

Brentside Knowledge Organiser - Science

Year: 6

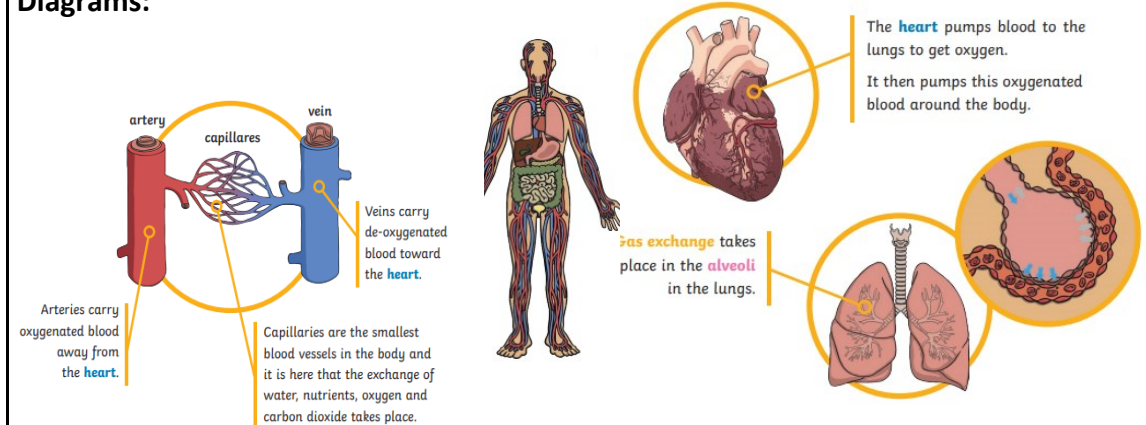
Topic: What would a journey through your body look like?

National curriculum: Animals Including Humans

What I should already know:

- ⇒ Humans and animals go through life stages including birth, growth, reproduction and death.
- ⇒ Humans go through puberty as they move beyond childhood into adulthood, and their bodies age as they get older. You should know the different changes that take place.
- ⇒ Humans and many other animals have skeletons, muscular systems and digestive systems.
- ⇒ Different foods contain different levels of carbohydrates, proteins, fats, fibre, vitamins and minerals. It is important to have the right balance.

Diagrams:



What I should know at the end of the topic:

Functions of body parts	Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood.
Function of nutrients	Describe the ways in which nutrients and water are transported within animals, including humans.
Heart	The heart pumps blood to the lungs to get oxygen. It then pumps this oxygenated blood around the body.
Lungs	The process of breathing.
Diet and exercise	Explore the work of scientists and scientific research about the relationship between diet and exercise.
Blood vessels (3 types)	Arteries carry oxygenated blood away from the heart. Veins carry de-oxygenated blood toward the heart. Capillaries are the smallest blood vessels in the body and it is here that the exchange of water, nutrients, oxygen and carbon dioxide takes place.

Investigate:

- ⇒ identify the main parts of the circulatory system and explain the main functions of the heart, lungs and blood vessels in the circulatory system.
- ⇒ Understand the processes of how water and nutrients are transported in the body.
- ⇒ State the beneficial impact of a healthy diet and exercise on the human body.

Vocabulary

Circulatory system	A system which includes the heart, veins, arteries and blood transporting substances around the body.
Heart	An organ which constantly pumps blood around the circulatory system.
Pulmonary	Relating to the lungs.
Alveoli	Tiny air sacs in the lungs where gas exchange takes place.
Gas exchange	The process by which oxygen enters the bloodstream from the lungs and the lungs receive carbon dioxide from the blood to breathe out.
Nutrients	Substances that animals need to stay alive and healthy.
Kidneys	Organs which filter blood and make urine from waste and excess water.
Liver	An organ which processes waste from the blood and produces bile.
Drug	An organ which processes waste from the blood and produces bile.
Alcohol	A drug produced from grains, fruits or vegetables when they are put through a process called fermentation.
Blood Vessels	A tubular structure carrying blood through the tissues and organs; a vein, artery, or capillary.
Diet	The kinds of food that a person, animal, or community habitually eats.
Exercise	Activity requiring physical effort, carried out to sustain or improve health and fitness.