TOPIC PACKS · GRADES 2–5

The Human Body

A cross-curricular themed week

Suggested timetable

Day	Subject	Activity
Monday	Science	Skeleton — bones, joints, why they matter
Tuesday	Science	Organs and what they do — heart, lungs, brain
Wednesday	Maths & PE	How fast is your heart? Pulse rate experiments
Thursday	Art	Life-size body outline — label everything
Friday	English	'A day in the life of a red blood cell' — narrative writing

Day 1 — Skeleton facts

Question	Answer
How many bones in an adult?	206 (children have more — some fuse together as you grow)
Smallest bone?	The stapes in the ear — about 3mm long
Longest bone?	The femur (thigh bone) — about a quarter of your height
Strongest bone?	Also the femur — can support 30 times your body weight

Question	Answer
What's a joint?	Where two bones meet and can move
Hardest substance in body?	Tooth enamel — harder than bone

Day 1 activity

Show a skeleton diagram. Children label: SKULL, RIBS, SPINE, PELVIS, FEMUR (thigh), HUMERUS (upper arm), RADIUS and ULNA (forearm), TIBIA and FIBULA (lower leg). Then in pairs, they take turns being the 'doctor' and pointing to bones on their partner. The partner says the name. Builds vocabulary fast.

Day 2 — Major organs and their jobs

Brain Your control centre. Sends messages to every part of your body through nerves. Even when you sleep, it's busy organising and remembering.	**Heart** A muscle the size of your fist. Pumps blood around your body about 100,000 times a day. Never stops as long as you're alive.
Lungs Two big sponges in your chest. Take in oxygen when you breathe in, push out carbon dioxide when you breathe out. Children breathe about 23,000 times a day.	**Stomach** Where food goes after you swallow. Mixes food with strong acid to break it down. Acid is so strong it would burn your skin — but the stomach has a special lining.
Kidneys Two bean-shaped organs that clean your blood, removing waste as urine. They process about 180 litres of blood every day.	**Liver** Largest organ inside your body. Has hundreds of jobs — cleaning blood, storing energy, helping digestion. The body's chemical factory.

Day 3 — Pulse rate maths (45 min)

Children find their PULSE on their wrist or neck. Count beats for 15 seconds. Multiply by 4 to get beats-per-minute (BPM). RECORD: • Resting (sitting still 1 minute then count) • After 1 minute jumping on the spot • 3 minutes after stopping DISCUSS: Why does the heart speed up when you exercise? (Muscles need more oxygen, so blood pumps faster.) Why does it slow down again? (Muscles aren't working hard anymore.) COMPARE: Adult resting pulse is 60–100 BPM. Children are usually 70–110. Athletes can be as low as 40.

Day 4 — Life-size body outline (60 min)

MATERIALS: Long roll of paper, marker pens, coloured pencils. 1. Children pair up. One lies on the paper. Partner draws their outline in pencil. 2. Swap and repeat. 3. Each child fills in their outline. Add: skeleton (key bones), heart, lungs, stomach, brain, eyes, ears. 4. Label everything. DISPLAY: Mount finished body outlines around the classroom for the whole topic. They look spectacular and become a reference children point to all week.

Day 5 — Red blood cell story (60 min)

WRITING TASK: 'A day in the life of a red blood cell.' Children write a first-person narrative from the cell's perspective. MUST INCLUDE: • Born in the bone marrow • Travelling through arteries (highways) • Picking up oxygen in the lungs • Delivering oxygen to a muscle that's exercising • Getting cleaned in the kidneys • Eventually being recycled in the liver MODEL OPENING: 'I was born deep inside a bone, in a place called the marrow. The day I was made, I had one job — to carry oxygen everywhere it was needed...'

End-of-week class quiz

1. How many bones in an adult human?

2. What's the largest organ inside your body?

3. What does the brain use to send messages?

4. What gas do we breathe IN?

5. What gas do we breathe OUT?

6. What's the strongest muscle for its size? (Hint: jaw muscle, the masseter)

7. How many times does your heart beat in a day? (About 100,000)

8. What do red blood cells carry?

9. What do white blood cells do? (Fight germs)

10. Which body part does NOT have any bones? (Tongue, eyeballs, ears)