




Heart Beat

Approach: One to one

Level: Year 4 and year 8

Resources: Stethoscope, video.

<i>Questions/instructions</i>	<i>% responses</i>	
	<i>y4</i>	<i>y8</i>
Show student the stethoscope.		
1. Do you know what this is called?	7	32
<i>If not known, tell student it is a stethoscope.</i>		
2. Do you know what it is used for?		
Listening to:		
heart/pulse	75	90
lungs	7	12
other body sounds	15	8
<i>If not known, say "It is used for listening to a person's heart beat".</i>		
I'm going to show you a short video which shows a doctor holding a stethoscope against someone's body and listening to the heart beat.		
Play video — Part 1		
		
3. You've heard someone's heart beating. I would like you to try to explain to me what is actually happening in the body that causes the sound of the heart beat you can hear.		
Allow time		
heart muscle contracting	49	71
blood being pumped or circulated	49	75
Now let's listen to that person's heart beat again.		
Play video — Part 2		
		
4. What do you notice about the person's heart beat now?	27	62
<i>slower</i>		
5. What might have caused the heart beat to go slower?		
6. So why do you think the heart did not need to beat so fast?		
Activity patterns: (eg. sleep, rest, relaxation)		
full and comprehensive	1	3
some good ideas	17	51
limited/fuzzy	20	19
poor	62	27
Body mechanisms: (less oxygen/nutrients needed, less waste to be removed)		
both clearly covered	0	2
good ideas but incomplete	1	6
limited/fuzzy	7	13
poor	92	79

<i>Questions/instructions</i>	<i>% responses</i>	
	<i>y4</i>	<i>y8</i>
Now let's listen one more time to that person's heart.		
Play video — Part 3		
		
7. What do you notice about the heart beat this time?	96	98
<i>faster</i>		
8. What might have caused the heart beat to go faster?		
9. Why do you think the heart needed to beat faster?		
Activity patterns: (eg exercise, stress, illness)		
full and comprehensive	1	6
some good ideas	48	79
limited/fuzzy	15	9
poor	36	6
Body mechanisms: (more oxygen/nutrients needed, more waste to be removed)		
both clearly covered	0	2
good ideas but incomplete	4	12
limited/fuzzy	10	18
poor	86	68
10. What is the main job of the heart?		
Pumping blood:		
clear explanation	39	69
on right track	13	11
other	48	20
11. Why do you think we have blood in our bodies?		
<i>(Consider oxygen, nutrients, waste, chemical messengers, repair agents)</i>		
full and comprehensive	0	4
good	3	12
moderate	7	12
poor	90	72
At the end of today's activities you can try the stethoscope if you like.		

Commentary

Many students at both year levels had a reasonable understanding of the function of the heart and how pulse rate is affected by activity patterns. Few students, however, understood the reasons for the link between pulse rate and activity patterns. The results for question 4 suggest that students were not clear about what they were expected to say. They did much better with question 7.