ASSIST INFORMATION SHEET:

Use of stepladders in school science areas

'If ladders are used they must be selected to suit the task to be undertaken. In doing this, you should consider the duration of the task, the physical surroundings of where the task is to be undertaken and the prevailing weather conditions.

Ladders should have ***a load rating of at least 120 kg*** *and be* ***manufactured for industrial use'****.*[1]

Storage of items in school science areas is a common challenge. In most situations, it is impossible to avoid extending vertical storage or displaying items above head height. It has become a common practice to use stepladders in accessing/replenishing stored items or handling display items.

It is advisable to store lightweight items and rarely used items on higher shelves to minimise the risk of handling above head height storage using stepladders.

Science ASSIST recommends considering the information below as a general guideline when selecting, using and inspecting (maintaining) stepladders in science areas. It is the responsibility of employers to keep people safe when using ladders in the workplace.

Selecting a stepladder

- Choose a stepladder manufactured for industrial use with a minimum load rating of 120kg. Safe Work Australia does not recommend the use of domestic products in any Australian work place.
- Make sure a reputable manufacturer manufactures the stepladder/s to comply with *AS/NZS 1892.5:2000 Portable ladders Part 5: Selection, safe use and care.*
- Metal stepladders are not suitable when working with electrical power supplies or faced with any electrical hazard. A wide range of fibreglass stepladders is available when working with electricity.
- The length of the ladder should be appropriate for the maximum reach required (site specific decision).
- Extra-wide stepladders or platform stepladders are available for more stability and safety.
- Platform stepladders are/can be fitted with self-locking sprung castors (spring loaded castors) for ease of moving/handling a stepladder.

Before every use, **a pre-use inspection** should be carried out. **This should include a thorough inspection of the:**

- state or condition of the feet. If they are missing, worn or damaged the ladder could slip.
- stepladder platform. If the platform is split or buckled the ladder could become unstable or collapse.
- steps or treads on stepladder. If the steps are contaminated they could be slippery; if the fixings are loose on steps, they could collapse.
- locking device. It should be firm and secure when engaged.

The benefit of conducting pre-use checks is that they provide the opportunity to identify any immediate/serious defects before they cause an accident. It is advisable to regularly assess your entire site for potential fall hazards. Ensure all safety gear and equipment is in peak condition prior to use.

When using a stepladder to carry out a task:

- check that all four feet are in contact with the ground and the steps are level
- ensure it is on a surface that is firm, level, clear, dry and not slippery. Do not place on boxes, unstable bases or on scaffolds to gain additional height
- ensure it is fully opened and any locking devices are engaged
- try to position the stepladder to face the work activity and not side on
- carry only light materials and tools. Do not overload. Stepladders are meant for one person
- always face the ladder when ascending or descending
- don't stand and work on the top few steps unless there is a suitable handhold
- do not overreach. Move stepladder when needed
- avoid pushing or pulling stepladders from the side. Repeated sideways movement can make ladders unstable
- maintain three points of contact at the working position. This means two feet and one hand, or when both hands need to be free for a brief period ensure that two feet and the body are supported by the stepladder

Stepladders are to be used as a means of access to, or egress from, a work area and as a working platform for light work of short duration that can be carried out safely on a ladder only.

Inspection and maintenance

A competent person should regularly inspect stepladders in accordance with the manufacturer's recommendations. Ladders with any of the following faults must be replaced or repaired.

- Worn or damaged feet, including non-slip material.
- Stiles twisted, bent, kinked, crushed or with cracked welds.
- Rungs, steps, treads or top plates that are missing, worn, damaged or loose.
- Missing, loose, bent or worn fasteners, i.e. rivets, bolts and pins.

Single sided stepladder

Platform stepladder

Platform stepladder with sprung castors

References

[1] Safe Work Australia *Managing the risk of falls at work places – Code of Practice*, p 35, March 2015, Safe Work Australia website, http://www.safeworkaustralia.gov.au/sites/SWA/about/Publications/Documents/632/managing-risk-falls.pdf

Health and Safety Executive UK, *Safe use of ladders and stepladders* – A brief guide, Health and Safety Executive website, http://www.hse.gov.uk/pubns/indg455.pdf (January 2014)

'Ladder safety / Stepladder safety', Bailey Ladders website, http://baileyladders.com.au/safety/stepladder-safety (Accessed January 2016)

Standards Australia, 2000, *AS/NZS 1892.5:2000 Portable ladders Part 5: Selection, safe use and care*. Sydney, Australia.

'Stepladders', OHS Reps website, http://www.ohsrep.org.au/faqs/ohs-reps-@-work-other-/stepladders (June 2015)

'Using stepladders safely', Health and Safety Executive, UK website http://www.hse.gov.uk/work-at-height/stepladders.htm (Accessed January 2016)