Science Technician Employment

Posted by Anonymous on Wed, 2017-08-09 13:14

Science Technician Employment: Are there accessible standards/documentation/job descriptions that state how many hours school science laboratory technicians should be allocated, aligning with duties, number of classes, class sizes etc.?

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Employment

Submitted by sat on 16 August 2017

Answer updated 28 February 2023

In brief, there is no documentation that we are aware of stating staffing allocation for technical support in science. **Schools should allocate sufficient time for technicians to perform all the required tasks safely and effectively to support practical science in schools.**

The number of hours a technician is employed in a school science area is a school-based decision. Some jurisdictions may have a formula that they use to determine the staffing allocation.

We highly recommend that you read the 2009 report by Professor Mark Hackling, titled "The Status of School Science Technicians in Australian Schools" (in particular read the executive summary).

We provide the following suggestions

- **Survey other schools** with similar science programs and similar number of students to determine their time allocation for technical support.
- **Compare your service factor with the ASE service factor** recommended in the 2009 report by Professor Mark Hackling, titled “The Status of School Science Technicians in Australian Schools”
- **Consider the information in the links listed below** to investigate what is considered sufficient time for technicians to perform all the required tasks safely and effectively to support practical science in your school.

Background information regarding the service factor

The Australian Science Teachers Association (ASTA) and Science Education Technicians Australia (SETA) expressed concerns about the status of technical support for science teaching programs in Australian schools. This led to the Australian Government through its Department of Education, Employment and Workplace Relations (DEEWR) to fund a study to investigate the training and support for technicians, their roles and the level of servicing provided by technicians for the teaching and learning of secondary science.

The ensuing report identified many issues in Australia’s school educational systems including safety risks, inadequate service factors, training levels and career opportunities. The report made eight recommendations which address training programs aligned with the needs of the educational sector, minimum standards for training and induction into the role, consistent job specifications, availability and support for ongoing professional development, minimum standards for staffing levels (defined by a technicians’ service factor) and the establishment of an online advisory service (Hackling, 2009). Professor Hackling used the ASE service factor to use as a benchmark for the results of his survey.

ASE (UK Association for Science Education) service factor

The Royal Society and the Association for Science Education (2001) developed a service factor and described the standard of service that would be provided for different levels of service factor. The service factor is calculated as follows:

Service factor = technician hours per week / hours of science teaching per week

Technician hours per week are the sum of hours of employment in one week of all technicians working at that school during term time. This is not based upon the number of students at the school.

The hours of science teaching per week is the sum of hours of science teaching per week for all secondary classes at that school. You could determine your current service factor using the formula stated above.

The 2009 report recommended that the minimum service factor in Australian schools be set to at least 0.6. This does not take into consideration additional hours required for schools with circumstances that reduce efficiency such as diverse locations of laboratories, preparation areas and storerooms, absence of a lift where there are multiple levels, buildings undergoing construction and other disruptions to the work areas.

Science Technician job descriptions

Science Education Technicians Australia (SETA) have developed Professional Standards for Australian School Science Laboratory Technicians that set the essential knowledge skills and attributes and time allocation required for effective technical support.

In each state or territory, the government education departments have their own job descriptions for different classification levels for laboratory positions. Independent schools usually follow a 'technical support award' that usually specifies different levels of responsibilities or duties; however, this does not usually detail the actual role description. Many times, Independent schools may even design their own job description.

It may be more helpful for you to ask members of your state science education technician association for their input here. For contact details of the various state technician association contact details see: http://seta.edu.au/state-associations/

References

Hackling, M. (2009, May). *The Status of School Science Laboratory Technicians in Australian Secondary Schools.* Retrieved from Science Education Technicians Australia: https://seta.edu.au/reports/

Holman, John. (2017). *Good Practical Science.* Retrieved from The Gatsby Charitable Foundation: https://www.gatsby.org.uk/education/programmes/support-for-practical-sci... (in particular download the 8-page summary).

Laboratory Technicians Association Victoria, Inc. (n.d.). *Policies.* Retrieved from Laboratory Technicians' Association of Victoria: https://ltav.org.au/policies/

Science Education Technicians Australia. (2021, July). *Professional Standards for Australian School Science Laboratory Technicians.* Retrieved from Science Education Technicians Australia: https://seta.edu.au/

Additional Links from UK and NZ

Chandler-Grevatt, Andy. (2017, November 6). *Losing our technicians: the crisis facing schools.* Retrieved from Royal Society of Chemistry, education in chemistry: https://edu.rsc.org/feature/losing-our-technicians-the-crisis-facing-sch...

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SCORE. (2013). *Benchmark tools for practical work in science.* Retrieved from Institute of Physics: https://www.iop.org/education/support-school-college-physics-teachers/be...

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