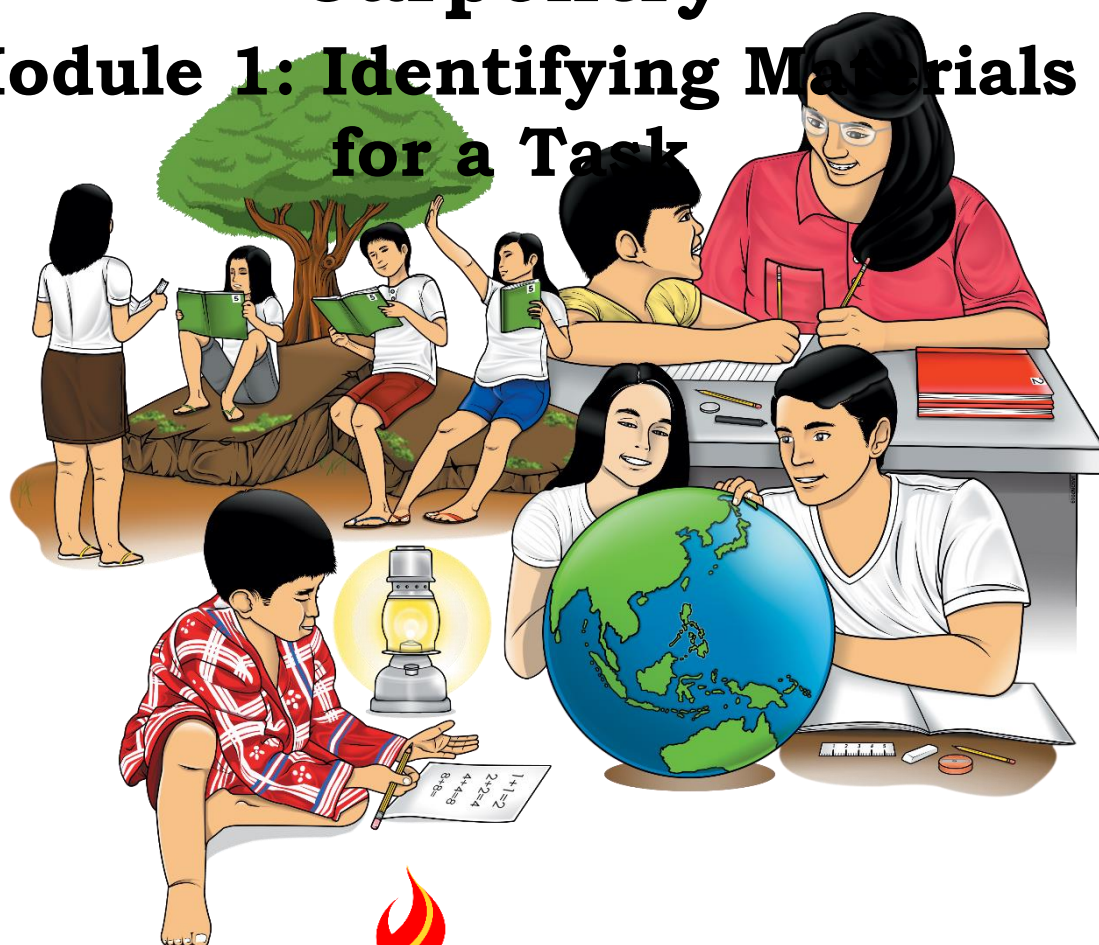


Technology and Livelihood Education

Exploratory Course Carpentry

Module 1: Identifying Materials for a Task



TLE- Carpentry Grade 7/8

Alternative Delivery Mode

Module 1: Identifying Materials and Tools for a Task

First Edition, 2020

Republic Act 8293, section 176 states that: No copyright shall subsist in any work of the Government of the Philippines. However, prior approval of the government agency or office wherein the work is created shall be necessary for exploitation of such work for profit. Such agency or office may, among other things, impose as a condition the payment of royalties.

Borrowed materials (i.e., songs, stories, poems, pictures, photos, brand names, trademarks, etc.) included in this module are owned by their respective copyright holders. Every effort has been exerted to locate and seek permission to use these materials from their respective copyright owners. The publisher and authors do not represent nor claim ownership over them.

