SCIENCE FOUNDATIONS

Human body systems

Difficulty level: Intermediate

Science Foundations

This document was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

Overview of the concept

This is how your heart, lungs, stomach, and muscles work together, so eating lunch can end up as energy for a run. Your lungs take in oxygen, your gut breaks food down, and your blood carries both to the muscles that need them. When one system struggles, the others feel it, which is why a chest cold leaves your legs tired on the stairs. Knowing body systems tells you why your body is a team effort, not a set of separate parts.



© 2026 Brett Robbins. All Rights Reserved.

Worked examples

EXAMPLE 1

Q After a sprint, Lia's heart is pounding and her leg muscles are burning. Which system carries oxygen to her leg muscles, and which organ pumps it?

SOLUTION

This is a systems-working-together question, so ask which system moves things around the body. That is the circulatory system: the heart pumps blood, and the blood carries oxygen.

Her muscles are working hard, so they need more oxygen, and the heart beats faster to deliver it.

So the answer is the circulatory system, and the organ that pumps the blood is the heart.

EXAMPLE 2

Q Mia touches a hot pan and pulls her hand back before she has time to think. Which system sent the signal, and what are its three main parts?

SOLUTION

This is a signal-and-response question. The system that carries messages around the body is the nervous system, and it is the fastest system in the body.

The signal travels from the nerves in her hand, up the spinal cord, to the brain, and the reply travels back the same way to the muscles in her arm.

So the answer is the nervous system, and its three main parts are the brain, the spinal cord and the nerves.

© 2026 Brett Robbins. All Rights Reserved.

Practice questions

1 Which system breaks down food and absorbs nutrients into the blood?

- **A** Circulatory system
- **B** Digestive system
- **C** Respiratory system
- **D** Nervous system

Understand It with Pulse | Flag a mistake

2 Which system takes in oxygen and releases carbon dioxide?

- **A** Digestive system
- **B** Circulatory system
- **C** Respiratory system
- **D** Excretory system

Understand It with Pulse | Flag a mistake

© 2026 Brett Robbins. All Rights Reserved.

3 Name the main organ of the circulatory system.

- A Heart
- B Lungs
- C Liver
- D Brain

Understand It with Pulse | Flag a mistake

4 Put these in the order food travels through them: stomach, mouth, small intestine, oesophagus.

- A Mouth, stomach, oesophagus, small intestine
- B Oesophagus, mouth, stomach, small intestine
- C Mouth, oesophagus, small intestine, stomach
- D Mouth, oesophagus, stomach, small intestine

Understand It with Pulse | Flag a mistake

© 2026 Brett Robbins. All Rights Reserved.

5

Which two systems work together to get oxygen from the air to the muscles?

A Digestive and skeletal systems

B Respiratory and circulatory systems

C Respiratory and digestive systems

D Circulatory and nervous systems

Understand It with Pulse | Flag a mistake

6

Which system gives the body support and shape and protects the brain?

A Muscular system

B Skeletal system

C Nervous system

D Digestive system

Understand It with Pulse | Flag a mistake

© 2026 Brett Robbins. All Rights Reserved.

7 What connects muscles to bones?

A Ligaments

B Cartilage

C Tendons

D Joints

Understand It with Pulse | Flag a mistake

8 Where are nutrients absorbed into the blood?

A Stomach

B Small intestine

C Large intestine

D Oesophagus

Understand It with Pulse | Flag a mistake

© 2026 Brett Robbins. All Rights Reserved.

9 **Which organs filter waste from the blood?**

- **A** Liver
- **B** Lungs
- **C** Kidneys
- **D** Heart

Understand It with Pulse | Flag a mistake

10 **A runner's legs need both food energy and oxygen. Which three systems must work together to supply them?**

- **A** Digestive, skeletal and nervous systems
- **B** Respiratory, circulatory and muscular systems
- **C** Digestive, respiratory and excretory systems
- **D** Digestive, respiratory and circulatory systems

Understand It with Pulse | Flag a mistake

© 2026 Brett Robbins. All Rights Reserved.

ANSWER KEY

1. Digestive system
2. Respiratory system
3. Heart
4. Mouth, oesophagus, stomach, small intestine
5. Respiratory and circulatory systems
6. Skeletal system
7. Tendons
8. Small intestine
9. Kidneys
10. Digestive, respiratory and circulatory systems

© 2026 Brett Robbins. All Rights Reserved.