	Testing Physical Fitness	*Lesson Plan*
Activity		*Notes* T: Teacher P: Pupil
1	**Introduction** T: Research has shown the correlation between inactivity and heart disease and so regular exercise is important for our health. But how can we test physical fitness? T: Pulse rate is one of the indicators and, in particular, how quickly it returns to its normal rate after strenuous exercise. What would you expect to happen if you are very fit? *(Pulse rate returns quickly to normal)* T: Why? *(Heart is better able to deal with stress if it is healthy)*	Discuss the problem with Ps; use their ideas.

2	**Gallagher and Brouha Test**
	T: In this test, the person exercises by stepping onto and off on a bench (or stair) of height 18 inches for boys, 16 inches for girls.
	The tester shouts, "Up – 2 – 3 – 4" continuously, the 'Up' command coming every 2 seconds for 4 minutes, the person continuing for as long as possible up to the complete four minutes.
	The **pulse rate** is taken at the following times after the person stops excising:
	
	$1 - 1\frac{1}{2}$ minutes; $2 - 2\frac{1}{2}$ minutes; $3 - 3\frac{1}{2}$ minutes.
	
	In each case the number of beats in the half minute is multiplied by 2 to give the pulse rate.
	
	T: There is a formula for this – it's known as the **fitness index**.
	
	T: For example, suppose after the 4-minute exercise,
	    $p_1 = 90$, $p_2 = 70$, $p_3 = 60$
	  What is the fitness index?
	$$\left(\text{P: Index} = \frac{50 \times 240}{\left(90 + 70 + 60\right)}\right.$$
	$$\left. \approx 55\right)$$
	
	Suppose there is a quicker recovery, for example,
	    $p_1 = 90$, $p_2 = 65$, $p_3 = 60$
	
	Work out the fitness index.
		Give out OS1.
		
		Get Ps to work out index at board.
		
		Ps work individually or in pairs; checking.

3	**Practical Work** T: Use the date from your PE class to obtain your index. (Alternatively, you could set the class to obtain the graphs shown on OS1.)	This needs to be planned so that Ps already have the data (or it could be part of the lesson).