Lesson ideas for Exercise, Energy and Movement

Big Picture: Exercise, Energy and Movement explores the biological systems that keep us moving and considers some of the psychological, social and ethical aspects of exercise and sport. Here, we have suggested some ideas for related activities you could do in class.

If you do any of these activities, we'd love to hear from you! Please send any materials or comments to **bigpicture@wellcome.ac.uk**.

Get In the Zone with free experiment kits	In the Zone is Wellcome Trust's major UK initiative inspired by the London 2012 Olympic and Paralympic Games. It provides a fun, free and fascinating way to discover how our bodies work during sport, activity, movement and rest. Free experiment kits will be delivered to every UK school – bringing the science of the human body to life in the classroom. Please see **www.getinthezone.org.uk**.
Muscle contraction	The Big Picture website features an animation demonstrating muscle contraction. Students may also like to create a model of the sliding filament theory: instructions and examples of how to do this are on the Practical Biology website at **www.practicalbiology.org/areas/advanced/bio-molecules/proteins-in-action/modelling-the-sliding-filament-hypothesis,134,EXP.html**.
Design a training programme	The free poster with this issue of *Big Picture* (**www.wellcome.ac.uk/bigpicture/exercise**) is all about aerobic and anaerobic respiration. Sportspeople have different training programmes depending on how much they need to work using aerobic or anaerobic respiration. Students could choose different sports, research how the body uses energy during their sport and design a training programme based on their findings.
Drugs in sport	Some of the issues around drugs in sport are explored on p. 12 of Big Picture. Debating Matters have produced a guide to running a debate on the use of performance-enhancing drugs at **www.debatingmatters.com/topicguides/topicguide/drugs_in_sport/**.
Related careers	The Real Voices section of *Big Picture* (pp. 14–15) features individuals who work in the world of exercise, energy and movement. If you are interested in further exploring related careers, the Future Morph website has some videos, including a sport science student (**www.futuremorph.org/search.cfm?widCall1=customWidgets.contentItem_show_1&cit_id=4820**) and a physiologist (**www.futuremorph.org/search.cfm?widCall1=customWidgets.contentItem_show_1&cit_id=4949**).
Create your own infographic	Pages 2–3 of *Big Picture: Exercise, Energy and Movement* have lots of data displayed in an infographic style. Students could create their own infographic, perhaps focusing on particular topics such as respiration, muscles or nutrition. Remind students that they should consider their sources and gather reliable data to put into their infographics.