

**YEAR 6**

The Circulatory System and Keeping Healthy

Three sections. Section C uses numbers, because heart rate is the one part of Year 6 science where an experiment gives you a figure to work with. Answer the explain questions in full sentences.

Name: _____

Date: _____

Score: _____

A. The parts and their jobs

Heart, vessels, blood, lungs. Each one carries or moves something.

- 1 Name the organ that pumps blood around the body.

- 2 Name the three types of blood vessel.

- 3 Which vessels carry blood *away* from the heart?

- 4 Which vessels carry blood *back to* the heart?

- 5 Which vessels are one cell thick, so that substances can pass through their walls?

- 6 Name the two substances the blood carries to every cell in the body.

- 7 Name the waste gas the blood carries away from the cells.

- 8 Which organ does blood travel to in order to collect oxygen?

B. Exercise, diet and health

Working muscles need more oxygen, and everything follows from that.

9 What happens to your heart rate during exercise?

10 Explain why.

11 Name the food group that provides the body's main source of energy.

12 Name the food group needed for growth and repair.

13 Give one effect of smoking on the circulatory system.

14 Give one reason exercise is good for the heart.

C. Heart rate calculations

Beats per minute times minutes gives total beats.

15 A pupil's resting heart rate is 72 beats per minute. How many beats in 5 minutes?

16 After exercise it rises to 120 beats per minute. How many more beats per minute is that?

17 How long would 600 beats take at 120 beats per minute?

18 Two pupils run the same race. One returns to a resting heart rate in 2 minutes, the other in 6. What does that suggest, and why is it not proof?

19 Why should you measure a resting heart rate before exercising rather than after?