Published by the Department of Education
Secretary: Leonor Magtolis Briones
Undersecretary: Diosdado M. San Antonio

Development Team of the Module

Writer: Al Rey P. Pelongco

Editor: Kevin Lloyd V. Hijastro III

Reviewers: Mary Grace B. Leysa, Salvador F. Movilla

Illustrator: Jim Ryan S. Dela Cruz, Regina L. Fiel

Layout Artist: Jim Ryan S. Dela Cruz, Oliver O. Ostulano

Cover Art Designer: Jason Villena

Management Team: Allan G. Farnazo, CESO IV

Gilbert B. Barrera

Arturo D. Tingson Jr.

Peter Van C. Ang-ug

Ismael M. Ambalgan

Sheryl L. Osano

Josevic F. Hurtada

Arnulfo D. Dinero

Printed in the Philippines by Department of Education – SOCCSKSARGEN Region

Office Address: Regional Center, Brgy. Carpenter Hill, City of Koronadal
Telefax: (083) 2288825/ (083) 2281893
E-mail Address: region12@deped.gov.ph

7/8

Technology and Livelihood Education

Exploratory Course

Carpentry

**Module 1: Identifying Materials
for a Task**

Introductory Message

This Self-Learning Module (SLM) is prepared so that you, our dear learners, can continue your studies and learn while at home. Activities, questions, directions, exercises, and discussions are carefully stated for you to understand each lesson.

Each SLM is composed of different parts. Each part shall guide you step-by-step as you discover and understand the lesson prepared for you.

Pre-tests are provided to measure your prior knowledge on lessons in each SLM. This will tell you if you need to proceed on completing this module or if you need to ask your facilitator or your teacher's assistance for better understanding of the lesson. At the end of each module, you need to answer the post-test to self-check your learning. Answer keys are provided for each activity and test. We trust that you will be honest in using these.

In addition to the material in the main text, Notes to the Teacher are also provided to our facilitators and parents for strategies and reminders on how they can best help you on your home-based learning.

Please use this module with care. Do not put unnecessary marks on any part of this SLM. Use a separate sheet of paper in answering the exercises and tests. And read the instructions carefully before performing each task.

If you have any questions in using this SLM or any difficulty in answering the tasks in this module, do not hesitate to consult your teacher or facilitator.

Thank you.



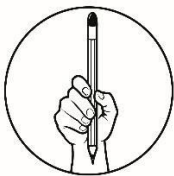
What I Need to Know

How are you today? Welcome to Lesson 1. How do you feel that you are going to be a skilled carpenter soon? This module was designed and written with you in mind. It is here to help you describe tools and materials used in carpentry. Do you have tools and materials for carpentry at your home? If yes, they are the basic construction tools and materials that a carpenter needs to build furniture or a house to make your family safe and comfortable.

After going through this module, you are expected to;

1. Describe tools and materials used in carpentry and,
2. Prepare tools and materials for a task.

(TLE_IACP7/8UT-0a-1).



What I Know

First, test yourself with your prior knowledge about the lesson you are about to learn.

Pre-Test

Directions: Choose the letter of the best answer. Write the chosen letter in your activity sheet.

1. You need to mark a line on a floor that is to be 10 meters (32' 10"). Which is the best layout tool to use?
 - a. rip saw
 - b. level bar
 - c. pull-push-rule
 - d. cross-cut-saw
2. Which are used as parts or components of a project?
 - a. tools
 - b. materials
 - c. equipment
 - d. hardware
3. Which of the following does the term plumb refer to?
 - a. horizontal plane
 - b. vertical plane
 - c. both
 - d. none of these
4. Architectural drawings are not drawn full size. Which is used to allow the building views to be drawn on a smaller paper?
 - a. measuring tape
 - b. ruler
 - c. scale
 - d. pencil

5. Which type of leveling tool is used to check walls for plumb and is hung from a string?
- plumb
 - chalk line
 - string line
 - level line
6. Which shop tool can be used to rip materials, make miter cuts and grooves?
- circular saw
 - chop saw
 - table saw
 - jointer
7. Which tool is often kept on a carpenter's belt and is used to take measurements?
- chalk line
 - plumb Bob
 - speed square
 - pull-push rule
8. The term level refers to the_____.
- horizontal plane
 - vertical plane
 - measure
 - both a and b
9. Which of these are manipulated by hand in doing carpentry work?
- tools
 - materials
 - equipment
 - hardware
10. Which of the following is a sawn timber?
- plywood
 - lumber
 - gravel
 - cement
11. Which of these is a steel hand tool with small sharp teeth used for sharpening or shaping?
- metal vise
 - steel file
 - chalk line
 - speed square
12. Which of these is an all-purpose knife used for cutting?
- metal vise
 - steel file
 - utility knife
 - chalk line
13. Which of these is a double screw clamp with wooden jaws and useful in furniture construction and repair?
- quick clamp
 - bar clamp
 - wood chisel
 - wood clamp
14. Which of these is a tool used to put in crosshead screws?
- Philips head screwdriver
 - architect ruler
 - flat head screw
 - ball peen hammer
15. Which carpenter's tool is used to drive and pull-out nails?
- claw hammer
 - sawhorse
 - rubber hammer
 - tack hammer

