

## Pick up the beat

This investigation will help you to answer the following questions.

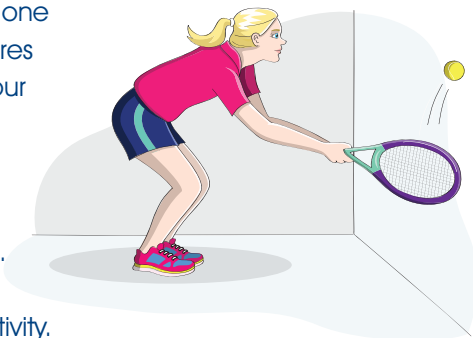
- Is tennis good exercise?
- How do different tennis activities affect heart rate?

You will need to work in pairs to carry out a set of simple tests.

1. First, find each person's resting heart rate in beats per minute (bpm) and enter it in the chart below:

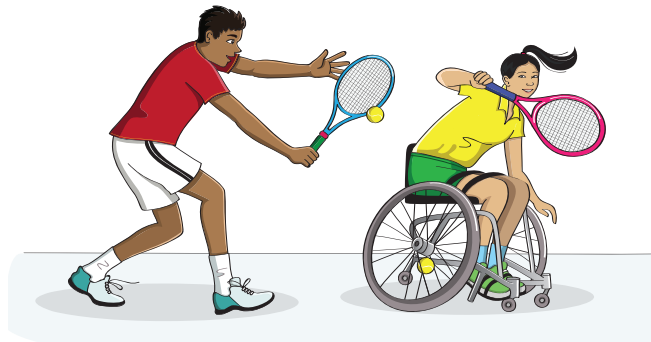
Name	Heart rate when resting (bpm)	Activity: [ ] Heart rate (bpm)	Activity: [ ] Heart rate (bpm)	Activity: [ ] Heart rate (bpm)

2. Call the oldest person in each pair 'A' and the youngest 'B'. 'A' does one minute of hitting a ball against a wall with a tennis racket. 'B' measures 'A's' heart rate and records it in the chart above. Swap over. Write your answers in the third column.

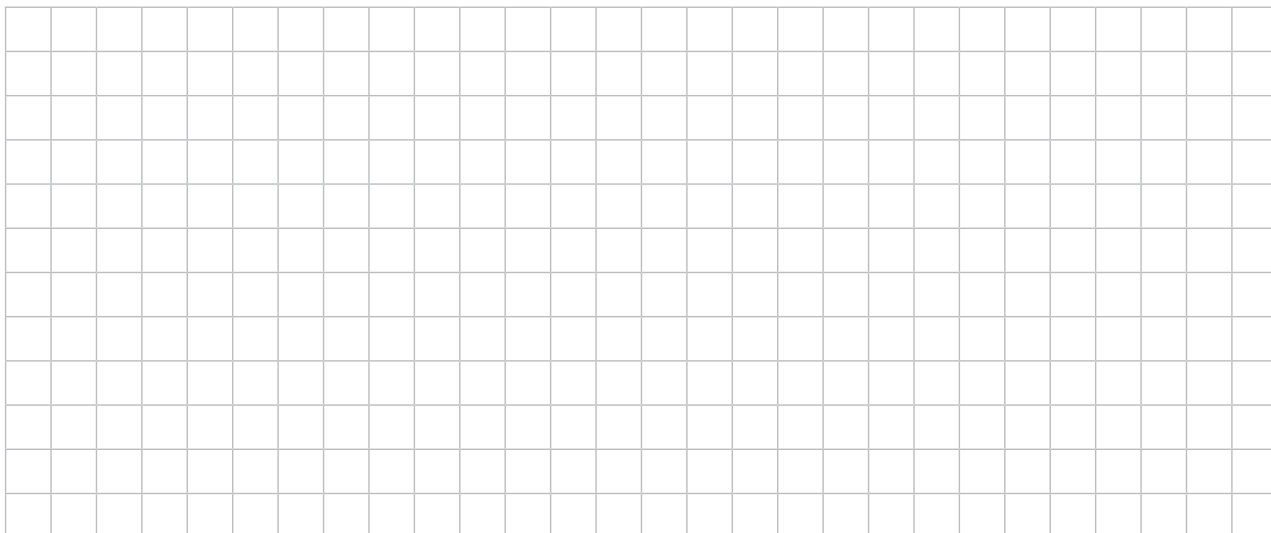


3. Try a more strenuous tennis-related activity (for example student 'A' travels between two markers bouncing a tennis ball for one minute). Write your activity at the top of the fourth column. Again, each person's heart rate should be measured and recorded after the activity.

4. Try a one-minute tennis rally (keeping the ball in play) and again record the results in the fifth column.



5. Plot the results on a simple graph using the grid below.



## Answer these questions:

6. Which tennis activity was the best form of exercise? Why?

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7. Why does playing tennis raise a person's heart rate?

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## Further investigations

Compare other sport activities to tennis by measuring heart rate, e.g. bouncing a basketball, dribbling a hockey ball, catching a cricket ball etc.