

Learning about circulation... in a heartbeat!

Aim

Let's investigate what happens to our heart rate when we rest and exercise.

Method

Use the Curiscope 'Virtuali-Tee' app to take heart rate measurements and then note them down on the table.

Measure your heart rate every minute until it has returned to near the resting rate, this should be less than 10 minutes.



Materials

Timer or stop watch

Curiscope 'Virtuali-Tee' app heart rate monitor

Results

Time (minutes)	Activity	Heart rate (BPM)
0	Resting	
1	Complete 1 minute of exercise (e.g. star jumps)	
2	Recovering	
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		

The **ULTIMATE** way to learn about the body



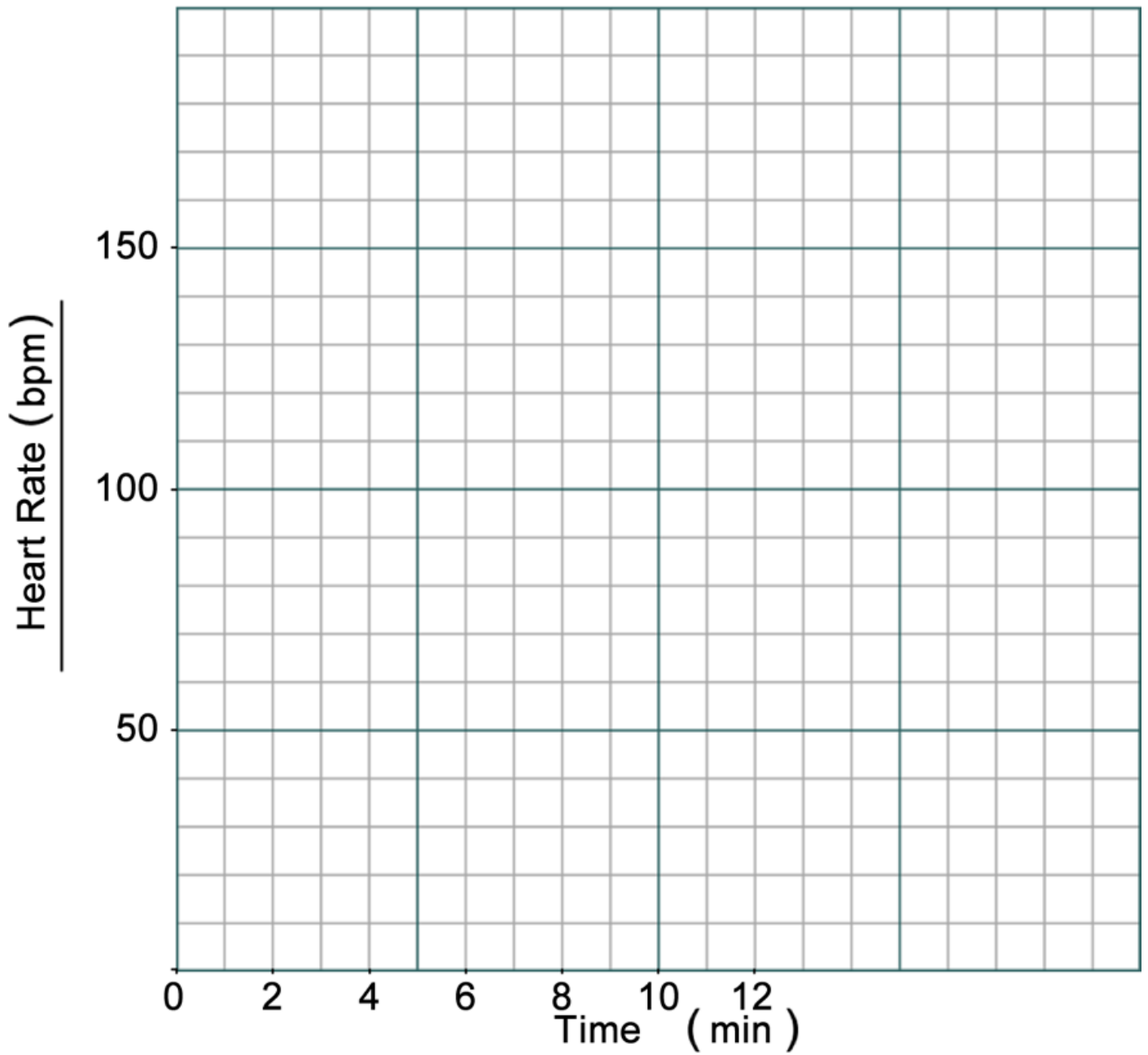
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Discussion

1. What happened to your heart rate when you exercised?

2. Did your heart rate stay the same after exercising? Describe what happened.

3. Did you notice anything different about your breathing rate while you were doing the experiment? Describe what happened.

Conclusion

What did you discover about your heart rate when you rest, exercise and recover?

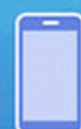
Extension

Can you devise an investigation to show the effects of different activities on heart rate? Does not need to be sports!

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Group organisation – 4 students per group

Student 1: The Human Subject
Does the exercise activity and has heart rate read as instructed.

Student 2: The Timer
Times the activity and informs other group members when to take measurements.

Student 3: Heart Rate Measurer
Takes the heart rate of the Subject when instructed.