Lesson

1

Identifying Materials and Tools for a Task



What's In

Hi! How are you today? Welcome to a new learning opportunity. How do you feel that you are to become a skilled carpenter? Do you have tools and materials for carpentry in your home? In this lesson, you will know how to describe the different tools and materials used in the carpentry. They are the basic construction tools and materials that a carpenter needs to build a house or furniture that makes your family safe and comfortable.

You will also be guided on how to prepare the tools and materials for a task. Your house was built using tools and materials available in your locality. Can you see it around? Are you able to identify them? Do you know how to use them? Great job!



Notes to the Teacher

This module contains engaging activities where learners could do at their own pace. Guide the learners to do the learning tasks in the allotted time. Remind the learners to have fun while learning. Remind the parents as well to supervise or monitor their children while learning using this module.



What's New

Activity 1: Supply Me!

How did you find your lesson so far? How many tools were you able to identify and use? At this time, this lesson will give you a clear understanding on how to identify such materials and tools used in carpentry. Also, you will be able to know their specific uses.

Directions: In each item, supply the missing letters to form a new word. Write your answers in your activity sheet.

1.	T			L	S					
2.		E		C				L		
3.	R				R					
4.		A	T	E						S
5.	L		N	E						
6.			S	K						
7.	L			B			R			
8.	C		M				T			
9.	H		R	I					A	L
10.	C	A			E	N		E	R	

How did you find your lesson so far? At this time, the lesson will give you clear understanding on how to identify materials and tools in carpentry including specific jobs and their uses.



What is It

Description of Tools and Materials

In this lesson, you are now ready to describe materials and tools according to their job description. Also, you will describe the materials and tools according to their description per job requirement in carpentry.

Materials

Sand - fine gritty, substance found in the shore and desert.

Plywood - thin cross laminated sheet of wood.

Gravel - coarse aggregate of any hard-inert material mixed with cement to form a concrete.

Lumber - wooden boards or logs that have been sawn.

Nails - made of metal used for fastening woods.

Cement - a powdered substance which when mixed with water acts as binder of aggregate.

Water - added in the mixture of cement and aggregate.

Reinforcing steel bar - used to reinforce the strength of construction works.

Corrugated Galvanized Iron Sheet - used for roofing.

Tools:

Plumb-bob - used for vertical alignment.

Try square - used to test the squareness of a stock.

Hack saw - fine toothed saw used to cut metals and pipes.

Level Bar/Spirit bar - tool used in checking vertical and horizontal position.

Pull-push rule - used for measuring long distances.

Claw hammer - used for driving and pulling out nails.

Shovel - used for mixing aggregates, cement, and water.

Cross-cut saw - tool used for cutting across the grain.

Ripsaw - used for cutting wood along the grain.

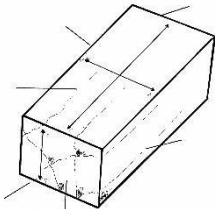
Twister - used to tighten the tie wire.

Combination pliers - used to cut tie wires.

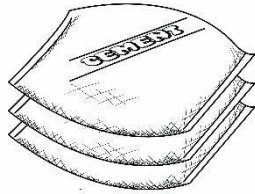
Did you enjoy reading? Great! Have you learned the different materials and tools in carpentry? Good job! Now, let us continue the learning adventure in the next lesson.

