

# Your curriculum has just upgraded

■ Tony Sherborne

Right now, many people will be weighing up whether to upgrade to the latest version of 'Windows'. Whatever is decided, the improvement in the software compared to the 1980s version is enormous. With any complex innovation, developers cannot fully anticipate how it will work in practice. Hence, they collect feedback and re-design. It is a shame that this model has not caught on in curriculum development and publishing. Here, it is more a case of 'done and dusted'.

Not so with *Wikid*, the 11-14 course from ASE and the Centre for Science Education. We are committed to evolving it over time, with help from some of the 750 schools who are now

using it. We have an advantage in that it is developed one year at a time. The lessons learned about Year 7 (age 11-12), from surveys and focus groups, are now being used to improve Year 8 (age 12-13).

Although the consensus has been that it has generally worked very well, there were areas we needed to work on, such as assessment, and accessibility for students at lower levels. In this article, I will describe some of the changes we have made, to make the course more user-friendly and effective.

## Better differentiation in assessment

Teachers wanted all our assessments to accommodate students working from level 3 right up to level 7. They now all do this. For the quizzes, we have created individual tests at level 3-5 (lower) and level 5-7 (higher).

The first quiz (covering lower levels) is designed to be used formatively, midway through a teaching sequence. Teachers can use the information, before deciding to moving on to the more difficult concepts or the applications.

For Year 8, we have completely integrated our objectives and assessment with the Assessing Pupil Progress (APP) framework.

The marking guides reference levels in the APP grid, and there are more problems and a quiz to collect the required evidence for different levels. Needless to say, the learning activities have also been re-focused on APP skills.

## An Afl accessory

The purpose of *Wikid* is to increase motivation and understanding in science, on a large scale. But will it work? That is why there is now a research project, called *APPREND*, running alongside the materials. It aims to maximise as well as measure *Wikid's* impact. One of its first targets is assessment for learning. The APP grid may be great for summative assessment, but teachers need an easier way to give



An Afl accessory

informative feedback to students, in language they can understand. So *APPREND* has taken the APP statements and expanded them into a set of clear performance outcomes – for every goal in the Programme of Study. They are presented in the form of a friendly student booklet, called *Missions*. Its numbered outcomes makes offering feedback easy for the teacher, and giving the booklets to students means that they can do effective target-setting and monitoring. For more details about *Missions* booklets, visit: [www.apprend.org.uk](http://www.apprend.org.uk)


## Easier to use PowerPoints

PowerPoint does provide the most convenient backbone for delivering a *Wikid* lesson, and is generally an improvement on the traditional double-page spread. However, the amount of text on the slides has proved challenging for some students. So, for Year 8, we developed a more minimalist approach, boiling down the words to the essentials, and using strong visuals to get more of the message across.



Easier to use PowerPoints

**Swimming speed investigation**



Olympic gold medalist Michael Phelps has extra long arms and huge feet. He is also very tall. Which of these features has most effect on swimming speed?

**Plan an investigation to answer the question**

**Better differentiation in assessment**

**Marking guide**

**APP L3**  
Identify one or more control variables from those provided.

**APP L4**  
Decide when it is appropriate to carry out fair tests.

**APP L5**  
Recognise significant variables, and select the most suitable to investigate.

**APP L6**  
Identifying significant variables and recognise which are independent and which are dependent.

**APP L7**  
Identify key variables in complex contexts, explain why some cannot readily be controlled and plan approaches to investigations to take account of this.

# ASE Publications Committee Electronic Survey 2009

Thank you to all 800 members who responded to the electronic survey asking about ASE publications. This was a really good response rate, about 10% of the people contacted. If you did not receive the survey, this is likely to be because we do not have your current e-mail (or your computer treats ASE as spam!). So, please check and let us know your current e-mail address if you want to be kept informed or consulted.

From your responses, the Committee gained good ideas about improving the Booksales catalogue layout, as well as simplifying the purchasing process; for instance, making explicit the rates of p&p, which was of particular concern to our overseas members. Part of these improvements will occur in conjunction with the development of the forthcoming new ASE Website.

Interestingly, a large proportion of requests were for books or articles that ASE already publish, or have recently featured within our journals. This clearly indicated that we need to raise the profile of our products so that members and non-

members are more aware of what is already available, both in paper format and web-based. To start off, you might like to look at the Website and see the latest *SATIS Revisited* titles.

We are considering the many useful ideas for future articles, or even 'monographs', on such topics as psychology, biodiversity, clarification of formative assessment, assessment of pupil progress and summative assessment, and ideas about practical experiments, to name a few. We have new publications in the pipeline on science through story books, Early Years support, primary investigations, re-working of *SSR* notes and updated Health and Safety guides, all topics requested in your responses. The 2010 Annual Conference in January at Nottingham University will present an opportunity to learn more about these, as well as to join the workshop on *Writing for the ASE* (see page 32).

We received a number of requests for publications of 'test materials' to prepare students for examinations. We decided not to pursue this, as

many other publishers are already addressing this competitive market and we feel that we should stay focused on materials that support excellence in teaching and learning science. However, we hope to establish a web-based forum, in which members can share their science activities or 'key questions' that have proved successful when assessing students' learning. These might include effective test questions or practical investigations. If we gather enough good ideas across the full age range and a variety of themes, then the idea of a paper publication would be considered.

The Committee would like to thank you for your suggestions and ideas and invite you to 'keep them coming', either by e-mail or letter directly to 'Publications Committee' at ASE, or through your Regional representatives. Your views and comments are always welcome and given full consideration.

**ASE Publications Committee,  
September 2009.**

## More variety

Stories are an extremely popular element of *Wikid* with students. When it comes to exciting their imagination at the beginning of a unit, it is hard to beat a good video clip. However, the material that is out there does not always quite fit our stories. This year, we teamed up



Clive Oppenheimer on Mount Etna.

with scientists and TV producers to develop integrated resources that tell the stories through interwoven TV clips and activities. They are all based on real scientists at work, such as Clive Oppenheimer here, who is monitoring a lava flow on Mount Etna. There is a TV story for the *Live & Kicking*, *Catastrophe* and *Nviz* units, and they are available from Teachers TV.

## Other improvements

We have listened to feedback on the way the *Wikid* materials were organised and cross-referenced, and made this more intuitive. There is now a growing set of 'teacher-modified versions' of activities and assessments, for instance, catering for SEN students. You can access these online, at our community website: [www.wikiedscience.com](http://www.wikiedscience.com)

The evolution of *Wikid* will continue, with the revision of the existing Year 7 units during the year, and to bring their assessment fully in line with APP. If your curriculum is in need of an upgrade, why

not give *Wikid* a try? You can start with a single unit. See the details and special offers at: [www.upd8.org.uk](http://www.upd8.org.uk)



The integrated TV stories were produced for the *How Science Works II* project, funded by EPSRC.

**Tony Sherborne** leads the development of upd8 *wikid*, and is Creative Director for the Centre for Science Education.