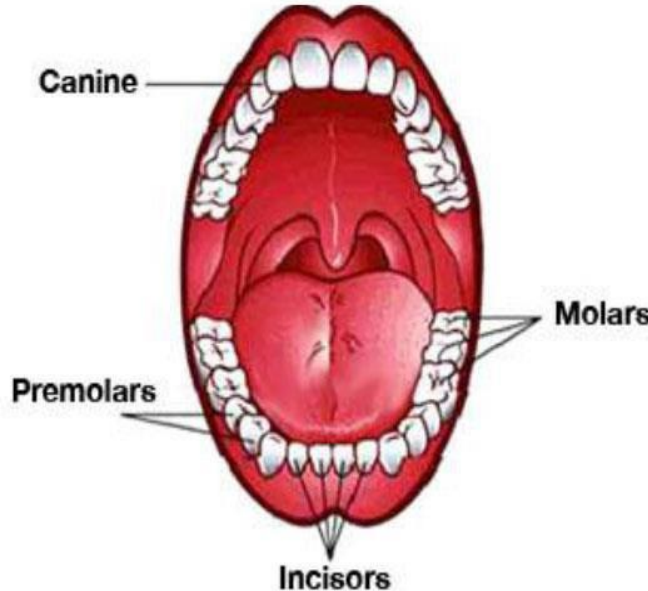



Colney Heath School ~ Science					
Topic: Animals including humans		Year: 4		Biology	
What should I already know?		Diagrams		Vocabulary	
The parts of the human body and what they do. All animals need water, air and food to survive. The different ways in which humans are healthy. Animals get nutrition from what they eat. Plants absorb energy from the Sun; this energy is consumed by herbivorous animals; and carnivorous animals eat other animals.				Digestion	Breaking down ingested food material.
				Excretion	The process of eliminating faeces, urine, or sweat from the body.
				Faeces	The solid waste substance that people and animals get rid of from their body by passing it through the anus.
				Oesophagus	The part of your body that carries the food from the throat to the stomach. Food is moved along the oesophagus (food pipe or gullet) by the muscles around it. They move in a worm-like motion called <b>peristalsis</b> and push the food towards the stomach.
				Herbivore	An animal that only eats plants.
Vocabulary		<h1>Food Chains</h1> 		Molar	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.			Carnivore	An animal that eats meat.
Premolar	Two situated on each side of both jaws between the first molar and the canine.			Omnivore	A person or animal that eats all kinds of food, including both meat and plants.
Plaque	A substance containing bacteria that forms on the surface of your teeth.			Saliva	The watery liquid that forms in your mouth and helps you to chew and digest food.
Stomach	The acids and enzymes in the stomach break down the food. The muscles surrounding it contract to help churn up the food.			Decay	Gradually destroyed by a natural process.
Small intestines	Also known as the ileum, this is where almost all of digestion and absorption of nutrients and minerals occurs.			Canines	Pointed teeth near the front of the mouth in humans and some other animals.
Large intestines	Also known as the colon, this is where the final stage of digestion occurs. The last of the water is absorbed, and the waste hardens and forms faeces (poo).				
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.				

## The Big Picture

### Biology

B1: Living things are special collections of matter that make copies of themselves, use energy and grow.

B2: Living things on Earth come in a huge variety of different forms that are all related because they all came from the same starting point 4.5 billion years ago.

B3: The different kinds of life, animals, plants and microorganisms, have evolved over millions of generations into different forms in order to survive in the environments in which they live.

## By the end of our project we will know that

Food passes through the body with the nutrients being extracted and the waste products excreted. This process is called digestion. The process of digestion involves breaking complex foodstuffs into simpler building blocks that can be absorbed by the body. The process of digestion begins with food being chewed in the mouth by the teeth and saliva added.

Humans have three types of teeth – incisors, canines and molars – and each perform different functions. Incisors slice food, canines tear food (especially meat) and that molars grind food. Food is squeezed down the oesophagus towards the stomach in a wave-like action called peristalsis. The stomach releases acid and enzymes to continue breaking down the food. The small intestine adds enzymes and then absorbs the nutrients. The large intestine absorbs water from the undigested food and creates faeces which are excreted through a muscle called the anus.

A food chain traces the path of energy through a habitat. Arrows in a food chain show the direction that energy is travelling through a habitat. All energy for a food chain initially comes from the Sun which is absorbed and turned into energy by plants which are called producers. Consumers take in energy by eating. An animal that is eaten by another is called prey, and an animal that eats other animals is called a predator.

## The Digestive System

- The smell of food triggers **saliva** to be produced.
- The **digestive** system begins with the mouth and teeth where food is **ingested** and chewed.
- **Saliva** is mixed with the food which helps to break it up.
- When the food is small enough to be swallowed, it is pushed down the **oesophagus** by **muscles** to the **stomach**.
- In the **stomach**, food is mixed further.
- The mixed food is then sent to the small **intestine** which **absorbs nutrients** from the food.
- Any leftover broken down food then moves on to the large **intestine**.
- The food minus the nutrients arrives in the rectum where **muscles** turn it into **faeces**. It is stored here until it is pushed out by the anus. This is called **excretion**.

