

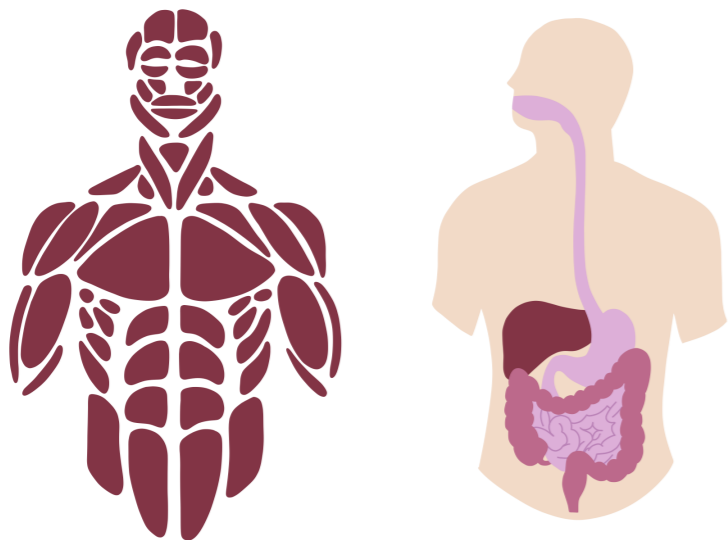
# DIGESTION

## Research and Anticipate



### Anticipate potential hurdles

When children picture the inside of the human body, they tend to think we only have muscles on our limbs.



Children often think that digestion is a simple process, and don't appreciate the stages involved. They might think the digestive system only includes the mouth and stomach, and don't recognise our intestines are part of it.



### Misconceptions in younger children

Check for understanding and build on the ideas that students bring to lessons. Younger children often think that:

Food stays in our bodies forever when we eat it

All fat is bad for us

We only eat food to give us energy

Food melts or dissolves inside us when we eat

Use the RADAAR framework to support curriculum planning, building on the ideas that pupils bring to lessons: <https://eef.li/RADAAR>

## Diagnose and Address



### Diagnostic question

Food we swallow moves through the digestive system. Ask pupils which of these causes it to move through the digestive system:



A Gravity

B Contracting muscles

C Body movements (e.g. walking)

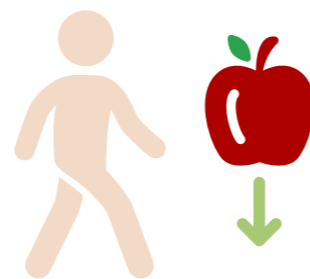
D Swallowing more food to push it along



### Building on ideas

Take time to find out what your students think; allow them to discuss their ideas and reasons. Find ways of uncovering and addressing these misunderstandings.

People talk about walks 'keeping you regular'.



Children find it easy to imagine food being pushed along by swallowing or 'falling' towards the stomach.

These ideas strengthen the common misconception that gravity and body movements are responsible for pushing food through the digestive system.

## Assess and Review



### Explore further using models

An apple in a sock can be used as a model of how food moves through the digestive system. Help pupils to interrogate the model itself.

What does the apple represent?

What does the sock represent?

What do the stripes on the sock represent?



How can this model be used to explain how food moves through the digestive system?

Are there any problems with the model?

Being explicit about models helps pupils understand their own thinking. Inviting them to comment on and improve models can give them extra insight.



### Later links

A secure understanding of these ideas provides a firm foundation for progression to other ideas such as how digestion products are used in cellular respiration. Children often think that it's digestion which releases useful energy from food.



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Text and activities informed by Best Evidence Science Teaching (BEST). Diagnostic questions taken from associated resources. All BEST resources developed by the University of York Science Education Group and the Salters' Institute. <http://www.stem.org.uk/best-evidence-science-teaching>