Academy of Science develops new primary school science curriculum

Nancy Lane looks at its impact on school and public libraries

THE AUSTRALIAN ACADEMY of Science has recently announced a $3.5 million project to develop an integrated science, technology and environment program for primary schools across Australia. They aim to involve at least 425 000 children a year in this program within ten years, although many more than this may participate. The Commonwealth Departments of Industry, Technology and Commerce, and of Arts, Sport, the Environment and Territories (DITAC and DASET), and the mining company CRA are funding the development.

The Academy's program will provide a structured progression of concepts and skills covering the physical and biological sciences, technology and the environment. The content will be relevant to children's experiences at home, school and in the neighbourhood, and will cater for the interests and learning styles of girls as well as boys. It will incorporate the requirements of the National Statements and Profiles being developed by the Australian Education Council.

A national commitment to teaching science, technology and the environment in primary schools will have implications for school and public libraries. Firstly, teachers will need more curriculum support material. Although the Academy's program will provide the basics, enthusiastic teachers will be seeking additional resources to supplement their lessons and develop extension activities.

Secondly, students will be doing more of their own research on topics related to the curriculum. Although many school libraries have developed quite strong collections dealing with plants, animals and the environment, they may need to consider purchasing more materials in the physical sciences, earth sciences and technology.

Thirdly, libraries may need to support teachers' needs for background or subject knowledge. The Academy's program uses a 'constructivist' model, which enables teachers to interact with children, find out what they already think (rightly or wrongly) about scientific phenomena, and help them to observe, design and experiment in order to confirm their perceptions or develop more appropriate explanations. Teachers may need reference books or senior secondary textbooks to review basic scientific principles, such as gravity or air pressure, to help students change their misconceptions to scientific understanding.

Primary schools in Melbourne, Sydney, Adelaide, Brisbane and Perth have received invitations to participate in the trialing, and about 30 will be selected from the 500 that applied. Two-day in-service workshops will be conducted on a 'whole school' basis during first term in 1993 and ideally, the teacher librarian will be included. The program will be revised in 1994, and available for schools to implement in 1995. For more information contact Dr Nancy Lane, Development Officer, Australian Academy of Science, GPO Box 783, Canberra ACT 2601 Phone (06) 247 5330, Fax (06) 257 4620. ■