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| **F:\Learning bugs\Foundation Subjects\Dolly the Fly - Science.jpgLyng Primary School Knowledge Organiser**  |
| **Topic:**  | **Science** **Animals-food and digestion** | Year 4 | Autumn |



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| **What Step On and Goldilocks words will I use?** |
| **Spelling** | **Definition** |
| Canine | pointed teeth near the front of the mouth of humans and of some animals |
| Carnivore | An animal that eats meat |
| Classification key | A system which divides things into groups or types |
| Decay | Gradually destroyed by a natural process |
| Digestion | Breaking down ingested food material |
| Enamel | The hard white substance that forms the outer part of a tooth |
| Excretion | The process of eliminating faeces, urine, or sweat from the body |
| Energy | The ability and strength to do physical things |
| Environment | All the circumstances, people, things, and events around them that influence their life |
| Food chain | A series of living things which are linked to each other because each thing feeds on the one next to it in the series |
| Food web | A combination of food chains that integrate to form a network |
| Habitat | The natural environment in which an animals or plant normally lives or grows |
| Herbivore | An animal that only eats plants |
| Incisors | The teeth at the front of your mouth which you use for biting into food |
| Life processes | There are seven processes that tell us that living things are alive |
| Microhabitat | A small part of the environment that supports a habitat, such as a fallen log in a forest |
| Molars | The large, flat teeth towards the back of your mouth that you use for chewing food |
| Nutrition | The process of taking food into the body and absorbing the nutrients in those foods |
| Oesophagus | The part of your body that carries the food from the throat to the stomach |
| Omnivore | Person or animal eats all kinds of food, including both meat and plants |
| Plague | A substance containing bacteria that forms on the surface of your teeth |
| Premolar | Two situated on each side of both jaws between the first molar and the canine |
| Saliva | The watery liquid that forms in your mouth and helps you to chew and digest food |
| Stomach | The organ inside your body where food is digested before it moves into the intestines |
| Organism | A living thing |
| Predator | An animal that kills and eats other animals |
| Prey | An animal hunted or captured by another for food |
| Primary consumer | An organism that feeds on producers. They are always herbivores. |
| Producer | Organisms that make their own food using energy from the Sun |
| Secondary consumer | Organisms that eat primary consumers for energy |
| Tertiary consumer | Tertiary consumers eat primary and secondary consumers as their main source of food |

**What should I already know?**

* The parts of the human body and what they do.
* All animals need water, air and food to survive.
* The different ways in which humans are healthy.
* Animals get nutrition from what they eat.
* Humans and some animals have skeletons and muscles for support, protection and movement.
* What carnivores, omnivores and herbivores are.
* Excretion is one of the seven living processes

**Food chain.**

“When we die, our bodies become the grass, and the antelope eat the grass, and so we are all connected in the great Circle of Life.” (Lion King).

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| **Enquiry Questions** |
| * How does the human digestive system function?
* What are the different types of teeth and their roles when eating?
* How can we properly care for our teeth?
* How do differences in teeth relate to an animals diet?
* How can we recognise producers, Predators and prey in a food chain?
* How can animal poo give us clues about digestion, teeth and diet?
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| **Investigate!** |
| * Match predators and their prey depending on their habitats
* Create food chains for different habitats and compare them. How do the producers, predators and prey compare?
* Compare animal populations and explain why some populations (e.g. insects) might be higher than others (e.g. wolves)
* Explore what happens when part of a food chain is removed.
* Create food webs.
* Explore how the changing environment is having an impact on feeding relationships and food chains/webs.
* Investigate the amount of sugar in drinks and learn how sugar leads to an increase in plaque and how this destroys tooth enamel.
* Compare the teeth of carnivores, omnivores and herbivores. What do you notice?
* Identify the parts of the digestive system and explain their functions
* Create a presentation to show how our food is digested.
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**What will I know by the end of the unit?**

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| What is the role of our teeth and how do we look after them? | * Teeth are used for cutting and chewing food.
* They start the digestive process which gives us the energy we need to live.
* Humans look after their teeth by brushing and flossing and ensuring that they do not eat foods high in sugar.
* Not looking after teeth can lead to an increase in plaque and tooth decay.
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| What are the different names and functions of human teeth? | * Canines are pointed for tearing and ripping food - these are usually used when chewing meat.
* Incisors are shovel shaped and help bite lumps out of and cutting food.
* Premolars and molars are flat, and they grind and crush food.
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| What is a food chain? | * A food chain is a simple way to show the direction in which energy moves from the producer to the various consumers to the top or tertiary consumer.
* The producer (a plant) gets its energy from the Sun.
* In this example, the producer is the wheat, which gets its energy from the Sun.
* The mouse eats the wheat and gets its energy from it. The mouse is the primary consumer.
* The mouse is then eaten by the owl, which is the secondary consumer. The owl gets its energy from the mouse. The owl is the predator and the mouse is the prey.
* The owl is then eaten by the wolf, which is the tertiary consumer. The wolf gets its energy from the owl.
* The arrows show the direction in which the energy travels.
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| What are food webs? | * A food web shows the direction in which energy travels when animals and producers (plants) are eaten by more than one thing.
* A food web shows multiple food chains where there are multiple feeding relationships.
* When part of the food chain is removed, this has an impact on the other parts of the food chain. The number of some species will increase, while the population of others will decrease.
* This can have a direct impact on the survival of the species.
* The population of tertiary consumers depends on healthy populations of producers, primary and secondary consumers.
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| 1. Here is a simple chain. | **S** | **E** |
| a) In the diagram, what do the arrows show? |  |  |
| b) What is the first item in a food chain called? |  |  |

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| **4. Look at the digestive system and label 6 body parts.** |
| **S**  | **E** |



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| 2. In the stomach, along with other parts of the body, you will find glands and enzymes. | **S** | **E** |
| What do glands do? | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| What do enzymes do? | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |



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| 3. What do these words mean? | **S** | **E** |
| a) Herbivore | **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** | **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |
| b) Omnivore | **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** | **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |
| c) Detritivore | **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** | **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |