living-things

The digestive system: the journey of food

Lesson at a glance

Open by asking where the last bite of food goes after swallowing. Pupils learn the one-way journey idea, then stretch a rope gut on the floor and place five organ cards in order. They push a soft ball through a fabric tube to feel the squeeze-wave later named peristalsis. A brisk why-this-order talk and a deliberately wrong board sequence lock the path, then pupils draw and label the journey in the Investigation Journal.

Learning objectives

- Order the main parts of the digestive system along the one-way journey of food
- Explain that muscles squeeze food along the tubes, and that this squeezing is called peristalsis

Before the bell — prep

Print one organ-card set per group the day before. Clear two or three floor lanes (~2 m each); masking tape can mark the gut path. Have one rope/string, one soft fabric tube (long sock works) and one soft ball per group ready but out of sight until the model step.

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

Lesson 3

Safety watch-point

Clear walkways before ropes go down; no ropes across the door path. Soft balls stay at each lane or desk — no rolling or throwing across the room.

Teaching moves

- **The one-way journey:** Write only three board lines: digestive system, one-way journey, and ee-SOF-uh-gus. Keep the five stop names and the word peristalsis off the board. Model aloud: I wonder what comes after the mouth; I predict the oesophagus; I will test with the cards.
- **Build the gut rope and model the squeeze:** Stage lanes first so ropes never cross the door walkway; stagger half the class if space is tight. Groups lay Mouth → oesophagus → stomach → small intestine → large intestine and read each card. Hold the fabric tube almost level; a pupil squeezes behind the ball in waves, then name peristalsis from that feeling.
- **Could it be any other way?:** Four-minute standing talk with ropes still down. Ask what goes wrong if stomach and small intestine swap, and why water must be taken back near the end. Press with why does that matter? then coil kit before seats return.
- **Catch the wrong order:** Open the flow-builder interactive with one card deliberately wrong before anyone drags. Invite pairs to the board and demand one-way reasons, not silent swaps. After the order is fixed, link the arrows back to the fabric-tube squeeze — do not ask pupils to show peristalsis by dragging.
- **Record the journey:** Pupils draw the five stops in order on the Investigation Journal page with a short note or arrow for peristalsis. Circulate: What comes after the stomach? Where will you mark the squeeze? Accept simple shapes; check large intestine is last.
- **What happens at each stop?:** Draw out job language: mouth starts break-up, stomach mashes, small intestine passes useful bits into the blood, large intestine takes water back, peristalsis moves food between stops. If someone says the stomach does everything, steer back to the small intestine card.

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 gravity alone. A group that puts stomach before oesophagus, or swaps the two intestines, has missed the one-way path — walk the line and ask what would come next.

Misconceptions & interventions

- **The stomach does the whole job of digestion.** — Point back to the small-intestine card: useful bits (like energy from a sandwich) mainly enter the blood there. Ask what the stomach's mash is for if the next stop still has work.
- **Food just falls down the tubes by gravity.** — Hold the fabric tube almost level and have them squeeze the ball forward. Ask what did the work — sliding or squeezing? — then name that wave peristalsis.
- **Being sick means the everyday journey is two-way.** — Acknowledge calmly that when unwell the body can push food the wrong way, then return quickly: the everyday model is still one-way, mouth to large intestine.

Differentiation

Emerging	Developing	Proficient
• Give only the first and last organ cards and ask the group to fill the three middle stops on the rope. • Pair at the teacher table for the fabric-tube squeeze so they feel the wave before naming it.	• After a correct order, ask them to point to where useful bits enter the blood and where water is taken back. • Prompt on the Journal page: mark the squeeze with an arrow between stops.	• Challenge early finishers to argue why large intestine cannot sit before small intestine using the mash and water ideas. • Ask: if peristalsis stopped, what would happen to the journey?

Cross-curricular hook

Links to SPHE Myself — naming body systems that keep us well — and to oral language as pairs argue why a wrong board order cannot work.