

Britannica Pathways: Science Review

Review by John Wilkinson, Science Educator, former science teacher and lecturer, on behalf of Science Teachers' Association of Victoria (STAV), for *Labtalk* journal Edition 1, February 2014

Britannica Pathways Science is an online resource for teachers and students targeting commonly held misconceptions in science. The material originated from the USA but it has been adapted for use in Australia by local science educators so that it fits in with the new Australian National Curriculum in Science for year 6-10 students.

There are about 100 interactive lessons addressing commonly held misconceptions in ten key areas of science. The key areas are: Living systems, Genetics and Evolution, The Environment, Materials, Force and Motion, Energy, Light and sound, Earth Systems, The Universe and The nature of Science. The lessons encourage the use of computers, iPads, Macs and tablets in the classroom by requiring students to interact online to get immediate feedback on their thinking. Corrections to misconceptions are built into the program and seem to work well.

The interactive, online tool uses a 'probe' framework to target the misconceptions within the context of the Australian Curriculum. In this way the teacher and student modules allow for flexibility in the learning approach, which is based on three phases – Predict, Investigate and Conclude. When 'predicting' students are confronted with engaging questions and asked to formulate explanations to the questions. In the 'investigative' phase students make use of articles and videos to assist their learning. In the 'concluding' phase students evaluate the evidence they have collected to assist their understanding.

The teacher module has full lesson guidance and lesson plans and supports teachers with varying levels of experience.

The consistency of the format makes this resource readily accessible to students and teachers. Each topic provides links between concepts, activities to reinforce new ideas, and checking for understanding. The visual aspects guide the learner in the acquisition of new terms and processes.

I would encourage teachers to explore the resource and try some of the modules for themselves, then trial the units with their students. The online resource went live in early December 2013 and is now available for use. It will be a very useful online ICT resource for teachers of science.

Go to the following Australian marketing website URL <http://edu.eb.com> for information.

Teachers will be issued with a Username and Password. The school price is an annual subscription per student based on the student population in Years 6/7 to 10. Pricing is available on application. Free school trials are available on request by contacting Britannica Digital Learning bol@eb.com.au or visiting the Britannica website <http://edu.eb.com>.

Note: The reviewer has no affiliation with the publisher.

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