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SCHOOLS DIVISION OF NEGROS ORIENTAL
REGION VII

Kagawasan Ave., Daro, Dumaguete City, Negros Oriental



TLE-IA-CARPENTRY

Quarter 3 – Module 4 (Week 7 to 8)

PROCEDURE IN ASSEMBLING AND DISASSEMBLING METAL SCAFFOLDING



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TLE-IA-Carpentry 10
Alternative Delivery Mode
Quarter 3 – Module 3: PROCEDURE IN ASSEMBLING AND DISASSEMBLING
METAL SCAFFOLDING
First Edition, 2020

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TLE-IA-CARPENTRY

Quarter 3 – Module 4: PROCEDURE IN ASSEMBLING AND DISASSEMBLING METAL SCAFFOLDING



Introductory Message

For the facilitator:

Welcome to the TLE-IA-CARPENTRY (Grade 10) Alternative Delivery Mode (ADM) Module on PROCEDURE IN ASSEMBLING AND DISASSEMBLING METAL SCAFFOLDING.

This module was collaboratively designed, developed and reviewed by educators both from public and private institutions to assist you, the teacher or facilitator in helping the learners meet the standards set by the K to 12 Curriculum while overcoming their personal, social, and economic constraints in schooling.

This learning resource hopes to engage the learners into guided and independent learning activities at their own pace and time. Furthermore, this also aims to help learners acquire the needed 21st century skills while taking into consideration their needs and circumstances.

In addition to the material in the main text, you will also see this box in the body of the module:



Notes to the Teacher

This contains helpful tips or strategies that will help you in guiding the learners.










As a facilitator, you are expected to orient the learners on how to use this module. You also need to keep track of the learners' progress while allowing them to manage their own learning. Furthermore, you are expected to encourage and assist the learners as they do the tasks included in the module.



For the learner:

Welcome to TLE-IA-CARPENTRY (Grade 10) Alternative Delivery Mode (ADM) Module on PROCEDURE IN ASSEMBLING AND DISASSEMBLING.

This module was designed to provide you with fun and meaningful opportunities for guided and independent learning at your own pace and time. You will be enabled to process the contents of the learning resource while being an active learner.

This module has the following parts and corresponding icons:

 <i>What I Need to Know</i>	This will give you an idea of the skills or competencies you are expected to learn in the module.
 <i>What I Know</i>	This part includes an activity that aims to check what you already know about the lesson to take. If you get all the answers correct (100%), you may decide to skip this module.
 <i>What's In</i>	This is a brief drill or review to help you link the current lesson with the previous one.
 <i>What's New</i>	In this portion, the new lesson will be introduced to you in various ways; a story, a song, a poem, a problem opener, an activity or a situation.
 <i>What is It</i>	This section provides a brief discussion of the lesson. This aims to help you discover and understand new concepts and skills.
 <i>What's More</i>	This comprises activities for independent practice to solidify your understanding and skills of the topic. You may check the answers to the exercises using the Answer Key at the end of the module.
 <i>What I Have Learned</i>	This includes questions or blank sentence/paragraph to be filled in to process what you learned from the lesson.
 <i>What I Can Do</i>	This section provides an activity which will help you transfer your new knowledge or skill into real life situations or concerns.
 <i>Assessment</i>	This is a task which aims to evaluate your level of mastery in achieving the learning competency.

 <i>Additional Activities</i>	In this portion, another activity will be given to you to enrich your knowledge or skill of the lesson learned.
 <i>Answer Key</i>	This contains answers to all activities in the module.

At the end of this module you will also find:

References

This is a list of all sources used in developing this module.

The following are some reminders in using this module:

1. Use the module with care. Do not put unnecessary mark/s on any part of the module. Use a separate sheet of paper in answering the exercises.
2. Don't forget to answer *What I Know* before moving on to the other activities included in the module.
3. Read the instruction carefully before doing each task.
4. Observe honesty and integrity in doing the tasks and checking your answers.
5. Finish the task at hand before proceeding to the next.
6. Return this module to your teacher/facilitator once you are through with it.

If you encounter any difficulty in answering the tasks in this module, do not hesitate to consult your teacher or facilitator. Always bear in mind that you are not alone.

We hope that through this material, you will experience meaningful learning and gain deep understanding of the relevant competencies. You can do it!



What I Need to Know

This module **covers Metal scaffoldings and their types**. That will help the students to learn about metal scaffoldings and how to assemble and disassemble this type of scaffolding.

