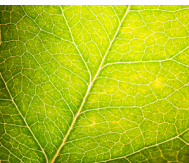
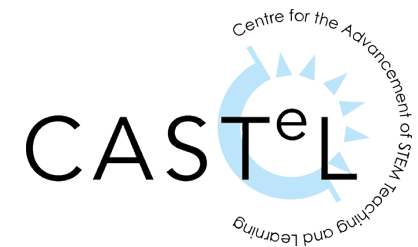




Strategies for Assessment of
Inquiry Learning in Science





*Thinking Assessment in Science and Mathematics Conference,
Dublin 2014*

MEC 2014
SAILS
Strategies for Assessment of
Inquiry Learning in Science



Sharing Practices

Inquiry and Assessment Units

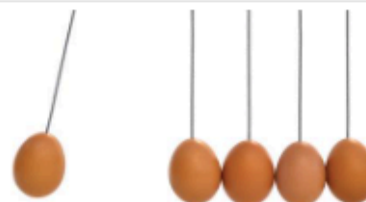
SAILS Inquiry and Assessment Units showcase the benefits of adopting inquiry approaches in classroom practice, exemplify how assessment practices are embedded in inquiry lessons and illustrate the variety of assessment opportunities and /or assessment processes available to science teachers. ▼



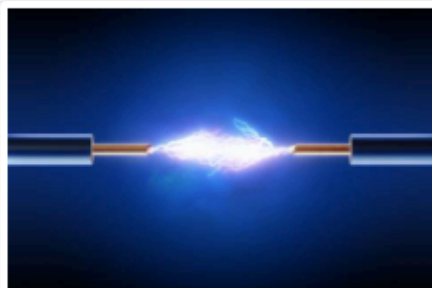
Acids, bases, salts



Black tide – oil in the water



Collision of an egg



Electricity



Food and food labels



Global warming

Subject

All

Biology

Chemistry

Physics

Inquiry skills and competencies

All

Planning investigations

Developing hypotheses

Forming coherent arguments

Working collaboratively

Scientific reasoning

Scientific literacy

Assessment methods

All

Oranges



Proof of the pudding

Plant nutrition



Reaction rates

Polymers



Speed



Ultraviolet radiation



Up there... how is it?



Which is the best fuel?

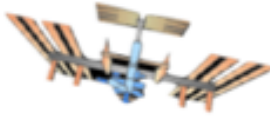
The International Space Station



Up there... how is it?

Student's document

Currently, astronauts from around the world are sent into space. Some astronauts remain in space for months on special spaceships called space stations. There have been some other stations, but currently in service the International Space Station - ISS. It circles our orbit about 16 times per day at an altitude of 400 km.



ISS is an international collaboration involving the joint effort of 16 countries. This structure is the largest and most complex space vehicle ever built and due to its conditions of microgravity, it is a special environment to investigate the effects of a prolonged stay in space. The possibility of controlling the variable gravity creates unimaginable opportunities for research, making ISS a vital framework for developing and test new technologies, and to make decisions about the long range space exploration.

There are astronauts' teams - including many scientists - who alternately in periods of about five months, live, work, eat and sleep on the ISS. Their tasks are, for example, doing the maintenance of the station and conduct investigations. Given the environment of microgravity, astronauts incorporating ISS expeditions have to readjust all their daily routines such as eating, sleeping or going to the bathroom, to a new reality; this certainly

- ✓ Students collaborate
- ✓ Scientists are real people
- ✓ Priming for design task

Watch this video:

http://www.nasa.gov/mission_pages/station/main/suni_iss_tour.html

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3. What have you observed in ISS that matches with your initial idea? Explain.
4. What surprised you most during the visit to the ISS?
5. Share and debate your thoughts with the rest of the class.
6. Write a question you would like to ask to the commander Suni Williams about his experience on board of the ISS.

- ✓ Students communicate

Meet Commander Suni Williams





- ✓ Students plan their own experiment in micro-gravity
- ✓ With the help of their English teacher, write a letter to NASA and submit their plan

UP THERE... HOW IS IT?

FP9

- ✓ The SAILS Teacher Education Programme has reached 2,500 teachers
- ✓ They can integrate teaching, learning, and assessment, tailored to their classroom needs
- ✓ Change takes time and continued effort to embed
- ✓ Investments made in FP6 and FP7 must not be lost