

LADDER SELECTION AND USE FACT SHEET

LENGTH: 15 MINUTES

PRODUCTION YEAR: 2026

PROGRAM SYNOPSIS:

Ladders are used to reach elevated areas in just about every type of job, industry, and environment, as well as at home. While there are many types of ladders and countless types of jobs performed with these valuable tools, the basic safety rules are similar for all ladders. This program discusses ways to choose an appropriate ladder, how to inspect it, the proper way to climb the ladder, and how to avoid injuries while working on a ladder.

PROGRAM OBJECTIVES:

After watching the program, the participant should be able to explain the following:

- Select the correct ladder based on the task;
- How to inspect a ladder before use;
- The safe way to transport and place a ladder;
- The differences between a step and extension ladder;
- How to ascend and descend a ladder safely;
- Safe practices while working on a ladder;
- Ways that people intentionally misuse ladders and why they should be avoided.

INSTRUCTIONAL CONTENT:

LADDER SELECTION AND USE: OVERVIEW

- Ladders are used to reach elevated areas in just about every type of job, industry, and environment, as well as at home.
- The greatest risk faced by workers using a ladder is falling. Falling from a ladder is one of the leading causes of fatalities each year.
- While there are many types of ladders and countless types of jobs performed with these valuable tools, the basic safety rules are similar for all ladders.
- Before doing anything with a ladder, make sure you have selected the correct ladder for the job: one that is tall enough to safely reach the work and strong enough to support the working load. The working load is the combined weight of your body and the work materials to be used while on the ladder.
- Since ladders may become damaged with use, you should conduct a thorough inspection of the ladder's condition before using it. Never use a damaged or defective ladder.
- Before transporting a ladder to the work area, make sure it is in the fully closed position. Carry the ladder parallel to the ground by holding the side rail in the middle of the ladder.
- If a ladder is long and heavy, it is best to have two people to carry it safely.
- When arriving in the work area, the ladder should be set up on a solid, level surface.
- When setting up a step ladder, make sure it is fully open and make sure the spreader bars are locked. All four feet should contact the floor or ground to give the ladder a stable base of support.
- To ensure a stable base of support for a straight ladder or extension ladder, it should be placed one foot away from the wall for every four feet the ladder rises. For example, if the ladder contacts the wall at twelve feet, the feet of the ladder should be placed three feet from the wall.
- When using the ladder to access a higher elevation, it should extend three feet higher than the surface being accessed and be tied off securely.
- Always face the ladder squarely and maintain three points of contact when climbing or descending by always having one hand and two feet or two hands and one foot on the ladder.

- Do not carry tools or other items in your hands while climbing a ladder.
- While on any ladder, do not lean beyond the side rails. While on a step ladder, never stand on the top two steps.
- A large percentage of injuries occur when ladders are intentionally misused. Do not use a ladder as a platform or scaffold. Ladders are only designed for vertical applications and should never be used in a horizontal position. Do not use a folded-up step ladder as a substitute for a straight ladder.
- Never “walk” or “bounce” the ladder to move it to another location, not even for a short distance. Climb down and move the ladder.

SELECTING THE CORRECT LADDER

- Before doing anything with a ladder, make sure you have selected the correct ladder for the job.
- The two most common types of ladders are the step ladder and the straight ladder. Straight ladders can be a single ladder or an extension ladder that can be adjusted for additional height.
- Most step and straight ladders are made from wood, fiberglass, or aluminum. Because aluminum ladders conduct electricity, they should never be used while performing electrical work or where they may encounter live electrical parts.
- Wooden ladders may contain hard-to-spot weaknesses and defects, especially if the ladder has been painted. This is why you should never paint a wooden ladder and always inspect them thoroughly before use.
- Another important consideration is the length of the ladder needed. When selecting a ladder, make sure the ladder is long enough to reach the height you need and allows you to work comfortably.
- Make sure the ladder is sturdy and strong enough to support the working load. The working load is the combined weight of your body and the work materials to be used while on the ladder.
- Ladders are classified by duty ratings. A duty rating can be found on the ladder and indicates the working load it can safely support.
- Consider whether using a ladder is the proper way to perform your task. If you are going to use heavy or awkward materials or tools, or if you will need to move from side to side, you should use a scaffold or aerial work platform instead of a ladder.
- Only use ladders approved by your company when performing any job. If you have any questions about the appropriate equipment for your job, ask your supervisor.

