Editorial

No time to teach life saving skills? Essential first aid within biology lessons

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There is no more logical place to learn how to cope with the traumas that can occur to the human anatomy than in science studies. This is the setting where our young people learn about the human body, so what better place to learn first aid?

In addition to learning how the heart and lungs work, pupils can learn to perform cardio-pulmonary resuscitation. Understanding how that works and how it benefits a casualty not only reinforces their biological knowledge but also increases their ability to save life. People who receive CPR (cardiopulmonary resuscitation) from first-aiders are two to three times as likely to survive a heart attack as those who do not (BRCS, 2006).

Increasingly, the biology curriculum we deliver is coming under scrutiny and critics. We are urged to consider whether we teach for the test or teach meaningful cohesive biology. We are asked whether we have a moral duty to teach holistic biology and not snippets and contrived answers for exams (Tunnicliffe and Ueckert, 2007). David Slingsby wrote a provocative article (Slingsby, 2006) in which he reflected that the philosophy of biology has not changed since Huxley's day but that we need to move forward with a biology relevant to the 21st century. A new biology curriculum should, according to Rowland (2007) in response to Slingsby's words, "grab young people's interest and teach them things which will be useful to society… biological knowledge should help people make ethical life choices". What could be more fitting that first aid 'the ultimate humanitarian act'?

There is an inevitability that at some point everyone finds themselves involved in an event where first aid skills are needed. It is likely that the person affected will not be a stranger in the street but someone known to us. This is why first aid should be a basic life skill.

Many people and organisations have been advocating that schoolchildren learn basic first aid (e.g. Tunnicliffe, 1986). In 2006 the British Red Cross launched their *Life. Live it.* campaign advocating just this. Activities included: the publication of a policy report outlining the case for first aid education in schools; meetings with ministers and officials; and galvanising support from thousands who sent campaign postcards to their local elected representatives. In addition, a MORI poll was commissioned which revealed that 93% of people support first aid being taught in UK schools[1]. Their efforts were rewarded when the new Personal Health & Social Education (PHSE) curriculum was announced in July 2007, which specifically mentions first aid.

Biology teachers and other science specialists who are interested and concerned about first aid knowledge have taught aspects of first aid over the years through clubs and out-of-school activities. Some have already included basic first aid in teaching. The *Life. Live it.* initiative provides resources which enable all teachers to deliver such fundamental training without necessarily having done a first aid course first, although that would be desirable!

However, this project has limited provision with potentially limited impact. Whilst other European countries have had first aid on the school curriculum for many years, including France, Denmark and Norway (many of whom have programmes supported by the national Red Cross Societies) it is an optional, rather than core, part of learning in English and Welsh curricula.

Therefore it is down to teachers to help build a generation of lifesavers. Basic first aid skills do not need to be taught by a qualified first aider. Biology teachers are perfectly positioned to impart this knowledge and what greater thing is there than to teach someone how to save a life?

The British Red Cross have not campaigned to add more prescriptive content to a packed curriculum or to further increase teachers' already vast workload. They have researched with teachers and acted on the findings. They have developed a resource which keeps lesson preparation to an absolute minimum for those wanting an off-the-shelf resource. It is also flexible, allowing teachers to tailor the resources to the needs of particular classes and topics.

The interactive CD-Rom is designed to appeal to young people through a 'funky' design and themes relevant to their lives and experience. The research showed an anxiety amongst teachers about teaching the subject, so a dedicated support area is included. The resource is designed to be self-supporting so someone who has never even put on a plaster can teach first aid.

There is a range of subjects across the curriculum within which first aid could be taught: however, the fit with biology is clear. The British Red Cross have suggested eight first aid essentials to produce young people confident and competent

[1] Ipsos Mori conducted face-to-face interviews with the interviews with the British public in respondents' homes. 1960 adults (15 and over) were interviewed using CAPI (Computer Assisted Personal Interviewing) between 28 July and 3 August 2006. The data were weighted to the current GB population profile.

enough to administer basic first aid and save a life. These are designed to be part of a PSHE course but could be included in, for example, Science Week. The *Life. Live it.* first aid education kit is in fact based around these eight lesson units.