After going through this module, you are expected to:

- Prepare work areas for safe laying out and assembling of scaffolds and braces.
- Assemble scaffolds and braces safely and securely.
 - Free of Interference
 - Properly balance
- Secure connectors, locks and screws.
- Select appropriate Personal Protective Equipment (PPE)



What I Know

A. True or False

Direction: Write the word True if the statement is correct and write False if it is incorrect.

1. The right way to check the platform is to climb over the top of the frame ladder and not to swing the side frame.
2. To make the platform become level, position the braces with the same height as of the frames.
3. Improper assembly or use of scaffolding is not dangerous because it may not result in serious injury or death.
4. Using ladder or makeshift devices on top of scaffolds to increase the height is prohibited.
5. Move the mobile scaffold by pushing it on the top of the frame.

Lesson 1

PROCEDURES IN ASSEMBLING AND DISASSEMBLING METAL SCAFFOLDING



What's In

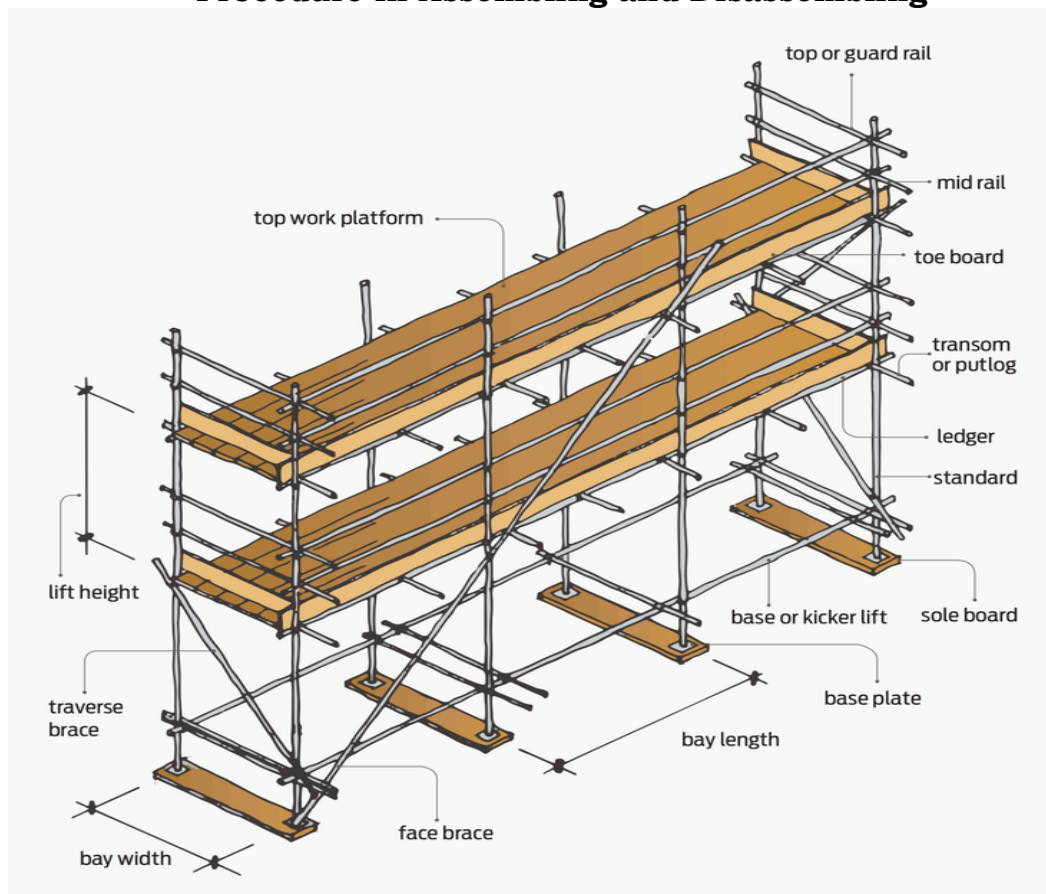
Write your answers in your notebook.

1. What are the different parts of the metal scaffolding?
2. What are the different types of the metal scaffolding?



What's New

Procedure in Assembling and Disassembling



Metal Scaffolds are temporary structures outside of a building, that are made of metal poles with planks used by workers while constructing, repairing, or cleaning the building.

