

2020



Essential Skills for Manufacturing

Fabricating the Future:
Building Tomorrow's Manufacturing Workforce



Manufacturing is thriving in the London Economic Region, helping grow our economy and providing ample job opportunities. As more companies build production facilities in the London region in the years ahead, the role of manufacturing in local employment will continue to grow.

There's never been a better time to consider a career in manufacturing. Learn more about what jobs in manufacturing have to offer through this series of 5 modules:

1. Manufacturing: It's Made for You
2. Essential Skills for Manufacturing
3. Apprenticeship in Manufacturing
4. Manufacturing Job Postings
5. Dinner Is Served: An Introduction to Food Processing



This curriculum was produced by Literacy Link South Central. For questions about it or what adult literacy programs have to offer, please contact LLSC at (519) 681-7307 or visit www.llsc.on.ca



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Objectives

By completing this module, you will learn:

- The Essential Skills typically used in the workplace
- Which Essential Skills you already have
- Which Essential Skills you'd like to work on
- About programs that can help you develop your Essential Skills



Introduction

Each manufacturing site specializes in making certain products. Often, on-the-job training is required for you to understand what specific tasks you'll be doing in the workplace, like working with machinery.

However, beyond the knowledge and skills that are needed to do certain jobs, there are sets of skills that you should have that are more general. These skills are often referred to as "Essential Skills."

You use Essential Skills every day, often without knowing. It's worth making sure you have the Essential Skills you need for any workplace. By strengthening these skills, you also strengthen your ability to work at various job sites and to continue learning while working.

Activity 1

The following are lists of Essential Skills and activities that can be used at many manufacturing workplaces. By completing the following checklists, you will reveal what skills you have and what skills you might want to learn to do better.



Reading in Manufacturing

Understanding materials written in sentences and paragraphs	I can do this	I would like to do this better
Read and understand an employee handbook		
Read and understand health and safety policies		
Read and understand an employment contract		
Read a manual to figure out how to use a machine		
Read information to know more about company products		
Scan a paragraph to find key pieces of information		



Writing in Manufacturing

Communicating by arranging words on paper or computers	I can do this	I would like to do this better
Take notes when listening to others at staff meetings		
Write down a phone message for a co-worker		
Send an email to a customer about product information		
Write the facts on an incident report form		
Write a list of materials and supplies		





Computers in Manufacturing

Using a computer to complete work-related tasks	I can do this	I would like to do this better
Search online for manufacturing jobs		
Fill out online job applications		
Research information about a company		
Save a document on a computer		
Send an attachment by email		
Put information into a database		
Send a message to a group of people in the same email		
Insert information into an online calendar		
Login to accounts when asked for a “Username” and “Password”		



Math in Manufacturing

Understanding numbers and how to use them to complete a task	I can do this	I would like to do this better
Interpret wage rates (when given the total yearly wage, what's the rate per hour?)		
Add a column of numbers		
Multiply (example: 5 hours per day for 8 days)		
Calculate one third of something		
Translate a percentage into a number (example: 25% of 240 = ?)		
Use a measuring tape		
Use a calculator		
Count change		
Double numbers in my head for quick calculations		
Compare costs to determine best value between two items		
Use the 24-hour clock (example: 17:45 is _____ pm)		

Understanding numbers and how to use them to complete a task	I can do this	I would like to do this better
Round off a number (example: when rounded up, $258 = ?$)		
Follow directions that have ratios (example: 1:5 red to white drops of paint)		
Calculate perimeter of a square or rectangle		
Calculate area of a square or rectangle		
Use the metric system (example: cm, ml, grams)		
Use the imperial system (example: inches, feet, pounds)		
Convert a measurement from metric to imperial		

Did you know?

There are free programs available to help you build your Essential Skills. If you identified a need to build any of the skills outlined in this module, there are local adult learning programs that can help you.

Contact Literacy Link South Central to ask about programs near you!

Email: literacylink@llsc.on.ca

Call: 519-681-7307



Document Use in Manufacturing

Finding information and entering information into documents/forms	I can do this	I would like to do this better
Scan manufacturing job postings to see if there's one that's a fit for me		
Review an inventory sheet to see what products are missing		
Find information in a manual using the "Table of Contents"		
Fill out time sheets		
Understand my pay statements		
Know the difference between a chart and a graph		
Describe what a chart or graph is showing		
Understand what a colour coding system is telling me		
Review work orders to know what a customer wants		
Review a checklist to know what supplies are available		
Use a map to find a location		



Communicating in Manufacturing

Using speech to exchange thoughts and information	I can do this	I would like to do this better
Ask employer for more information about what I'm supposed to be doing		
Explain a step-by-step procedure to a co-worker		
Introduce a co-worker to a customer		
Describe a situation		
Understand work-related vocabulary (example: supervisor, shiftwork, regulations)		
Ask someone for help completing a task		
Respectfully express a concern about workplace safety		
Ask someone to clarify what they said		
Ask for advice when I need it		



Teamwork in Manufacturing

Interacting with others to make a positive work environment	I can do this	I would like to do this better
Recognize when I have a problem with another person		
Look at different points of view when there's an issue		
Know which problems are important to solve and which problems I can let go		
Share my feelings respectfully		
Think about what I heard before I respond to what someone has said		
Ask someone to clarify what they said		
Use my own experiences to understand what others have said		
Accept and provide feedback		
Recognize when someone needs help		
Let people know I think they are doing a good job		



Problem Solving

Finding solutions to issues	I can do this	I would like to do this better
Describe to someone what information I need to solve a problem		
Think about a problem in the past that is similar and might help me with a current problem		
Know what information I'm missing to do my job well		
Know who is the best person to ask for help in solving a problem		
Know what part of my work should be done first and what can be done later (prioritize)		
Identify several options to address an issue		
Know how to think of the pros and cons of different scenarios		

Source: Portions adapted from Essential Skills Training Audit @ 2008 Literacy Alberta.

