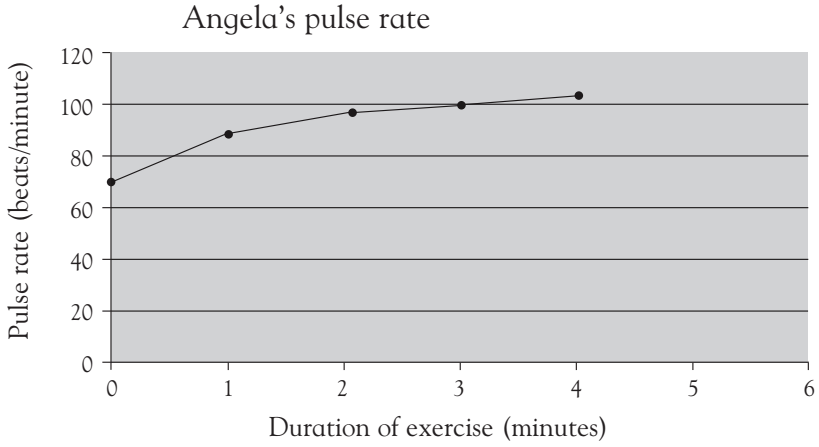
# Put your heart into exercise

## Background knowledge

Your heart contracts to push blood through your body. The contractions are called heartbeats. You can feel your *heartbeat*, or pulse, by placing a finger across blood vessels close to the surface of your skin. Your pulse rate is a measure of how many times your heart beats in 1 minute. When you exercise, your muscles work harder and need more oxygen. Exercise makes the pulse rate go up so that the blood can deliver more oxygen to the muscles.

## Science activity

Angela measured her pulse rate after 1 minute, 2 minutes, 3 minutes, and 4 minutes of exercise. She plotted her results on this graph.




Describe the relationship between exercise and pulse rate. .....

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Can Angela's pulse rate go on increasing? Give reasons for your answer. What would her pulse rate be after six minutes of exercise? Plot this on the graph.

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## Science investigation

**Take extra care - ask an adult to supervise you.**
Mark where your pulse is with an X on your wrist so you can easily find it again. Use washable ink. Take your pulse for 15 seconds and then multiply by 4. This will give you your pulse rate for 1 minute. Try this 2–3 times for accuracy. Next, run in place for 3 minutes. Quickly take your pulse. Continue to take it until it is back to your resting pulse rate. Graph your data.

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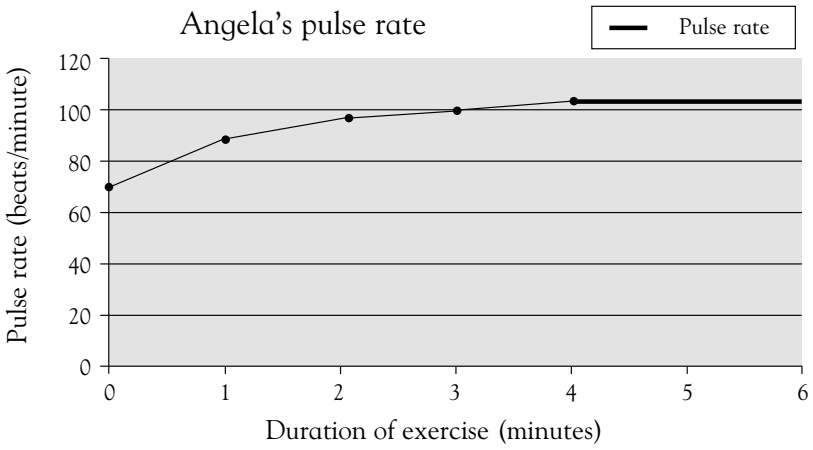


Describe the relationship between exercise and pulse rate. The more Angela exercises, the faster her pulse rate is.

Can Angela's pulse rate go on increasing? Give reasons for your answer. What would her pulse rate be after 6 minutes of exercise? Plot this on the graph.

Angela's pulse rate can't go on increasing. It will level out.

## Science investigation

(!) Tell the young investigator to use the forefinger and middle finger to feel a pulse. After exercise the pulse rate will go up. If the child has any respiratory or heart ailments, someone who does not should be used to create date for the experiment.