

SCIENCE · Y3–Y6

The Human Body

Knowledge Organiser — Y3–Y6

Major organ systems

1

Skeletal system

206 bones give the body structure, protect organs, and allow movement. Joints connect bones.

Example: skull, vertebrae, femur, rib cage

2

Muscular system

Over 600 muscles move the skeleton. Muscles work in PAIRS — one contracts while the other relaxes.

Example: bicep/tricep; quadricep/hamstring

3

Digestive system

Breaks down food into nutrients the body can use. Mouth → oesophagus → stomach → small intestine → large intestine.

4

Circulatory system

Heart pumps blood around the body through arteries (away from heart), veins (back to heart), and capillaries.

5

Respiratory system

Lungs take in oxygen from the air and release carbon dioxide. Diaphragm muscle drives breathing.

6

Nervous system

Brain and spinal cord control and coordinate the body's responses. Nerves carry signals.



Digestive system in order

The journey of food

1. MOUTH: teeth break food down; saliva begins chemical digestion
 2. OESOPHAGUS: muscular tube that pushes food down to the stomach
 3. STOMACH: produces acid that breaks down proteins; churns food into a liquid
 4. SMALL INTESTINE (6–7m long): absorbs nutrients into the blood
 5. LARGE INTESTINE: absorbs water; remaining solid waste is stored
 6. RECTUM and ANUS: solid waste (faeces) is expelled
- Total transit time: 24–72 hours

