



## POLICY POSITION PAPER: WORKPLACE HEALTH AND SAFETY

### Background

Workplace Health and Safety is a cornerstone of all good work environments and safety training, advice and resources are integral when building safe and welcoming teaching and learning environments. Safety training must underpin science educators' professional training and encompass the different science backgrounds of educators in all education settings across all learning environments (K-Year 12).

In recognising safe practice and the need for safe learning environments, it is also important to recognise that safety is not limited to hands-on practical experiments and risks in the physical environment. It extends to many, less 'tangible' aspects of the broader educational environment in which learners and science educators operate.

In the production of this policy position paper ASTA undertook extensive stakeholder consultation through a survey open to all teachers, and one-on-one consultations. Our consultations consisted of conversations with teachers, government, business, and academia. For example, we had conversations with Australia's Chief Scientist, Australia's Women in STEM Ambassador, BHP, Clarivate Analytics, The Australian Academy of Science who have collectively helped shape this policy position.

### Issues Teachers Face

Science educators participating in the 2021 ASTA National Survey have identified that:

- up to 40% of teachers may be teaching out-of-field.
- 15% are currently not confident teaching science concepts.
- more content hesitancy exists around the physical sciences (Physics and Chemistry).
- there is a lack of sufficient time allocated to science teaching and for lesson preparation.
- there is a lack of sufficient time for professional development to be undertaken during the school week or school day.
- there is a lack of dedicated science specialists or laboratory technicians in their school for support.
- large class sizes create safety issues for practical work and differentiation for student abilities.
- the lack of science laboratory technicians in primary and in some secondary schools contributes to increased safety risks to students during practical sessions.

### ASTA's Commitment

ASTA will work with relevant stakeholders to ensure that science educators:

- have access to ongoing advice, training and professional development opportunities in workplace health and safety.
- have access to appropriate advice, training and resources that help build a lifelong safety culture in students.
- have access to advice, training, and resources to create a safe and welcoming teaching and learning environment for Aboriginal and Torres Strait Islander students, and groups that have limited participation in science due to issues of underrepresentation, visibility or bias.
- have access to advice, training, and resources about ethical considerations in the use of animals in science learning, planning and review of the safety of all practical activities to minimise risk and potential harm.
- have the confidence that school science safety programs are continuously monitored and modified to meet the changing needs of teachers and students, in line with relevant legislative requirements.

## ASTA's Expectations

ASTA seeks and expects:

- funded training in workplace health and safety, and the time to undertake this training, for teachers and laboratory technicians.
- funded ongoing specialist advice, training and resources for assessing, planning for and managing risks in the science learning environment.
- the development of standardised workplace health and safety guidelines for all learning environments including early childhood, primary, secondary, out-of-field and beginning science educators as the basis for the safe delivery of hands-on activities, demonstrations, guided experiments, open investigations, and field work (within the school campus or off-site).
- schools have funded access to laboratory technicians in primary and secondary contexts to manage laboratory safety and the use of these spaces specifically for science classes and activities.
- the provision of resources, time, and technical support for teachers to plan engaging, relevant, and safe science inquiry learning experiences.
- funded training and resources to enable teachers to create culturally safe and welcoming learning environments for Aboriginal and Torres Strait Islander students, and groups that have limited participation in science due to issues of underrepresentation, visibility or bias.
- funded training in the ethical treatment of animals when conducting science inquiry learning experiences.
- funding for the acquisition of appropriate, safe equipment and materials to conduct science learning by inquiry.
- a reduction of practical class sizes to support workplace health and safety for students and teachers in their learning environment.
- a national audit of chemical stores in schools to ensure safe and sustainable waste disposal.
- a national audit of science laboratories and learning areas to identify school science learning facilities across the nation which require updating to minimise risk and potential harm to students and staff.
- the availability of relevant data on school science safety to inform the development of advice, information, training and resources that encourage and enable the safe conduct of scientific investigation.

## ASTA's Agenda

- Dedicated funding to improve school science safety, advice and resources.
- Training and development.
- Specialist advice on school science safety and cultural safety.
- Availability of equipment and materials.
- Access to data.
- Achieving the right balance in the student-teacher ratio.
- Stronger partnerships between teachers and the community, education, and scientific ecosystem.

## Recommendations

- The Federal Government and other relevant stakeholders work with ASTA to develop comprehensive solutions that meet the expectation of science teachers and laboratory technicians.