INSPECTING THE LADDER BEFORE USE

- Ladders may become damaged with use, so you should conduct a thorough inspection of the ladder’s condition before using it.
- Check the side rails for cracks, dents, fractures, and other defects. Check for loose or damaged rungs and braces. Be sure to clean off any slippery substances you discover on these parts. Also, make sure that screws, bolts, hinges, rivets, and other hardware aren’t loose or missing.
- When using a step ladder, make sure the spreaders are in good condition and can be locked into place.
- Ensure the ladder’s feet are intact and functional. The slip-resistant pads on the feet should be secure. These rubber pads keep the ladder from slipping when erected on a smooth, firm surface.
- On extension ladders, there is a rope and pulley system designed to help extend the ladder. Make sure the rope and pulley function properly and the rope is not cut, frayed, or otherwise damaged.
- No matter what type of ladder you are using, make sure it isn’t warped or bent.
- If a ladder has any of these or other defects, don’t use it. Get another ladder and mark the damaged ladder out of service so it can be disposed of properly and not be used by others.

TRANSPORTING & PLACING THE LADDER

- Ladders need to be transported safely to the work area to be useful. When carrying step ladders or extension ladders, make sure they are in the fully closed position. Carry the ladder parallel to the ground. Hold the side rail in the middle of the ladder so you can balance it.

- Don't drag a ladder on the ground or pavement. This can damage the feet and pads.
- If a ladder is long and heavy, it is best to have two people to carry it safely.
- Be aware that the ladder itself may present a hazard to others and proceed with caution.
- When arriving in the work area, scan the area for potential hazards before placing the ladder. Make sure the planned work area is uncluttered and free of tripping hazards.
- Be particularly aware of overhead power lines or other exposed live electrical parts. Stay at least 10 feet away from any electrical sources unless you are authorized to work in the area and have taken all the necessary safety precautions.
- Evaluate the area for both vehicle and pedestrian traffic. When ladders must be placed in a high-traffic area, barricades should be placed to prevent collisions and protect pedestrians from falling objects. Alternatively, a person can be assigned to stand watch and direct traffic away from the immediate area around the ladder.
- Be aware that using a ladder near a doorway can be hazardous and should be avoided. If blocking a doorway is unavoidable, lock the door if possible and have a coworker stand watch.
- The surface on which you plan to place the ladder should be solid and level.

SETTING UP A STEP LADDER

- A step ladder should be placed on a solid, level surface.
- Make sure the step ladder is fully open and press down on each spreader bar to ensure it is fully deployed and locked. All four feet of a step ladder should make solid contact with the floor or ground to give the ladder a stable base of support.
- Don't attempt to use a step ladder that is folded and leaned against a structure. A step ladder's feet are not designed for this type of use and are likely to slip.
- For additional stability, a step ladder can be tied off to a sturdy, immobile object with a rope or stabilizing strap.
- Whenever possible, step ladders should be positioned so you are able to face the ladder while working.

SETTING UP AN EXTENSION LADDER

- The feet of an extension ladder should be placed on a solid, level surface.
- If the soil or surface isn't firm, a flat board can be placed underneath the feet of the ladder to keep it stable. The board should be in good condition and large enough to provide adequate stability and support.
- The extension ladder should be placed one foot away from the wall for every four feet the ladder rises. For example, if the ladder contacts the wall at twelve feet, the feet of the ladder should be placed three feet from the wall. This creates approximately a 75-degree angle between the ladder and the ground.
- A practical way to ensure a proper ladder angle is to stand with your feet near the base of the ladder. Holding your arms straight out, the ladder's side rails should fit into the palm of your hands.
- If you can't reach the side rails, the ladder's feet are too far from the wall. If your hands extend past the side rails, the ladder's feet are too close to the wall.
- For an extension ladder, the upper section can be raised by pulling the rope, lifting the ladder rung by rung. When you get it to the height you need, relax the rope so the upper section drops slightly and the locking hooks engage and lock securely.
- The upper and lower sections of an extension ladder should overlap at least three feet to provide stability. Ladders extended over 32 feet in length should overlap even more.
- When necessary, have someone hold the ladder for additional stability.
- When using the ladder to access a higher elevation, it should extend three feet higher than the surface being accessed and be tied off securely.
- The base of a ladder can also be secured to prevent slipping. Stakes or chocks can be placed behind the feet to prevent slipping. Also, the ladder's feet can be turned up or pivoted to allow the serrated edge to bite into the soil while outdoors.

- However, the rubberized flat side of the ladder's feet must be used on firm, smooth surfaces.