Metal scaffolding can be used for different purposes in different construction activities. It is commonly used as the supporting scaffolding in a falsework system. Collapse of falsework due to reasons such as insufficient strength to carry the imposed loads or inadequacy in design and construction frequently occurs and has inflicted heavy casualties to workers working on it.

Scaffolding is often a necessary part of building and home maintenance. Set up scaffolding properly to make sure you and anyone else using the equipment stay safe. An oversight in erecting scaffolding could lead to a serious accident. Setting up scaffolding is an alternative to using ladders. A benefit of using scaffolding is the larger work area and mobility it offers over that of a ladder. It provides a platform for walking and for setting all your tools. This cut work time drastically.



What Is It

Assembling of Metal Scaffolding

Procedures:

1. **Select a secure foundation on which to build and set your scaffold.** Obtain mud sills or base plates to attach the scaffolding to make the footing more stable. One of the main concerns here is to have the scaffolding level and on secure ground. If you are on unlevel ground, you may need to dig down to make the dirt level in any high corner. Also, use the adjusting screws on the scaffolding to level the structure. If the surface is on a drastic slope, obtain leg extensions.
2. **Option for casters.** If you plan on moving your scaffolding to work on various spots, include casters in your scaffolding setup. Remember to lock the casters when you get it into place.
3. **Assemble the scaffolding frame.** Lay out the ends of the scaffolding. Lift one end piece, and attach the upper cross brace. The far end of this brace should support the end piece while you lift the second end piece and attach its upper cross brace. Secure the ends of the cross braces to the bottom of the opposite end frame.
4. **Make sure the scaffold is stable.** Move the scaffold into your desired position, and make sure it is level and secure.
5. **Place the planks.** Lift the planks through the scaffold bars and into place. Hardware should be included to fasten the planks into place.
6. **Secure access to the scaffold.** If ladders are used to access the scaffold, use ones that are designed for that specific scaffold. Stair-like ladders can be used to access the scaffold but must have handrails and treading. A concern with the access point is to make it safe to maneuver and to prevent the scaffold from tipping over.

7. **Attach the guardrails.** Guardrails are highly recommended for all scaffolding due to the height of the equipment and the risk of falls. Also consider using tie offs and other fall protection.
8. **Inspect the scaffolding to ensure safety.** Thoroughly examine the scaffolding setup to make sure all pieces are secure. Reinspect the scaffold system every time you leave the site and return to it to make sure it is still safe.
9. **Finished.**

Disassembling of Metal Scaffolding

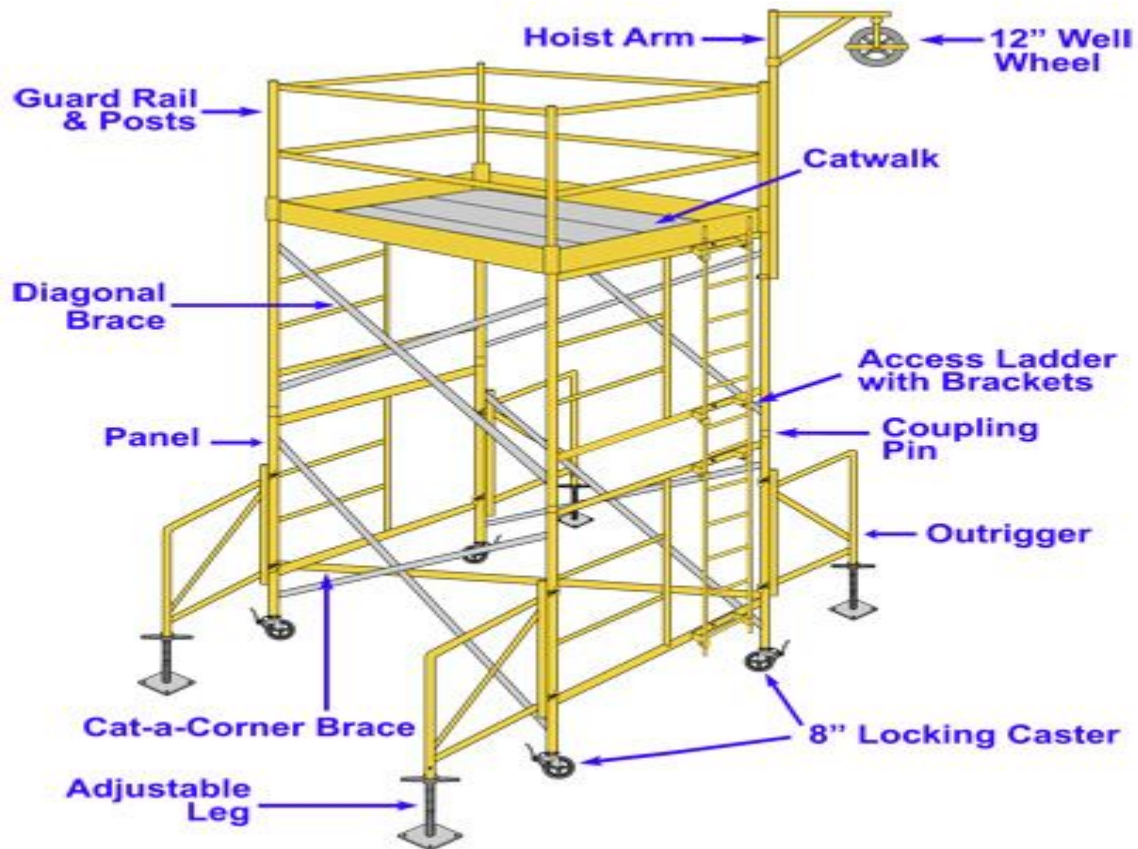
1. First, unclip or unlock the top scaffolding bars. Remember, you are looking in steps that are the reverse of assembly.
2. Unclip or pull off diagonal braces.
3. Pull down the platform. You may need assistance with this step as the platform may be heavy.
4. Unlock the next set of vertical scaffolding. Continue to work down the scaffolding until you reach the bottom.
5. Pull foot pads off the bottom of scaffolding.

