Getting Practical with ‘Nappiology’

Natasha Neale and Mark Crowley, of the Centre for Effective Learning in Science at Nottingham Trent University, have been working with primary teachers from the East Midlands, embedding the Getting Practical principles in a creative, practical activity called ‘Nappiology’, which uses ‘materials’ as a context in key stage 2. It incorporates blind and fair testing, basic science measuring skills, making predictions and analysing results, which can lead to interesting discussions, including the environmental issue of disposable nappies.

The most common investigation focuses on absorbency and involves equipment such as measuring jugs, weighing scales and nappies, so it is a cheap activity to implement. Instructions are presented in written or pictorial form, making it suitable for all pupils as they can focus on developing their practical skills without hitting literacy barriers.

Nappiology can be used to exemplify any of the three reasons for carrying out practical work in science:

• developing knowledge and understanding of science;
• learning how to use equipment;
• developing understanding of scientific enquiry.

Teachers have found that the pupils are engaged and enthused, while also developing their practical skills. Less confident teachers can see how drawing from their own experiences and understanding of everyday life, can lead to some excellent practical activities.

Getting Practical courses currently being run across England are also helping teachers to gain an understanding of how to implement Assessing Pupils’ Progress (APP). By reflecting upon their current practice and improving the effectiveness of practical teaching, teachers can address the APP framework with more confidence.

For more information about the free local professional development courses visit www.gettingpractical.org.uk, where you can also find a resource section of good-quality primary level practical activities.

Free copies of the SCORE book Practical work in primary science are still available from Georgina Westbrook: georginawestbrook@ase.org.uk.

Contact natasha.neale@ntu.ac.uk or visit www.ntu.ac.uk/cels for more information about engaging and hands-on science activities for pupils from infant age through to post-16 run across the East Midlands.

Correction

At the end of the article ‘The science of survival: desert island life explored’ in PS 113 the contact email address of Jane Delany should have read j.e.delany@ncl.ac.uk rather than jane.delany@ncl.ac.uk.

Jargon buster

Here are a few new words that have emerged:

vector; hybrid; turbo; personalised learning

as well as a definition:

Plasma: An ionised gas, where the gas molecules have been ripped apart by heat. This removes one or more of the electrons of the molecule so that the particle becomes positively charged, while the electrons become attracted to other molecules to form negatively charged particles. These charged particles are called ‘ions’. Sometimes ‘plasma’ is described as a fourth state of matter, so a substance will (in general) go through solid, liquid, gas and then plasma as the temperature rises.

Examples of plasmas are not as rare as one might imagine. When an electric current is interrupted by a switch being opened, a plasma is often formed for a moment between the conductors in the switch as the current ‘tries’ to continue to flow, i.e. a spark! Some televisions use a ‘plasma display screen’.

A completely different use of the term is to describe the straw-coloured fluid which is left when red cells, white cells and platelets are removed from blood.

This highlights why we should define the context of the language we are using, to avoid confusion and generating misconceptions.

If you have any words that you, colleagues, students or trainees struggle with, or any clear definitions that have worked for you on any of the words we publish, please send them to the editor: taramawby@btinternet.com. We will publish as many as we can with definitions in future issues of PS and eventually on the new ASE website.

Ricky’s adventure in Antarctica – latest

Ricky, a puppet from the Puppets Project, is on the way to Antarctica! But he still needs your help. He is travelling with Lisa Wood, an Advanced Skills Teacher for the London Borough of Newham, as part of the 2010 Fuchs Foundation expedition. Ricky is packing his bags for the long journey. He is very excited and has been writing in his blog. Here’s a peek:

They don’t have any toilets where we are going! What do we do if we want to poo? Guess what – you dig a hole.

And then, wait for it, when we move to the next camp we have to take the poo with us on a poo sledge! They’re joking ... aren’t they?

It’s summer in Antarctica. Sun’s out all day, every day – wow! Lisa said pack your woolies; it’ll be cold. Shoes how much she knows. Now where’s my t-shirt, shorts and sunglasses? What else do you think I should take guys?

Soon Ricky and Lisa will be in Antarctica and find out what it is really like living in sub-zero temperatures – brrrrr! They are very grateful for all the suggestions and questions received, but Ricky still needs lots of help.

You can get involved in investigating some of the problems they will face; send ideas and questions to them, or follow their adventures via Ricky’s blog.

If you run CREST* Investigator awards, you could follow the lead of Sara Cinamon, primary science consultant in Islington, and set your Young Science Ambassadors the challenge of devising investigations for Ricky to carry out in Antarctica. Here is one example: ‘Which colour tent will keep Ricky warmest?’ Also, look out for the two Primary Upd8 activities featuring Ricky, and the websites: antarcticapuppet; primaryblogger.co.uk; www.puppetsproject.com; www.primaryupd8.org.uk; www.fuchsfoundation.org

For more information about CREST visit www.crest.org.uk.