



Exercise and your Heart

Activity



EQUIPMENT	Watch, paper, pencil, skipping rope (optional).
PREPARATION	None
BACKGROUND INFORMATION	<p>Our hearts are pumping at a regular rate. This pumping can be felt by placing fingers across the pulse point at the wrist or the neck, and the rate can be counted. An adult's heart rate is around 70 beats per minute, and a child's is a bit higher. (A mouse's is about 500 per minute, and an elephant's 25!). Heart rate increases with exercise so that more of the oxygen carried in the blood can reach the muscles. The fitter you are, the quicker your heart rate returns to normal.</p> <p>(Some children may find it hard to find their pulse point, so it might be a good idea to encourage them to find it sometime before the lesson, e.g. after exercise in a PE class)</p>
TRIGGER QUESTIONS	<p>Where is your heart? What does it do? (<i>Heart pumps blood to all parts of the body.</i>)</p> <p>Why is it so important? (<i>The blood brings oxygen to the muscles.</i>) What is your heart rate? How would we measure it? Do you notice anything about your heart rate after you have been running? Or when you are frightened?</p>
CONTENT STRANDS	<p>Living things – Myself, Human life</p> <p>Integration with SPHE - Taking care of my body, PE</p>
SKILLS	Investigating, recording, analysing
ACTIVITIES	<p>1) Comparing heart rate before and after exercise</p> <p>Ask the children to take their own pulse. They can count the number of beats in 30 seconds and double this to get the number of beats per minute. They should record this. Then allow the children to run around or skip for 5 minutes and record their pulse using the same method. Finally let them rest for a few minutes and then take their pulse again and record it. How long did it take to return to the normal rate?</p> <p>Discuss with the children what happened to their pulse rate after exercise. Did it increase, stay the same or fall?</p> <p>The children can design a table or graph to show their results. Results can be collated to create a group or class chart.</p> <p>2) See your pulse!</p> <p>Find your pulse point on the inside of your wrist below your thumb. Place a piece of plasticine (or blu-tack) on this point and push one end of a drinking straw into the plasticine so that it stands upright from your wrist. Lay your arm flat on the table. If you keep your arm very still you may notice the straw rocking backwards and forwards slightly as the blood pumped by your heart passes through your wrist. If you have a watch you or your friend can count the number of times the straw rocks in one minute.</p>
SAFETY	Children should be physically fit for this exercise. Children with medical problems should not be put at risk when investigating the effect of exercise on heart rate.
FOLLOW-UP ACTIVITIES	<p>Measure breathing rate before and after exercise using a similar method.</p> <p>There are lots of lesson ideas and activities on HeartPower! This is the American Heart Association resource for teaching about the heart and keeping it healthy. You will find it at http://www.americanheart.org/presenter.jhtml?identifier=300357</p>