Materials and Tools Used for Carpentry

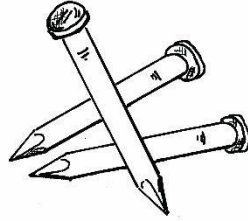
Materials



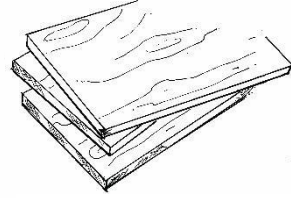
Lumber



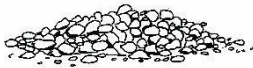
Cement



Nails



Plywood

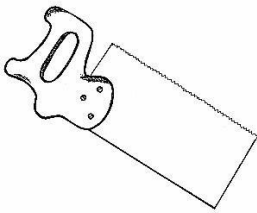


Gravel

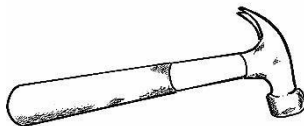


Sand

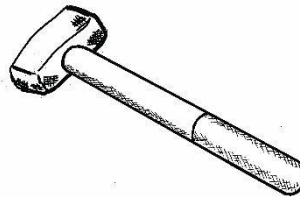
Tools



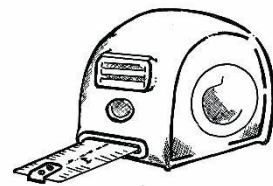
Hacksaw



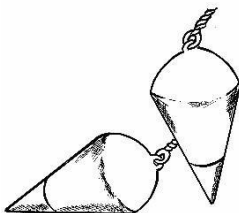
Claw Hammer



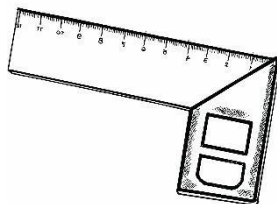
Mallet



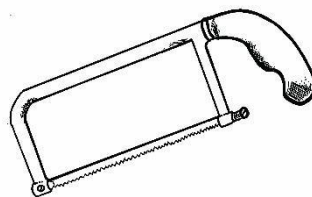
Pull-push rule



Plumb bob



Try square



Hack saw



Spirit Level/Level Bar

These are the illustrations of the different materials and tools used in carpentry. Now that you know them already and their description, do you know how to prepare and to use them? If not, you do not need to worry. The next lesson will be your guide on how to prepare these tools and materials in various tasks that you're going to do.

Prepare Tools and Materials for a Task

In doing a carpentry work, you must be able to do the following preparatory skills:

Prepare Tools and Materials

Steps on Preparing Tools and Materials
1. Identify materials and tools applicable to a specific job requirement.
2. Describe tools and materials needed following the specific job requirements.
3. Count materials and tools according to job requirements.

In preparing the tools and materials for a task it is essential to identify first the materials, secure the requisition materials, and receive and inspect them.

Information Sheet 2.1

Prepare Tools and Materials

Steps	Things to remember
1. Identify materials	<ul style="list-style-type: none">a. Identify materials and tools applicable to a specific job requirement.b. Count the description of the materials needed following the specific job requirements.c. Identify materials and tools according to the job requirements.
2. Secure requisition of materials	<ul style="list-style-type: none">a. Request the needed materials and tools according to the prepared list.b. Follow the company standard operating procedures (SOP)c. Provide substitute materials and tools without sacrificing cost and quality of work.
3. Receive and Inspect Materials	<ul style="list-style-type: none">a. Inspect materials and tools issued according to numbers and specifications.b. Check materials, tools, and accessories for damages according to enterprise procedures.c. Place the materials and tools in an appropriate location nearest to workplace.

Information Sheet 2.2

Secure Requisition of Materials

In this lesson you will be guided how to accomplish the form to acquire or purchase the materials.

Procedure:

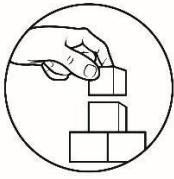
1. State the name of the carpentry project and date when you request for the materials.
2. Fill in the classification of the carpentry project and its purpose.
3. Write the number of required materials.
4. List the unit of the materials to be requested.
5. Enumerate the materials with their description.
6. List the cost per unit and the total cost.
7. Write your name as requisitioner.
8. Secure the approval of authorities concerned.

Information Sheet 2.3

Acquire and inspect materials/tools

It is important to inspect and check materials and tools for defects and damage before receiving them so that you can ask for replacements for those that you found defective.

