

Question: How does the food we eat go from inside our mouths to inside the toilet?

National Curriculum Link

Science Y4: Animals, including humans
KS2 Science Working Scientifically

IB Learner Profile Links

Inquirers – Nurture skills for research and curiosity

Knowledgeable – Develop conceptual understanding and engage with issues and ideas

Caring – Show empathy, understanding, compassion and respect for all life

<u>Prior Skills – Y3</u>	<u>New Skills – Y4</u>	<u>Future Skills – Y5</u>
<ul style="list-style-type: none"> • Explain the importance of a nutritionally balanced diet. • Describe how nutrients, water and oxygen are transported within animals and humans • Identify that animals, including humans, cannot make their own food: they get nutrition from what they eat. • Identify that humans and some other animals have skeletons and muscles for support, protection and movement. • Describe and explain the skeletal system of a human. • Describe and explain the muscular system of a human. • Make and record a prediction before testing • Measure using different equipment and units of measure • Record their observations in different ways (labelled diagrams, charts etc.) • Describe what they have found and observed using scientific words • Make accurate measurements using standard units • Explain what they have found out and use their measurements to say whether it helps to 	<ul style="list-style-type: none"> • Identify and name the basic parts of the human digestive system • Describe the function of the organs of the human digestive system • Identify the different types of teeth in humans and their simple functions • Compare the teeth of herbivores and carnivores • Explain what a simple food chain shows • Construct and interpret a variety of food chains, identifying producers, predators and prey • Take measurements using different equipment and units of measure and record what they have found in a range of ways • Explain their findings in different ways (display, presentation, writing) • Make a prediction based on something they have found out and apply science knowledge for further investigating. • Make accurate measurements using standard units • Plan and carry out a fair test • Record and present what they have found using scientific language, drawings, 	<ul style="list-style-type: none"> • Describe the changes as humans develop to old age. • Create a timeline to indicate stages of growth in humans • Explain what puberty (non statutory) • Conclude that all animals will eventually die • Explain why different animals have a different life expectancy • Make predictions with reasons • Use test results to make further predictions and set up further comparative tests • Present a report of their findings through writing, display and presentation • Take measurements using a range of scientific equipment with increasing accuracy and precision Record more complex data and results using scientific diagrams, classification keys, tables, bar charts, line graphs and models

<ul style="list-style-type: none"> answer their question Use results to draw simple conclusions 	labeled diagrams, bar charts and tables. Use results to draw simple conclusions and suggest improvements	
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Knowledge, Skills and Understanding for topic area

- Identify and name the basic parts of the human digestive system
- Describe the function of the organs of the human digestive system
- Identify the different types of teeth in humans and their simple functions
- Compare the teeth of herbivores and carnivores
- Explain what a simple food chain shows
- Construct and interpret a variety of food chains, identifying producers, predators and prey

Knowledge, Skills and Understanding for Working Scientifically

- Take measurements using different equipment and units of measure and record what they have found in a range of ways
- Explain their findings in different ways (display, presentation, writing)
- Make a prediction based on something they have found out and apply science knowledge for further investigating.
- Make accurate measurements using standard units
- Plan and carry out a fair test
- Record and present what they have found using scientific language, drawings, labeled diagrams, bar charts and tables.
- Use results to draw simple conclusions and suggest improvements

Challenge

- Can they classify living things and non-living things by a number of characteristics that they have thought of?
- Can they explain how people, weather and the environment can affect living things?
- Can they explain how certain living things depend on one another to survive?

Resources

- Reference books in topic boxes - secondary sources E.g. CD-ROMs, reference books providing information about food types and diets of animals
- Enlarged model of teeth/toothbrush to model brushing
- models of teeth or real teeth, small mirrors for examining teeth
- Dvd/video clips about teeth – dentist surgery
- toothpaste and toothbrushes
- collection of foods/food packets
- digestive system models/posters
- Digestive system exploration equipment – food colouring red and green, nude tights, mixing bowls, water, fork, wheatabix,
- Intestines box – handmade roll out to show ch intestines size real life.

Suggested Quality Texts

Non-fiction: Books in topic boxes and school library.

Body Science (Discovery Explore) by Miles Kelly

Fiction: The Magic School Bus – Inside the human body

Website/Apps

Tinybop App – The human body

Teeth

Link to digestive system parts:

http://kidshealth.org/kid/interactive/digestive_it.html

Extended Writing Opportunities

The story of how food changes to poo! The digestive system - highlight the use of scientific vocabulary.

Numeracy Skills

Graph work on who eats what type of food. Record results from investigations in tables and produce bar charts.

Wow starter/experience

Visitor from the local health centre – Jill Cannon Kensington Health centre manager/ student doctor to talk about digestion and healthy eating.
 Life Eating Bus visits school.

Cross Curricular Links/Enquiry time:

Art: Begin to show facial expressions and body language in their sketches as they eat different food types, E.g. sour food, sweet food, spicy food, food they don't like the taste of, food they eat? Use different materials and paint to create textures to make a healthy food plate collage. Make a model of a digestive system

ICT: Use Internet to research animals and food chains, then create food chains for animals in different countries.

Literacy: Adventure story: Imagine being shrunk and being swallowed by mistake. The story of the digestive system.

PE: Children will perform a dance working in groups, which will show the movement of food through the body.