ASCENDING AND DESCENDING THE LADDER

- Make sure you're in proper condition to climb the ladder. Don't use a ladder if you are taking medication that could affect your balance, if you are not physically able to climb safely, or if you are afraid of heights.
- Do not climb a ladder when high winds, lightning, or other dangerous conditions are present.
- Before climbing, inspect your shoes for slippery substances and make sure your shoelaces are tied before stepping on the ladder.
- Place any required tools in a tool belt or arrange to have someone hand them to you once you reach your destination. Never climb while holding any object or load that may cause you to lose your balance and fall.
- Hauling tools and materials up with a rope is another way to avoid carrying objects while climbing.
- Always face the ladder squarely and maintain three points of contact when climbing by always having one hand and two feet or two hands and one foot on the ladder.
- Don't rush. Climb carefully and intentionally. Hurrying can cause the ladder to shake and lose stability.
- When your work is complete, descend the ladder in the same way you climbed it, facing the ladder and maintaining three points of contact.
- When descending an extension ladder, be extra cautious where the dual rungs turn into single rungs. This is a common area for falls.
- Never leave a ladder set up and unattended. Once you have reached the ground, take the ladder to its approved storage area if you no longer need it.

STANDING & WORKING ON THE LADDER SAFELY

- While on any ladder, do not lean beyond the side rails. Your belt buckle should always stay between the two rails. If you can't reach your work while adhering to the belt buckle rule, climb down and move your ladder.
- Ladder manufacturers mandate never standing above the third rung from the top on a straight ladder, or on the top two steps of a step ladder.
- A safer rule of thumb is to keep your belt buckle at or below the very top of the ladder regardless of which step you are standing on. This simple rule also allows you to maintain three-point contact with the ladder while working.
- Standing too high makes it impossible to keep one hand on the ladder and reach your work.
- Also, when it's necessary to work briefly with two hands, keeping your waist below the top of the ladder allows you to use your body as a third point of contact, keeping you safe and stable. If you can't do this and comfortably reach your work, you may need a taller ladder.
- Only one person at a time should stand on or climb a ladder. The movements and weight of a second person can cause the ladder to become unbalanced or overload the ladder.
- Never leave tools on top of an unattended step ladder. They will likely fall onto anyone who attempts to move the ladder.

INTENTIONAL MISUSE OF LADDERS

- Many ladder-related deaths and injuries occur when safe work practices aren't followed, and a large percentage of these injuries occur when ladders are intentionally misused.
- Tying two ladders together to gain height is an all too frequent and dangerous practice which should never be attempted.
- Workers often "walk" or "bounce" a ladder by rocking it from side to side to move it to a new location. This is very dangerous. It's much easier and safer to climb down the ladder and reposition it.
- While a folded-up step ladder may look like a good substitute for a straight ladder, it's designed to rest on four feet; when used as a straight ladder, its feet do not sit squarely on the ground. There's a good chance the ladder's feet will slip when climbed.

- Another common mistake is attempting to use a chair, box, or other item in place of a ladder. Some people try to use pallets or lift truck forks when a ladder is required. These common errors result in thousands of injuries each year. Only use approved step stools or ladders to gain height.
- Do not use a ladder as a platform or scaffold. Ladders are only designed for vertical applications and should never be used in a horizontal position.

LADDER SELECTION AND USE

ANSWERS TO THE REVIEW QUIZ

1. a
2. a
3. a
4. a
5. b
6. a
7. a
8. a
9. b
10. b

LADDER SELECTION AND USE
REVIEW QUIZ

Name _____ **Date** _____

The following questions are provided to determine how well you understand the information presented in this program.

1. Since ladders may become damaged with use, you should conduct a thorough inspection of the ladder's condition before using it.
 - a. True
 - b. False

2. When using the ladder to access a higher elevation, it should extend three feet higher than the surface being accessed and be tied off securely.
 - a. True
 - b. False

3. Make sure the ladder is sturdy and strong enough to support the working load.
 - a. True
 - b. False

4. When using a step ladder, make sure the spreaders are in good condition and can be locked into place.
 - a. True
 - b. False

5. If a ladder is too long to manage, you can drag the feet of the ladder on the ground.
 - a. True
 - b. False

6. All four feet of a step ladder should make solid contact with the floor or ground to give the ladder a stable base of support.
 - a. True
 - b. False

7. An extension ladder should be placed one foot away from the wall for every four feet the ladder rises.
 - a. True
 - b. False

8. Always face the ladder squarely and maintain three points of contact when climbing by always having one hand and two feet or two hands and one foot on the ladder.
 - a. True
 - b. False

9. It is safe to stand on the top two steps of a step ladder to gain additional height.
 - a. True
 - b. False

10. A ladder can be used horizontally as a platform or scaffold when necessary.
 - a. True
 - b. False