1. Check if the materials and tools are complete in terms of quantity and specification (number of pieces, length, width, etc.)
2. Check the physical condition of tools, (check tools against the specification, quantity, and quality,) see to it that parts are complete, cutting edges or tooth free from damages,
3. Check the accessories of each material and tool. See to it that nothing is missing.
4. If any of the materials or tools is found missing or defective, report it immediately to the supply officer or teacher.
5. Get a replacement for the materials and tools found defective.
6. Sign the requisition form as you receive materials and tools.
Store the received materials and tools in a safe area or storeroom nearest your workplace. This should be in proper order: bulky and heavier materials at the bottom and lighter and smaller items on top of the pile.
7. Always handle the materials and tools carefully. Avoid dropping the tools on the floor, do not expose tools and materials on sunlight or rains.



What's More

Activity 2. Check Me!

Since you are now familiar with the names of tools and materials in carpentry, you are getting better to becoming a carpenter. This time be excited of the next activity ahead of you. Let us see if you have already knowledge on how to prepare tools and materials for a given task.

Directions: Classify the following whether they are tools or materials in carpentry by putting a check (✓) on the column provided. Write your answers in your activity sheet.

	Tools	Materials
1. Claw hammer		
2. Sand		
3. Pull-push rule		
4. Cement		
5. Gravel		
6. Hacksaw		
7. Lumber		
8. Twister		
9. Shovel		
10. Plywood		



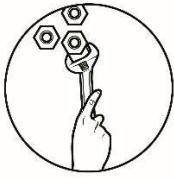
What I Have Learned

Activity 3. Search me in the Puzzle!

In this activity, search ten (10) materials and tools in the word search puzzle. Write your answers in your activity sheet. Ready, set, and search!

C	N	G	P	R	L	P	X	R	H	P	M	H	R	G
L	W	X	A	S	C	E	J	D	Y	C	J	U	B	W
P	M	O	W	U	A	L	V	H	W	X	K	D	T	A
V	T	G	P	N	Z	E	A	E	S	D	Q	J	N	S
S	H	O	V	E	L	Q	R	W	L	Z	Y	D	E	K
I	S	W	F	D	G	A	R	R	H	B	R	X	M	C
W	A	T	E	R	U	E	E	O	Q	A	A	Y	E	A
E	N	W	A	Q	B	T	P	N	Y	Z	M	R	C	H
Q	D	L	S	M	S	L	A	L	X	O	W	M	S	A
H	N	Y	U	I	Z	I	E	K	U	P	E	F	E	L
D	R	L	W	B	L	U	C	V	W	M	L	O	T	R
T	B	T	O	S	P	R	I	P	A	H	B	Q	D	V
P	D	P	L	Y	W	O	O	D	F	R	D	B	N	S
I	U	C	R	I	P	S	A	W	Z	Q	G	J	O	Z
T	A	S	T	E	E	L	B	A	R	H	D	C	U	B

Have you searched the words such as lumber, nails, sand, plywood, gravel, water, steel bar, plumb bob, try square, hacksaw, level bar, pull-push rule, claw hammer, shovel, cross-cut saw, rip saw, twister, combination pliers, cement, and galvanized iron? If you found them, you are doing very well. Great job!



What I Can Do

Activity 4. Describe Me!

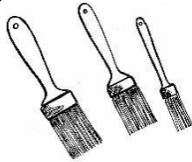
Since you are now familiar with the names of tools and materials in carpentry, you are getting better to becoming a carpenter. This time be excited of the next activity ahead of you.

Directions: Complete the table by giving the uses of different tools and materials used in carpentry. Write your answers in your activity sheet.

Materials/Tools	Uses
1. Ripsaw	
2. Twister	
3. Cross-cut saw	
4. Nails	
5. Combination Pliers	
6. Hacksaw	
7. Try square	
8. Corrugated Galvanized Iron Sheet	
9. Level bar	
10. Claw hammer	

Activity 5. Draw me, car-PAINTER!

This is a continuation of the previous activity you have done. Draw a total of five tools and materials you have learned in the previous activity. Draw them in your activity sheet.



Draw ME!

Wow! Great job! You are truly an artist in carpentry. It is a much-needed skill you can use to become a successful carpenter.

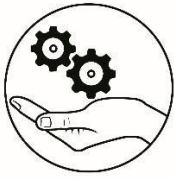


Assessment

Directions: Choose the letter of the best answer. Write the chosen letter in your activity notebook.

