

## Lesson 3 · living-things

## The Digestive System: The Journey of Food

## Lesson at a glance

Open by asking pupils where a swallowed bite of lunch goes and how long the gut is, then think aloud while squeezing a soft ball through a tight tube to show food gets pushed, not dropped. Groups lay organ cards along a long rope laid straight as the gut, predicting where food spends most time, then justify the order on the IWB interactive. Close with display-only science-talk and a journey drawing in the Investigation Journal.

## Learning objectives

- Order the main parts of the digestive system as a one-way journey
- Describe how the body squeezes food along (peristalsis) and breaks it down

## Before the bell – prep

Print one organ-card set per group (mouth, food pipe, stomach, small intestine, large intestine, each with its one-line job). Gather a long rope and a tight leg (or long sock) plus a soft ball per group – keep two or three spare tights in your kit. Crucially: push back desks the night before and count your groups against cleared floor; a straight 5m rope per group needs real space, so plan a shared whole-class build if it won't fit.

## Materials

Item	Qty	Per	Source	Low-cost substitute
long rope or thick string (about 5 metres)	1	group	school kit	a line of string or a skipping rope
printed organ cards (mouth, food pipe, stomach, small intestine, large intestine, each with its job)	1	group	classroom	write each part name and its job on a sheet of paper
old tights leg	1	group	school kit	the leg of a long sock or a tube of stretchy fabric
small soft ball	1	group	school kit	a scrunched ball of newspaper or a small orange

**Safety watch-point**

Watch trip hazards once ropes are laid across cleared floor — keep pupils kneeling or seated beside the rope, not running along it, and pack ropes and tights away tidily at the end.

**Teaching moves**

- **Getting Started:** Take a few guesses for how long the stretched-out gut is, but don't reveal it — the rope does that next. Ask 'how does food keep moving when you lie down?' to plant peristalsis without naming it.
- **The Journey of Food:** Read the concept table, then run quickly down the jobs so pupils get the shape without front-loading detail. Do the think-aloud demo: squeeze the ball through the tights tube and tip it upwards to show food moves even against gravity. Head off the idea that food falls down by gravity — peristalsis squeezes it along.
- **Lay Out the Gut Rope:** Decide your route first: one rope per group if floor allows, or one shared whole-class build with every group still getting a tights tube and ball. As groups order cards, drive science-talk: 'what happens in the stomach? Why is the small intestine so long and folded?' Watch for groups ordering by guesswork rather than by each part's job.
- **Check the Jobs on Screen:** Run the IWB interactive as a reasoning check, not a re-build. For each arrow ask 'why does this part come AFTER the one before it? What job had to happen first?' Keep it low-stakes — several reasons are fine. Fold in pupils away from the board with 'are they right? What comes next and why?'
- **Make Sense Together:** Start with display-only talk: revoice pupil ideas and tie back to peristalsis — gut muscles squeeze food along, gravity isn't needed. Confirm the order, then direct pupils to the Investigation Journal to draw the food journey, label each part in order, and add a direction arrow.

**What it should show**

Pupils should settle the one-way order: mouth, food pipe, stomach, small intestine, large intestine. The prediction answer is the small intestine — food spends longest there being soaked up — but praise any reasoned prediction. The ball moving through the tipped-up tights tube should convince them food is squeezed, not dropped. A group placing the large intestine before the small intestine has usually ordered by size rather than by the job each part does — re-voice the jobs.

**Misconceptions & interventions**

- **Pupils think food falls down to the stomach because of gravity, so it couldn't work upside down.** — Tip the tights tube upwards and squeeze the ball along it — show the food still moves against gravity. Name it: peristalsis, the gut muscles squeezing food along.
- **Pupils think the stomach is where the body soaks up the goodness from food.** — Re-voice the jobs from the organ cards: the stomach mashes food into a soupy mush, and the long, folded small intestine is where the nutrients are soaked up.



**Differentiation**

Emerging	Developing	Proficient
<ul style="list-style-type: none"> <li>Place the first and last cards (mouth and large intestine) already positioned so the group orders the middle three.</li> <li>Pair with the teacher table and read the one-line job aloud from each card before placing it.</li> </ul>	<ul style="list-style-type: none"> <li>Ask the group to predict which part food spends the most time in and give a reason.</li> <li>On the IWB, have them explain why one part must come after another.</li> </ul>	<ul style="list-style-type: none"> <li>Challenge them to justify every arrow on the interactive, naming the job that has to happen first at each link.</li> <li>Ask why the small intestine is long and folded rather than short and straight.</li> </ul>

**Cross-curricular hook**

Link to the Maths Length strand — compare guesses for the stretched-out gut against the measured rope and order the estimates.