Tips and Warnings

- Tie-out strings can be used to secure scaffolding but should not be used to brace diagonal bars.
- In most cases, you will need assistance from another person to help you with both assembly and disassembly.
- Contact your local building or zoning department to see if there are any special requirements after a certain height; for instance, in California anything over 7 feet high requires extra guardrails to be installed.
- If the scaffolding will be of a substantial height, wear a helmet and a harness for safety.



What's More



The following are the different parts of the mobile scaffolding.

Guard rail	catwalk	diagonal brace	cat-a-corner brace	panel
Caster	outrigger	coupling pin	access ladder.	Hoist arm

If you're the one assigned to assemble this scaffolding, which is the first down to the last you are going to touch?

Arranged the following in the box from 1 to 10. Start from which one is the first down to the last you think.

Write your answer in your activity notebook.



What I Have Learned

Write your answer in your activity notebook

What do you think is the importance of the written procedure in assembling and dismantling of metal scaffoldings?



What I Can Do

Search and cut pictures of the different metal scaffoldings with its different parts and function. Paste in a short bond paper and put it in a folder. Apply your creativity.

Criteria:

Content	10
Creativity	5
Neatness	5
Total	20 points



Assessment

A. Fill in the blanks.

Direction: Fill in the blanks with the correct word or group of words to make the sentence correct.

1. First, unclip or _____ the top scaffolding bars.
2. Unclip or pull off diagonal _____.
3. Unlock the next set of vertical scaffolding. Continue to work down the scaffolding until you reach the _____.
4. _____ the platform. You may need assistance with this step as the platform may be heavy.
5. Pull foot pads _____ the bottom of scaffolding.
6. Tie-out strings can be used to secure scaffolding but should not be used to brace the _____.

7. In most cases, you will need assistance from another person to help you with both _____ and _____.
8. Contact your local building or zoning department to see if there are any special requirements after a certain _____.
9. If the scaffolding will be of a substantial height, wear a _____
10. _____ and a harness for safety.

B. Enumerate the procedures/steps in assembling metal scaffolding.



Answer Key

- | | |
|--|---|
| <p>A. Assessment</p> <ol style="list-style-type: none"> 1. Unlock 2. Braces 3. Bottom 4. Pull down 5. Off 6. Diagonal braces 7. Assembly 8. Disassembly 9. Height 10. Helmet | <p>B.</p> <ol style="list-style-type: none"> 1. Select a secure foundation on which to build and set your scaffold. 2. Opt for casters 3. Assemble the scaffolding frame 4. Make sure the that scaffold is stable 5. Place the planks 6. Secure access to the scaffold 7. Attach the guardrails 8. Inspect the scaffolding to ensure safety 9. Finished |
|--|---|

- What I Know**
1. False
 2. True
 3. False
 4. False
 5. False

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