1. Which tool/material is used for roofing?
 - a. plywood
 - b. gravel
 - c. corrugated Galvanized Iron Sheet
 - d. nails
2. Which is added in the mixture of cement and aggregate?
 - a. sand
 - b. water
 - c. shovel
 - d. gravel
3. Which of the following is made of metal used for fastening woods?
 - a. plywood
 - b. twister
 - c. nails
 - d. sand
4. Which is used to cut tie wires?
 - a. plumb Bob
 - b. ruler
 - c. combination pliers
 - d. twister
5. Which is a fine-toothed saw used to cut metal and pipes?
 - a. Cross-cut-saw
 - b. Hacksaw
 - c. Ripsaw
 - d. Try square
6. Which is used to cut wood along the grain?
 - a. circular saw
 - b. rip saw
 - c. claw hammer
 - d. cross-cut-saw
7. Which is used for measuring long distances?
 - a. level bar
 - b. push-pull-rule
 - c. plumb-bob
 - d. try square
8. Which is used to test the squareness of a stock?
 - a. try square
 - b. level bar
 - c. pull-push-rule
 - d. claw hammer
9. Which is a coarse aggregate?
 - a. sand
 - b. gravel
 - c. cement
 - d. nails
10. Which is a fine gritty, substance found in the shore and desert?
 - a. gravel
 - b. sand
 - c. water
 - d. cement

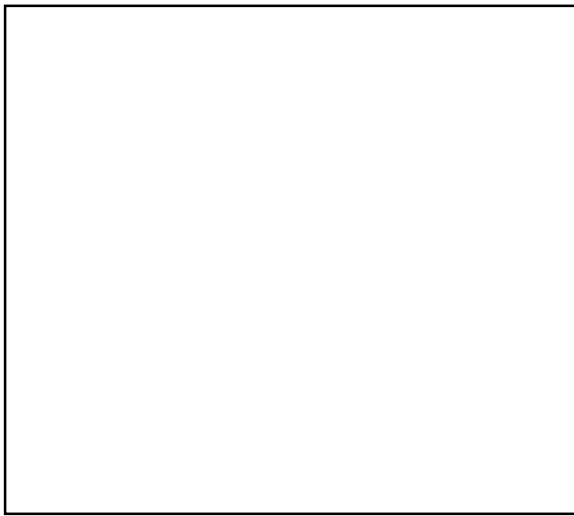
11. Which of the following is a powdered substance which when mixed with water acts as a binder of aggregate?
- a. cement
 - b. nails
 - c. sand
 - d. water
12. Which is used to check vertical alignment?
- a. try square
 - b. level bar
 - c. plumb bob
 - d. twister
13. Which of the following tools is used to check vertical and horizontal positions?
- a. level bar
 - b. shovel
 - c. ripsaw
 - d. claw hammer
14. Which is used for mixing aggregate, cement, and water?
- a. shovel
 - b. cement
 - c. hacksaw
 - d. nails
15. Which is used for cutting wood across the grain?
- a. push-pull-rule
 - b. combination pliers
 - c. twister
 - d. cross-cut-saw



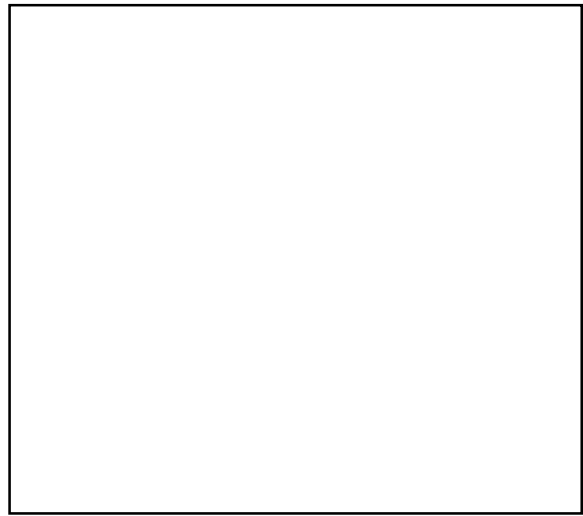
Additional Activities

Do you want more challenge? Try this activity to measure how you mastered this lesson. Go ahead!