Warning: the heart rate monitor can get hot and the Subject must be free to move away from the light.

Student 4: The Recorder
Writes down measurements as taken by the Heart Rate Measurer.

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Group organisation – 3 students per group

Student 1: The Human Subject

Does the exercise activity and measures heart rate when instructed.

Warning: the heart rate monitor can get hot and the Subject must be free to move away from the light.

Student 2: The Timer

Times the activity and informs other group members when to take measurements.

Student 3: The Recorder

Reads the heart rate and writes down measurements as taken by the Heart Rate Measurer.

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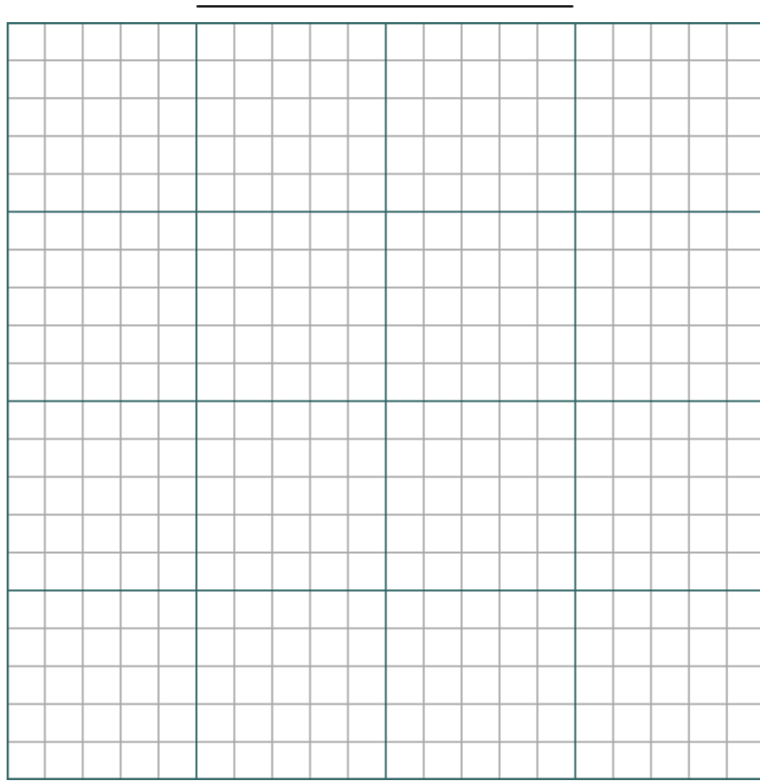
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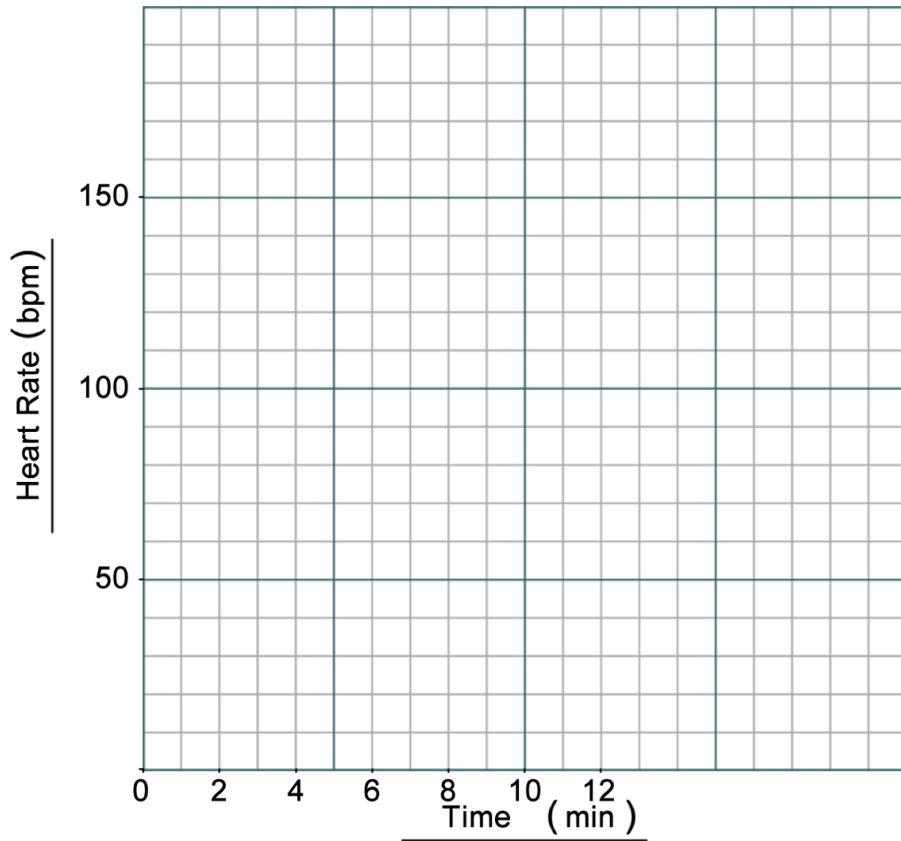


Dependent variable Heart rate (bpm)



Independent variable Time (min)

Title: _____



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