Examples of qualities and habits that the employee might exhibit include	<u> </u>	 2	 2	_ 2
Shows flexibility and willingness to learn new skills for various job roles		☐ 3		□ -
Uses problem-solving and critical-thinking skills to cope with changing		🗆 🤊	🗆 🤊	
circumstances				
Modifies own work behavior based on feedback, unsatisfactory outcomes,      officions and official and o				
efficiency, and effectiveness  • Displays a "can do" attitude				
Displays a call do attitude				
10. Demonstrates safety and security regulations and practices		<b>□1</b>	<b>□</b> 1	1
Examples of qualities and habits that the employee might exhibit include				
Follows personal safety requirements	<u> </u> 2	<u></u>	<u> </u> 2	<b>□ 2</b>
Maintains a safe work environment		∐ 3	∐3	<b>□</b> 3
Demonstrates professional role in an emergency				
Follows security procedures				
Maintains confidentiality				
11. Applies is by related to shape low, information, and modic	<del> </del>			
11. Applies job-related technology, information, and media  Examples of qualities and habits that the employee might exhibit include	<u> </u> 1	<u> </u>	<u> </u> 1	1
<ul> <li>Applies technology effectively in the workplace</li> </ul>	<b>□</b> 2	<b>□</b> 2	2	<b>□</b> 2
Assesses and evaluates information on the job	□ 3	☐ 3	☐ 3	☐ 3
Assesses training manuals, website, and other media related to the job				
<b>g</b> ,				
12. Fulfills training or certification requirements for employment	<b>□</b> 1	□ 1	□ 1	□ 1
Examples of this requirement may include	<u> </u>	 2	 2	_ 2
Participation in required career-related training and/or educational				□ 3
programs				
Passing certification tests to qualify for licensure and/or certification				
Participation in company training or orientation				
13. Sets personal goals for improvement	<b>□</b> 1	<b>□</b> 1	<b>□</b> 1	<b>□1</b>
Examples of this requirement may include				
Setting goals that are specific and measurable	<u> </u> 2	<u></u>	<u> </u> 2	<b>□2</b>
Setting work-related goals that align with the organization's mission		∐ 3		∐ 3
Identifying strategies to reach goals				
Reflecting on goal progress to regularly evaluate and modify goals				

# 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 9 competencies, 8 must be from the list below. If necessary, employers can substitute one competency with another occupationally appropriate skill. That skill should be added to the 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.

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

	Occupational Competencies		Rati	ing	
			Evalua		
	Compatancy and Pating Critaria	Minim	um Ratin Check I	_	EACH
	Competency and Rating Criteria		Mid	Mid	
		Initial	Year 1	Year 2	Final
1.	Evaluate work order	□ 1	□ 1	□ 1	□ 1
	identify the customer	□ 2	□ 2	☐ 2	□ 2
	identify services ordered	□ 3	□ 3	□ 3	□3
	<ul> <li>verify the location of the facility</li> </ul>				
	review equipment needs				
	follow company procedure regarding installation				
	read network map				
	get connectivity to location				
	install cross connect				
	assist splicing customer facility				
	clean fiber optic connectors				
	• install demarcation point (DMARC)				
	<ul> <li>install a Universal Power Supply (UPS)</li> </ul>				
	test connectivity to the premise				
2.	Install and configure Customer Infrastructure			□ 1	□ 1
	install jack and wiring	□ 2	□ 2	□ 2	□ 2
	certifies inside wiring	☐ 3	☐ 3	□ 3	□ 3
	<ul> <li>install Wi-Fi gateway routers and modems</li> </ul>				
	optimizes Wi-Fi location				
	<ul> <li>install ethernet switches</li> </ul>				
	• install VoIP devices				
	<ul> <li>install Set Top Boxes (STB) and remotes</li> </ul>				
	• install Wi-Fi extenders				
	install mesh network				
	<ul> <li>install ethernet overpower, MOCA, or HPNA</li> </ul>				

	Occupational Competencies		Rat	ing	
	•		Evalua	ation	
		Minimum Rating of 2 for EAC			EACH
	Competency and Rating Criteria	Check Rating			
		Initial	Mid	Mid	Final
		Initial	Year 1	Year 2	rinai
3.	Verify completion of installation	<b>□</b> 1	<b>□</b> 1	<b>1</b>	□ 1
	hook up customer equipment	 2		 2	 2
	• test broadband, TV, voice services	□ <del>-</del>	□ <del>-</del>		□ <del>-</del>
	• install IoT (Internet of Things) devices per company procedures	<u> </u> 3	🗀 🍮	3	🗆 3
	verify services are working				
	educate customer on products installed				
	·				
4.	Evaluate repair work order	<b>□</b> 1	<b>□</b> 1	□ 1	<b>□</b> 1
	identify the customer	 2	 2	 2	 2
	identify the issue	□ - □ 3	☐ ☐ 3		□ - □ 3
	verify the location of the facility		🗀 🤊	_	🗆 🤊
	review equipment needs				
	follow company procedure regarding trouble shooting				
5.	Diagnose service problem	<b>□</b> 1	<b>□</b> 1	<b>□1</b>	<b>□1</b>
	<ul> <li>identify proper tests equipment needed to perform tests</li> </ul>		 □ 2	 	 2
	perform the tests	□ <del>-</del>	□ <del>-</del>	 ☐3	□ <del>-</del>
	assess tests result	L 3	🗆 3		L 3
	<ul> <li>determine location of problem (inside/outside)</li> </ul>				
	communicate with customer if needed				
6.	Resolve Service Problem	□ 1	□ 1	□ 1	□ 1
	repair or replace equipment	□2	□2	□2	□2
	repair or replace facilities	 □3		 3	 3
	<ul> <li>optimizes network configuration wired and wireless</li> </ul>				
	<ul> <li>confirm service is operating and meets customer satisfaction</li> </ul>				
	communicate resolution to customer				
7.	•	□ 1	□ 1	□ 1	□ 1
	demonstrate proper installation	□ 2	□ 2	□ 2	□ 2
	demonstrate proper replacement	□ <b>3</b>	3	3	3
8.	Educate customers on product use	<b>□</b> 1	<b>□1</b>	<b>□1</b>	<b>□1</b>
•	demonstrate products to customers if needed				
	refer to documentation or company literature	<u> </u> 2	<u> </u> 2	<u></u>	<b>□</b> 2
	refer to documentation of company interded	3	∐3	∐ 3	3
9.	Maintain information and system security	<b>□</b> 1	<b>□</b> 1	<b>□1</b>	<b>□</b> 1
	identify the impact of sensitive data exposure	☐ <b>2</b>		□ <del>-</del> □ 2	
	use virus and malware protection tool				
	use strong passwords	3	∐3	∐ 3	
	<ul> <li>monitor security of company and personal data</li> </ul>				
			•		

Occupational Competencies	Rating			
	Evaluation			
	Minimum Rating of 2 for EACH			
Competency and Rating Criteria	Check Rating			
, , , , , , , , , , , , , , , , , , ,		Mid	Mid	
	Initial	Year 1	Year 2	Final
Competency Substitute (if you replaced a competency above, note the	1			<u> </u>
competency and rating)				
	<u> </u>	2	☐ <b>2</b>	<u> </u>
	□ 3	□ 3	□ 3	<b>3</b>
	<u> </u>			
	<u> </u>			
	<u> </u>			
Comments:				
Comments.				

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