TheSchoolBus

Ensuring the safe use of ladders

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When to use a ladder

Ladders can be used for working at height once a risk assessment has been completed. The assessment must show that using equipment offering a higher level of protection, e.g. scaffolding, is not necessary because of the low risk and short duration of the task, or if there is an existing feature of the workplace which cannot be altered. The HSE advises that if a task would require using a ladder or stepladder for longer than 30 minutes at a time, then users should consider alternative equipment. For a reference, ladders should only be used:

- On firm ground.
- On level ground.
- On clean, solid surfaces (e.g. paving slabs or floors). These need to be clean (e.g. no moss or leaves) and free of loose material (e.g. sand or packaging materials) so the feet can grip. Shiny floors can be slippery even without contamination.
- Where they will not be struck by vehicles protect the surrounding area with barriers or cones.
- Where they will not be pushed over by other hazards, e.g. doors or windows where possible, doors (fire exits excluded) and windows should be secured.
- When the general public are prevented from using the it, walking underneath it or being at risk because they are too near to it. To prevent the public from getting too close to the ladder, use barriers or cones or, as a last resort, someone should stand guard at the base.
- Where it has been secured.

Users do not need to undergo formal training to use a ladder, although it can help; however, they should be competent, i.e. have received adequate instructions and understand how to safely use the ladder. Where training is deemed necessary, users should work under the supervision of a competent individual.

A school's employer (e.g. the governing board in a maintained school) needs to ensure that any ladder or stepladder is suitable for the task and safe to use. As a guide, ladders and stepladders should only be used if they:

- Have no visible defects ladders should undergo a pre-use check before every use.
- Have an up-to-date record of the detailed visual inspections carried out regularly by a competent person. Checks should be undertaken in accordance with the

manufacturer's instructions. Ladders that are part of a scaffold system need to be checked every week as part of the scaffold inspection requirements.

- Are suitable for the intended use, i.e. are strong and robust enough for the job. The HSE recommends British Standard (BS) Class 1 'Industrial' or BS EN 131 ladders for use at work.
- Have been maintained and stored in accordance with the manufacturer's instructions

Ensuring safety

After making sure it is suitable to use a ladder for the task, users should carry out a pre-use check to ensure there are no defects. Pre-use checks should be carried out:

- By the user.
- At the beginning of the working day.
- After something has changed, e.g. a ladder has been moved from a dirty area to a clean area.

The pre-use check should review:

- **The stiles** these should be checked to ensure they are not bent or damaged, as any problems with the stiles could cause the ladder to buckle or collapse.
- **The feet** these should be checked because the ladder could slip if they are worn, missing or damaged. If users are moving the ladder from soft ground (e.g. soil or loose sand) to smooth ground (e.g. paving stones), they should ensure the foot material is clear of debris (e.g. soil or embedded stones) and is touching the ground.
- **The rungs** these should be checked to ensure they are not bent, worn, missing or loose. The ladder could fall if the rungs are compromised.
- **The locking mechanisms** these should be checked to mitigate the risk of the ladder collapsing, which could happen if the mechanism is broken, worn or damaged. Please note, not all ladders will be fitted with locking mechanisms.
- The stepladder platform this should be checked to determine whether the platform is split or buckled. Any splits or buckles could mean the ladder could become unstable or collapse.
- The steps or treads on stepladders these should be checked because if they are contaminated, they could be slippery. If the fixings on stepladders are loose, the ladder could collapse.

The dos and don'ts

After carrying out the pre-use checks, there are simple precautions that users can take to mitigate the risk of falling.

Leaning ladders

Do:

- Only carry light materials and tools read the manufacturer's instructions to help assess the risks.
- Make sure the ladder is long enough or high enough for the task.

- Make sure the ladder is at a 75-degree angle.
- Always grip the ladder and face the rungs while climbing or descending.
- Maintain at least three points of contact (e.g. a hand and both feet) with the ladder when climbing and working. Where this is not possible, e.g. when hammering a nail, users must take other measures to prevent a fall or reduce the consequences if one happened.
- Secure the ladder, e.g. by tying the ladder to prevent it from slipping outwards or sideways, and have a strong upper resting point, e.g. don't rest the ladder against guttering.
- Consider whether an effective stability device is required.

Don't:

- Overreach make sure your belly button stays within the stiles.
- Overload the ladder consider the user's weight and the equipment or materials they are carrying before they work at height.
- Attempt to move or extend the ladder while standing on the rungs.
- Work off the top three rungs try to make sure the ladder extends at least 1 metre above where the user is working.
- Stand the ladder on moveable objects, e.g. pallets, bricks or mobile work platforms.
- Hold items when climbing the ladder use a toolbelt where necessary.
- Work within 6 metres horizontally of any overhead power line, unless it has been made dead or it is protected with insulation. When carrying out electrical work, use a non-conductive ladder, e.g. made from fibreglass or timber.

Stepladders

Do:

- Check all four stepladder feet are in contact with the ground and that the steps are level.
- Only carry light materials and tools.
- Ensure any locking devices are engaged.
- Try to position the stepladder to face the work activity as opposed to working side-on, where possible. Where side-on loadings cannot be avoided, try to prevent the steps from tipping by tying them.
- Maintain at least three points of contact (e.g. a hand and both feet) with the ladder when climbing and working. When both hands are being used, the body should become a point of contact.
- Avoid work that imposes a side loading, e.g. side-on drilling through solid materials like bricks or concrete.

Don't:

- Overreach.
- Stand and work on the top three steps unless there is a suitable handhold.

What's next?

Ensure the procedures and policies for working at height are up-to-date in your school by utilising our templates – click <u>here</u> to access our Working at Heights Policy, and access our risk assessment <u>here</u>.

Bibliography

HSE (2014) 'Common work at height myths', 'You need to be formally 'qualified' before using a ladder at work' <<u>https://www.hse.gov.uk/work-at-height/myths.htm</u>> [Accessed: 6 April 2020]

HSE (2014) 'Safe use of ladders and stepladders'