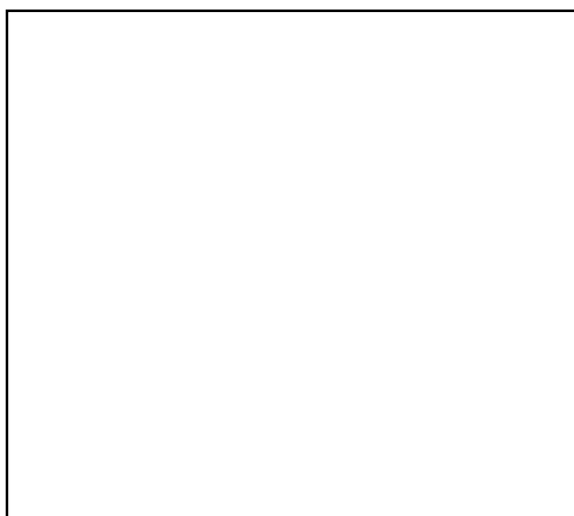
Let's end this lesson by doing something new. You will draw the different materials and tools in carpentry and write their uses. Are you ready to draw some tools and materials you have learned today? Test your ability through drawing. Use the boxes given below and supply the uses of each tools and materials. Do this in your activity sheet.



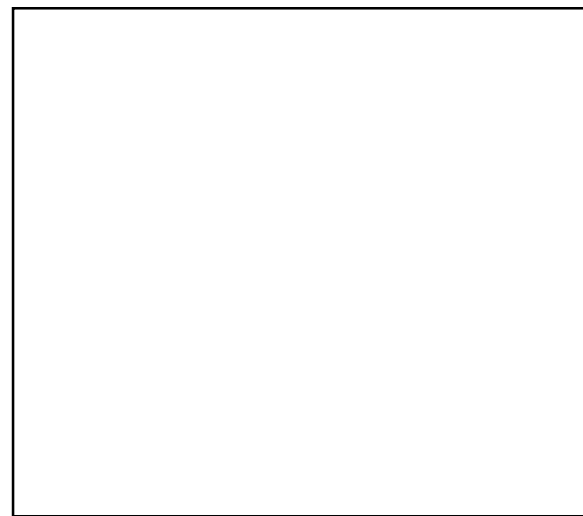
Uses: _____



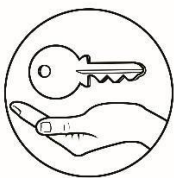
Uses: _____



Uses: _____



Uses: _____



Answer Key

<p>Assessment</p> <ol style="list-style-type: none"> 1. C 2. B 3. C 4. C 5. B 6. B 7. B 8. A 9. B 10. B 11. A 12. C 13. A 14. A 15. D 	<p>What Can I Do</p> <ol style="list-style-type: none"> 1. Cut along the grain 2. Tighten the wire 3. Cut across the grain 4. To fasten the woods 5. Cut tie wires 6. Cut metal and pipes 7. Test squareness 8. Used for roofing 9. Check vertical and horizontal position 10. Driving and pulling out nails 	<p>What I Have</p> <p>Learn</p> <ol style="list-style-type: none"> 1. Steel bar 2. Lumber 3. Nails 4. Plywood 5. Gravel 6. Try square 7. Ripsaw 8. Twister 9. Cement 10. Galvanized iron
<p>What's More</p> <ol style="list-style-type: none"> 1. Tools 2. Materials 3. Tools 4. Materials 5. Materials 6. Tools 7. Materials 8. Tools 9. Tools 10. Materials 	<p>What's New</p> <ol style="list-style-type: none"> 1. Tools 2. Pencil 3. Ruler 4. Materials 5. Line 6. Task 7. Lumber 8. Cement 9. Horizontal 10. Carpenter 	<p>What I Know</p> <ol style="list-style-type: none"> 1. C 2. B 3. A 4. D 5. A 6. A 7. D 8. B 9. A 10. B 11. B 12. C 13. D 14. A 15. A

References

- Manuel, Fely L. and Dr. Orlando E. Manuel. *K to 12 Basic Education Curriculum Technology and Livelihood Education Learning Module: Carpentry Exploratory Course Grade 7 and Grade 8*. Pasig: Department of Education, 2016.
- The Technical Education and Skills Development Authority (TESDA). *Training Regulations/ Carpentry NC II, Civil Works (Construction Sector)*.
- T.L.E. Learning Module, <https://gltnhs-tle.weebly.com/lesson-11.html>.

For inquiries or feedback, please write or call:

Department of Education - Bureau of Learning Resources (DepEd-BLR)

Ground Floor, Bonifacio Bldg., DepEd Complex
Meralco Avenue, Pasig City, Philippines 1600

Telefax: (632) 8634-1072; 8634-1054; 8631-4985

Email Address: blr.lrqad@deped.gov.ph * blr.lrpd@deped.gov.ph