



Expert answer 17th March 2023

Introduction

This information sheet is an updated review of the answers to the following questions, and replaces the previously published Q&As:

- Lab Safety—sitting during practicals: Do you know if it is a legal requirement for there to be no sitting at benches during school science experiments?
- Lab safety/guidelines: Is there any legislation that states that you need to have a first aid kit available in each Science Lab, that chemical storerooms need to be ventilated and that food (even if it is for experiments) should not be stored in chemical store rooms?
- What are the legislation differences based on state?

Sitting in during Practical

There are no regulations that state whether laboratory stools are permitted, or not permitted, in laboratory workstations. In all situations, a site-specific risk assessment must be conducted. In an ideal situation, the laboratory will have two distinct areas, one for theory and writing up, and another for practical work. In this situation, the need for stools at the practical benches is minimal. Unfortunately, this is not the case in most school situations.

There are three considerations in regards to using stools in laboratories.

1. the nature of the school science activity;
2. the design of the science teaching laboratory; and
3. access and egress.

The nature of the activity.

Activities involving working with chemicals and/or heating are better suited to working in a standing position. In the unfortunate event of a chemical spill, people nearby can quickly move away from the spill if they are in a standing, rather than a seated position. In addition, the amount of body surface area likely to be in contact with a potential spill will be less if standing, as opposed to the larger surface area of someone's lap when in a seated position.

Activities such as using a microscope and/or detailed work and writing up activities are generally better suited to working in a seated position.

Access and Egress

An important issue associated with the use of laboratory stools in a practical area is the obstruction of egress in an emergency situation. A natural reaction of a class of students is that in the event of an



emergency evacuation, they are likely to rush and knock over stools, which may interfere with their egress route creating an additional hazard which is best avoided. Therefore, stools should be placed under the benches at the start of activities to enable free movement within the room.

AS/NZS 2982-2010 states in 2.11

- “An unobstructed egress path shall be provided from each laboratory.
- Compliance with the egress limits of the building code shall be regarded as the minimum requirement.”¹

Additional Information

CLEAPSS² addresses the issue of standing versus sitting in its guidance material *G30 Successful science practicals*. The recommendations are:

- for students to stand when using chemicals or heating substances to enable quick movement away from a spill or accident.
- sitting is better for titration, microscope work, electrical circuit making or microscale chemistry where only drop amounts of chemicals are being used.
- Stools should be placed under the bench when not in use.

First aid kits in School science laboratories

Legislation states that workplaces have a duty to provide first aid, however it is not prescriptive as there are many different factors to consider, depending upon the type of workplace. There is no legislation that states you need to have a first aid kit available in each science laboratory.

Safe Work Australia has developed a [Model Code of Practice for First aid in the workplace](#).³

Section 3.1 considers the location of first aid kits and states:

“In the event of a serious injury or illness, quick access to the kit is vital. First aid kits should be kept in a prominent, accessible location where they can be retrieved quickly. All workers must have access to first aid equipment including in security-controlled workplaces.

First aid kits should be located close to areas where there is a higher risk of injury or illness. For example, a school with a science laboratory or carpentry workshop should have first aid kits located in these areas. If the workplace occupies several floors in a multistorey building, at least one kit should be located on every second floor. Emergency floor plans displayed in the workplace should include the location of first aid kits.

A portable first aid kit should be provided in the vehicles of mobile workers if that is their workplace, for example couriers, taxi drivers, sales representatives, bus drivers and inspectors. These kits should be safely located so as not to become a projectile in a collision..¹

A risk management approach in conjunction with school policy is required to tailor and meet the legal requirements to provide the first aid needs of your specific environment. This includes the number and type of first aid kits required as well as their contents. When assessing your workplace, consideration should be given to the nature of the work, the type of hazards that exist, the location and size of the workplace and the number and type of persons involved. It is recommended that you consult your school sector to determine the policies and procedures for your jurisdiction.”



