

From CETL to Course Team: CETL-led initiatives in S104 *Exploring Science*



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Background

- S104 *Exploring Science* is the Science Faculty's 60 CATs point Level 1 'flagship' course, including Earth science, physics, chemistry and biology.
- It was presented for the first time in February 2008 and has two presentations per year, each with 1500-2000 students.
- The content of S104 is based on its predecessor, S103, but its tuition and assessment strategies are very different.
- S104 is assessed by 7 TMAs marked against learning outcomes and with optional eTMA submission, 9 summative but low stakes iCMAs (interactive computer marked assignments) and an ECA (end of course assignment)

Tuition Strategy

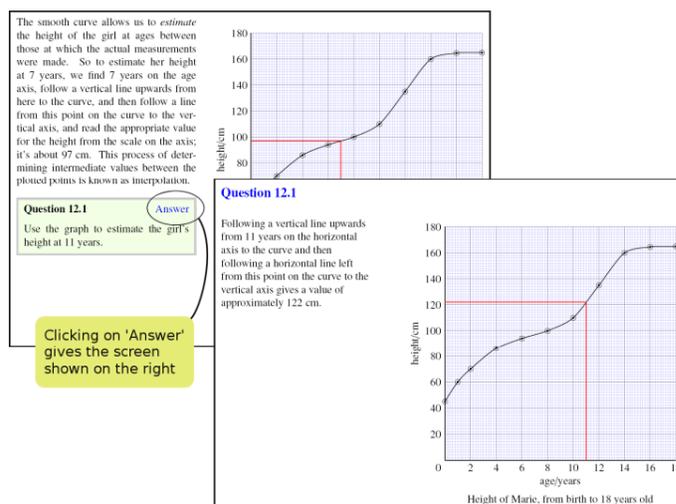
- S104 has reduced the amount of face to face contact with students and increased the time available for tutors to work online with their students.
- Tutor group forums (TGFs) are the main vehicle for both support and tuition.
- Tutors lead course team produced activities which deliver specified learning outcomes e.g. use information technology to learn and communicate, contribute to electronic group discussion.
- These activities are embedded in the course materials and the assessment strategy so participation is encouraged and rewarded.
- Tutors are provided with additional materials for optional TGF activities; tutors can choose which of these activities will benefit their group or they can produce their own material.
- Staff development for new to course associate lecturers is delivered by way of an asynchronous online briefing, which demonstrates best practice for TGFs and places the tutor in the role of online learner.
- ALs can refer back to the online briefing during the year

Are you ready for S104?

- Making sure that students are on the 'right' course is of crucial importance for retention.
- S104 is a 60 point course: we want to make sure that students have sufficient time available for studying it.
- S104 assumes some basic mathematical skills, taught in S154 *Science Starts Here* and elsewhere. Where appropriate, we want students to study S154 before S104.
- We use an online diagnostic quiz to direct students to the appropriate course.
- The quiz is very heavily used and valued by students ; it was revised in summer 2009 following evaluation of usage.

The Maths Skills ebook

- Available on the course websites of most Science Short Courses, S104 *Exploring Science* and several other courses.
- Hyperlinks enable students to link between different parts of the resource.
- The ebook is accompanied by a bank of formative iCMA questions.



Short-answer free-text iCMA questions

S104's summative iCMAs include 15 short-answer free-text questions, with targeted feedback. These questions, and others in use on S154 and SXR103, were developed using responses from S103 students.

The photograph shows an outcrop of granite near Land's End in Cornwall (UK). How is an igneous rock with large crystals (such as this granite) formed?

It is formed when molten rock cools and crystallises. The fact that the crystals are big tells you that the molten rock cooled slowly, under the surface of the Earth.

Your answer is correct.

Igneous rocks are formed from molten rock (magma) which has cooled and solidified. In the case of granite, this cooling will have happened very slowly deep underneath the Earth's surface. The granite will only have been exposed at the Earth's surface after overlying rocks have been removed by erosion.

Next

Interactive screen experiment

- S104 Book 3 Activity 11.1 'Investigating light' is a 2-3 hour home experiment.
- The Course Team want students to do this experiment (so it is assessed). Most students enjoy the experiment and learn from it, but there are difficulties for
 - Students with dexterity or eyesight problems
 - Offender learners
- We produced an Interactive screen experiment (ISE) version of the experiment which is supplied to these students (only)
- The ISE is not a simulation; it is based on photographs of the real experiment in progress.