Activity 2



Based on the activity you've just completed, did you find there are areas where you might need to build your Essential Skills?

Use the space provided on the following page to record 3 skill areas you could improve on and reflect on your next steps in learning.

Example:



Skill Area #1

I need to build skills in: _____

I would like to work on these skills specifically: _____

When I have these skills I can tell an employer that I can: _____

Skill Area #2

I need to build skills in: _____

I would like to work on these skills specifically: _____

When I have these skills I can tell an employer that I can: _____

Skill Area #3

I need to build skills in: _____

I would like to work on these skills specifically: _____

When I have these skills I can tell an employer that I can: _____

The Importance of Math

Math is one of the Essential Skills that can get overlooked. It's an important set of skills that we use each day and math can be important to your success at work.

Many people find they forget some of the math they learned when they were in school. Math is very much a “if you don't use it, you will lose it” skill. If you're unsure if you need to build your math skills for work in manufacturing, try these math exercises to help you find out.



Activity 3

The manufacturing company you work for makes flooring based on customer demand. A customer is renovating a small gym and has come to your company to get new flooring. To know how much flooring the customer needs, we need to know the size of the area that needs covering.

Using the image of the gym floor, answer the following questions.

What is the length of the room in inches? _____

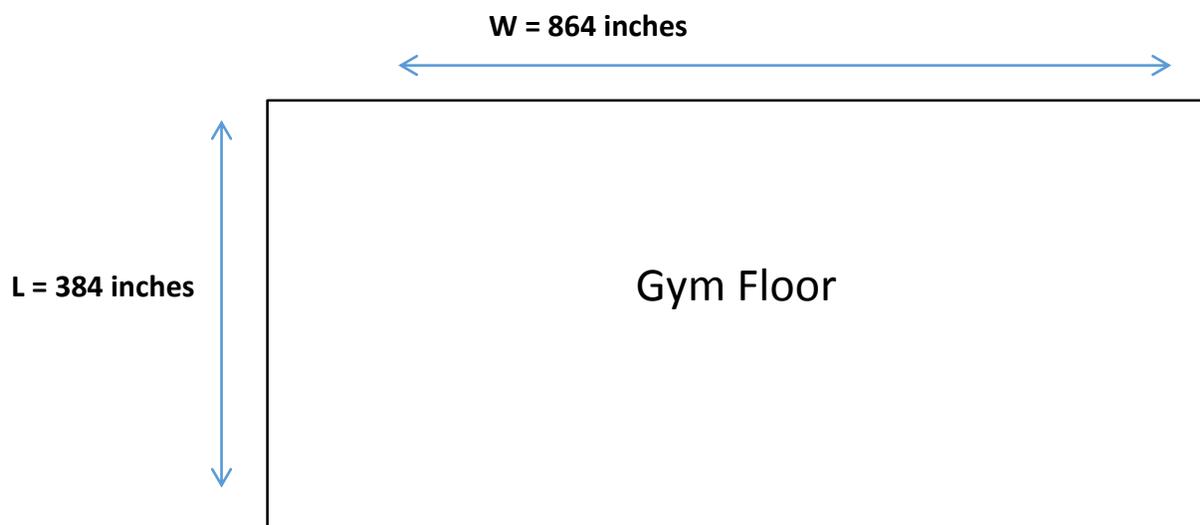
What is the width of the room in inches? _____

What is the length of the room in feet? _____

What is the width of the room in feet? _____

What is the area of the room in feet? _____

If one inch equals 2.54 centimetres, what is the width of the room in centimetres?



Activity 4

The cabinet-making company you work for has a customer who wants three cabinets for their kitchen. They might just want to buy the cabinets you regularly offer, but they might also want you to make some small changes to how the regular cabinets look. The customer needs to know the prices of the cabinets before they decide if they want the regular cabinets you offer or if they want ones with small changes.

Making changes to the regular cabinets that your company offers is considered a “custom” order. Your company charges an extra 15% on all custom orders. Fill in the following for the customer so they have the pricing information they need.

Item	Regular Price	Regular price plus 15%	Custom order price
Shaker cabinet	\$ 32.00	+	\$
Flat panel cabinet	\$ 30.00	+	\$
Inset cabinet	\$ 25.00	+	\$

Total price regular	\$	Total price custom order	\$
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Do you need to build your math skills?

Literacy Link South Central can help.

Email: literacylink@llsc.on.ca

Call: 519-681-7307

Reflection

Do you know:

- The Essential Skills typically used in the workplace?
- Which Essential Skills you already have?
- Which Essential Skills you'd like to work on?
- About programs that can help you develop your Essential Skills?