Legislation variations between states and territories

Whilst there may be different legislation adopted in each state and territory the intent is similar, to provide a safe workplace and most are based upon a risk management approach rather than a prescriptive set of regulations. Educational facilities have an additional duty of care to provide a safe learning environment for their students. It is important that you consult your state regulator for relevant legislation. See below for some suggested links:

- Where the model WHS legislation has been adopted, generally the model Code of Practice for First aid in the workplace has also been adopted. To see the current status of each jurisdiction's progress in implementing these laws see '[Implementing Work Health and Safety laws](#)',⁴ on the Safe Work Australia website. The link to the current code of practice for each state is listed below:
- NSW: [Code of practice – First aid in the workplace](#).⁵ The pdf document can be found at the bottom of the page.
- NT: [First aid in the workplace | NT WorkSafe](#).⁶
- QLD : [Managing first aid in the workplace procedure \(qed.qld.gov.au\)](#).⁷
- SA: [Model code of practice: First aid in the workplace](#).⁸
- TAS: [First aid in the workplace: Code of practice](#).⁹
- VIC: As of March 2023, Victoria has not implemented the model WHS. In Victoria, follow the safety regulations contained within the Worksafe document - [Compliance code: First aid in the workplace](#).¹⁰
- WA: passed a version of the model laws in November 2020, which became operational in March 2022. [Code of practice – First aid in the workplace](#).¹¹

Recommendations

- Science ASSIST recommends that stools are placed under the practical bench, unless required for use, to enable free access to the bench and not impede the student from exiting the classroom in the event of an emergency evacuation. Schools need to evaluate their individual circumstances to determine the best seating/standing option.
- Science ASSIST recommends that there be at least one first aid kit in each science area. Where a number of science laboratories are located adjacent to a preparation room, it may be deemed appropriate to have a first aid kit in the central preparation area to service the science area.
- Educational facilities have an additional duty of care to provide a safe learning environment for their students. It is important that you consult your state regulator for relevant legislation.

References

¹ Standards Australia. 2010. *AS/NZS2982-2010 Laboratory Design and Construction*. Sydney Australia. Reproduced by ASTA with the permission of Standards Australia Limited under licence CLF1222asta Copyright in *AS/NZS2982-2010* [ASSIST] vests in Standards Australia and Standards New Zealand. Users must not copy or reuse this work without the permission of Standards Australia or the copyright owner.

² CLEAPSS UK website, (2020, October), '*G30 Successful science practicals*', retrieved from <https://science.cleapss.org.uk/resource-info/g030-successful-science-practicals.aspx> (Member log in required)

³ Safe Work Australia website, (2019, July 1), '*Model code of practice: First aid in the workplace*', retrieved from <https://www.safeworkaustralia.gov.au/doc/model-code-practice-first-aid-workplace>



- ⁴ Safe Work Australia website, (accessed 2023), '*History of the model WHS laws*', retrieved from <https://www.safeworkaustralia.gov.au/law-and-regulation/history-model-whs-laws>
- ⁵ Safe Work NSW website, (2020, January), '*Code of practice – First aid in the workplace*', retrieved from <https://www.safework.nsw.gov.au/safety-starts-here/safety-overview/first-aid-in-the-workplace>
- ⁶ NTWorksafe website, (2022, October 13), '*Code of practice - First aid in the workplace*', retrieved from <https://worksafe.nt.gov.au/forms-and-resources/codes-of-practice/first-aid-in-the-workplace>
- ⁷ Queensland government website, (2018, June 1), '*Managing first aid in the workplace procedure*', retrieved from <https://ppr.qed.qld.gov.au/pp/managing-first-aid-in-the-workplace-procedure>
- ⁸ Safework SA website, (2020, June), '*Model code of practice: First aid in the workplace*', retrieved from <https://www.safework.sa.gov.au/workers/health-and-wellbeing/first-aid>
- ⁹ Worksafe Tasmania website, (2019, July), '*First aid in the workplace: Code of practice*', retrieved from <https://worksafe.tas.gov.au/topics/laws-and-compliance/codes-of-practice/cop-folder/first-aid-in-the-workplace>
- ¹⁰ Worksafe Victoria website, (2021, November), '*Compliance code. First aid in the workplace*', retrieved from <https://www.worksafe.vic.gov.au/resources/compliance-code-first-aid-workplace>
- ¹¹ Government of Western Australia, Department of mines, industry regulation and safety, (2022, July 15), '*Code of practice – First aid in the workplace*', retrieved from <https://www.commerce.wa.gov.au/publications/code-practice-first-aid-workplace>

