



# AUSTRALIAN INSTITUTE OF PHYSICS

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The Committee Secretary  
House of Representatives  
Standing Committee on Science and Innovation  
R1 Suite 116  
Parliament House  
CANBERRA ACT 2600

13 July 2004

Dear Sir/ Madam,

**Re: Review of the Department of Education, Science and Training  
Annual Report 2002-03**

The Australian Institute of Physics (AIP) has a keen interest in the current review and specifically in the investigation of:

- a) the factors inhibiting student participation in the 'enabling sciences', including physics, mathematics and chemistry, at the secondary and tertiary levels; and
- b) how greater participation in these disciplines might be encouraged.

Indeed, we have given considerable thought to these issues in recent years and have highlighted many of our conclusions in our Science Policy. The section of this document relevant to the current review is attached for consideration.

In broad terms we conclude that the most significant factors inhibiting participation in the enabling sciences include:

- a) poor perception of the subjects i.e. hard, boring, irrelevant; and
- b) bad experience at secondary school
  - I. subject taught poorly by disinterested or unqualified teachers
  - II. poor equipment and facilities for practical work

The solutions to these problems are complex and necessarily rely on a long term commitment to change. Details are again provided in the attached Science Policy but broadly, they include:

- a) ongoing promotion of enabling sciences as exciting and important career options

- b) development of a National-Reference-Curriculum to guide secondary Physics teaching
- c) development of strategies to ensure that Physics is taught by qualified teachers. i.e. physics- or science-qualified teachers.

We trust that this input is of some assistance to the review committee and should be happy to provide additional information if required.

Yours sincerely,



Robert G. Elliman