These topics complement the biology in the statutory science national curriculum. They provide a context in which to set aspects of human biology. They also provide an opportunity to provide an holistic view of the interaction of body systems: the integration of respiratory and circulatory systems while teaching CPR; or the skin and circulatory systems when studying burns. Moreover, there is an opportunity for hands-on work and reinforcement of theory (BRCS, 2004). CPR manikins are part of the *Life. Live it.* kits available from the British Red Cross.

As biologists, we are in an ideal situation to teach these core first aid skills within the science curriculum. In helping pupils learn about various systems, the relevant first aid information can be inserted as a 'story' to enhance the theory in texts and other resources used to amplify the core curriculum. We must not overlook the fact that the national curriculum is the basic entitlement for a child's learning.

Surely we should grasp the opportunity to create a generation of lifesavers? We biologists can make a difference to the lives of other people through our teaching in a number of areas. Life saving first aid is a critical one and one opportunity we should not miss.

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References

Bizzo N (2006) Science Education Saves Lives. IOSTE Newsletter. 9(2) 6-7

BRCS (2004) Creating a Balance, FSC/BES

BRCS (2006) Life. Live it. The case for First Aid Education in UK Schools. British Red Cross Society, London

DfES (2007) Citizenship at Key Stage 4 www.standards.dfes.goc.uk/schemes2/ks4citizenship

Handcock J (2007) Creating a generation of lifesavers. Learning for Life. Issue 9, June 2007; p3

Rowlands G (2007) Towards a new biology curriculum. Journal of Biological Education. 41(3) 99-101

Slingsby D (2006) Biology Education: has it gone anywhere since 1875? Biologist 53(6): 283-284

Tunnicliffe S D (1986) Life Saving Science. Health at School Vol. 2 no 3

Tunnicliffe S D and Ueckert C (2007) Teaching biology: the great dilemma. Journal of Biological Education. 41(2): 51-52

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Find out the first aid knowledge of your pupils

Quizzes with answers and the information about the campaign can be found at lifeliveit.org. The DVD can also be ordered online. If you would like to give the quiz to your pupils we would be grateful for the response sheets with the age and gender of the respondents to be sent to: s.tunnicliffe@ioe.ac.uk.

Eight first aid essentials of the *Life. Live it.* programme

1. Dealing with accidents
Pupils should learn that, in an emergency, assessing danger and keeping yourself safe is fundamental. They should also learn how to call for the emergency services, and what information they will be asked for.

2. Unconsciousness and resuscitation
Pupils should learn to check and clear the airway of an unconscious person, and how to put someone in the recovery position to prevent asphyxiation. Pupils should learn how to check someone's breathing. They should learn the basics of cardiopulmonary resuscitation (CPR) as well as be able to deliver chest compressions and rescue breaths.

3. Choking
Pupils should know how to check the severity of choking, and how and when to use back blows and abdominal thrusts (Heimlich manoeuvre).

4. Bleeding and shock
Pupils should understand the importance of compression, elevation of the wound above the heart and bandaging. They should also be able to identify the symptoms of shock and know how best to respond.

5. Burns and scalds
Pupils should learn to immediately cool burns with cold water, and what not to do (such as covering with woolly dressings).

6. Specific injuries
Pupils should know the symptoms of a break or fracture of the bone, and understand how best to respond, including how to avoid further damage. Pupils should know how to treat a sprain or strain, including the importance of rest, and the cooling and elevation of the injury.

7. Specific illnesses
Pupils should explore how to react to particular scenarios, which could include heart attacks, diabetic control, asthma attacks, meningitis or epileptic seizures.

8. Emotional and social
Pupils should explore how to react to stress in the event of an emergency or illness, and how best to offer emotional support. Pupils should explore the social dimension of helping others in need, humanitarianism and what responsibilities citizens have in society. They could also discuss and question personal prejudices, and what these can mean in a first aid context.