

24 November 2022

Consultation on Changes to NSW Year 7-10 Sciences Syllabus

The National Executive of the Australian Institute of Physics wishes to encourage AIP members and the public to take note of proposed changes to the NSW School Curriculum for the Sciences, and to provide feedback to the NSW Education Standards Authority through their own survey by 5 December.

The draft syllabus for the year 7-10 high school syllabus for Science and the consultation form can be found on the web pages of the NSW Education Standards Authority at

<https://educationstandards.nsw.edu.au/wps/portal/nesa/about/news/consultations>

The AIP Executive is concerned by the proposed removal, from the year 7-10 science curriculum, of some fundamental core concepts from the compulsory curriculum items, including some in relation to the solar system and astronomy.

For example, "*predictable phenomena on the Earth, including day and night, seasons and eclipses are caused by the relative positions of the sun, the Earth and the moon*" has been removed. In its place it is proposed to include as an item in the draft syllabus "*the observations of different people and/or cultures about the phases of the moon, seasons and tides, and how their conclusions guide them in understanding and interacting with the world*".

The nature of physics, and of science more generally, lies in the pursuit of matters of fact, established through investigations and discourse that follow scientific principles, such as hypothesis testing. Science aims to achieve these goals in an objective manner that is as free from bias as possible in relation to opinion, belief or culture.

We consider that the heliocentric model, its consequences for the predictable phenomena on earth (incl seasons, eclipses and day-night variations) and other phenomena in astronomy previously included in the syllabus are fundamental physical insights of such everyday relevance that they require explicit inclusion in the curriculum.

These concepts have been established as matters of fact, through scientific endeavour over the last few hundred years. In our view they should be taught as such in our nation's high schools' science classes.

Aside from the above, the AIP Executive also wishes to encourage the physical community across Australia to examine the draft syllabus for rigorous nomenclature consistent with scientific terminology and for the removal of previously included subject matters. Some proposed changes, such as the classification of heat and electricity as forms of kinetic energy (in the classification of "*types of energy as either kinetic energy such as movement, heat and electricity, or potential energy such as chemical, elastic and gravitational*"), may require clarification or correction.

Members who wish to provide feedback to the Education department are welcome to refer to this statement. The AIP Executive will aim to also provide direct feedback to the department.

The consultation survey by the NSW Education Standards Authority closes on 5 December 2022.

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