

living-things

The digestive system: the journey of food

Lesson at a glance

Open by asking where the last bite of food goes after you swallow. Project the five stops on the one-way journey (mouth, oesophagus, stomach, small intestine, large intestine), then groups lay organ cards along a floor rope and take turns squeezing a soft ball through a fabric tube to feel peristalsis. A whole-class point-check pins the blood-entry and water take-back jobs, then pairs fix a deliberately wrong order on the flow-builder interactive. Pupils draw and label the journey in the Investigation Journal before a short jobs talk.

Learning objectives

- Order the main parts of the digestive system along the one-way journey of food
- Describe peristalsis as the squeezing action that moves food along

Before the bell – prep

Print one set of five organ cards per group the day before. Gather one rope/string or masking-tape line, one soft fabric tube (long sock works), and one soft ball per group. Clear two or three floor lanes (~2 m each) before pupils arrive so ropes never cross walkways.

Materials

Item	Qty	Per	Source	Low-cost substitute
long rope or thick string (about 2–4 m, or a masking-tape line)	1	group	classroom	masking-tape line on the floor used as the gut path
digestive organ cards (mouth, oesophagus, stomach, small intestine, large intestine)	1	group	provided printable	five sticky notes with the organ names written large
soft fabric tube (long sock or fabric sleeve)	1	group	classroom	clean tights-leg tube brought from home (cut open at the toe if needed so the ball can exit)
small soft ball (foam or fabric)	1	group	school kit	a pair of rolled socks
Investigation Journal page	1	pupil	classroom	plain paper with a title line for the journey drawing



Safety watch-point

Ropes and tape lines are trip hazards — clear lanes, no crossing walkways, soft balls only, fabric-tube work at the lane end or desks. Coil and clear the floor before the board beat.

Teaching moves

- **The one-way journey:** Project only the five stop names and the oesophagus say-it cue (ee-SOF-uh-gus). Hold the word peristalsis until after the fabric-tube feel. Model the worked prediction aloud: wonder which stop follows the mouth, predict oesophagus, place those two cards in order.
- **Build the gut rope and model the squeeze:** Stage lanes first; give each group a ~2 m segment and keep one walkway clear. Groups place cards Mouth → oesophagus → stomach → small intestine → large intestine, reading each aloud. Hold the fabric tube almost level and have a pupil squeeze behind the ball in waves — only then name peristalsis. Walk the line asking watchers: Are they right? What would come next?
- **Check the jobs on your rope:** Keep ropes down. Call: point to where useful bits enter the blood (small intestine); point to where water is taken back (large intestine). Ask one or two groups why those stops cannot swap. Then coil ropes, stack cards, clear the floor before seats and the board.
- **Catch the wrong order:** Open the flow-builder in explore mode and place one card wrong on purpose before anyone drags (e.g. stomach before oesophagus). Pairs fix it at the board while the class presses for one-way reasons. Do not ask them to show peristalsis on screen — link the corrected arrows back to the fabric-tube squeeze by talk only.
- **Record the journey:** Pupils draw the one-way journey in the Investigation Journal with simple shapes and clear labels, plus a note or arrow for the peristalsis squeeze. Circulate: What comes after the stomach? Where will you mark the squeeze? Check large intestine is last of the five.
- **What happens at each stop?:** Prompt job language, not lists: What is different about the stomach's job and the small intestine's job? If peristalsis stopped, what would happen to the journey? Surface mouth breaks up, oesophagus travels, stomach mashes, small intestine feeds the blood, large intestine takes water back, peristalsis moves food between stops.

What it should show

Correct rope and board order is mouth → oesophagus → stomach → small intestine → large intestine. Pupils should say squeezes or pushes move the ball, not sliding alone, and point small intestine for blood-entry and large intestine for water take-back. A jumper card (stomach first, or intestines swapped) is a setup/thinking error — re-voice one-way journey and re-place from the mouth.



Misconceptions & interventions

- **The stomach does everything — once food is swallowed the stomach finishes the whole job.** — At the rope, have them point to small intestine for useful bits entering the blood and large intestine for water take-back. Ask why those jobs cannot sit at the stomach card.
- **Food just falls down the body by gravity.** — Hold the fabric tube almost level and have them squeeze the soft ball forward. Ask what did the work — sliding or squeezing? — then name that wave peristalsis.
- **Stops can swap or food can jump backwards to an earlier part.** — On the deliberately wrong board order, press: Why can that card not sit there? Rebuild mouth-first and restate the one-way journey rule.

Differentiation

Emerging	Developing	Proficient
• Give only the first and last organ cards and ask the group to fill the middle three from the card texts. • Pair at the teacher lane for the fabric-tube squeeze so they feel push before placing cards.	• After order is right, ask them to point on the rope where useful bits enter the blood and where water is taken back. • Prompt a one-line journal note under the peristalsis arrow: squeezes push food along.	• Challenge: explain why small and large intestine cannot swap jobs, using the card texts. • Early finishers mark on their journal drawing where energy from a sandwich enters the blood.

Cross-curricular hook

Links to SPHE body awareness and oral English — pupils justify order aloud using because and next.