Year 6 – In a Heart Beat- Animals including humans- Circulatory System LIVING THINGS SCIENCE SPRING 2

Prior Learning: children will already know about the skeletal, muscular and digestive system

Concept: Living things

In this unit we will learn all about the circulation system of blood around the body. We will watch the dissection of a real heart!

Working scientifically:

Draw conclusions (KS2) explain the results using knowledge

Gather and record results

1.TWAL to identify the components of blood and describe their functions

We will learn about the 4 main components of blood and their functions and make our own blood model using household ingredients! Draw and label your model. We will then learn the percentages of each component and represent it as pie chart.

sticky knowledge

Red blood cells transport oxygen, **white blood cells** protect against disease, **platelets** help repair cuts, **Plasma** carries these

2. TWAL to understand the structure and function of the human heart

We will learn about the structure of the heart, how it is made up of two halves, and how each half has an atrium and a ventricle. We will make a model heart and observe how the heart beats push the blood through and label a heart diagram.

Heart is made up of atrium and ventricles.

sticky knowledge

3.TWAL how the circulatory system works and the role of the heart

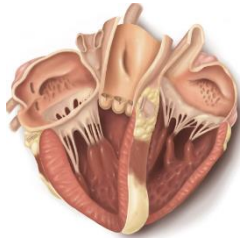
Can you piece a skeleton, digestive system and other parts of the body together? Where do you think the heart is? we will play the circulatory game to help us understand how this system works and the role of the heart. Imagine you are a blood cell. describe your journey around the body!

sticky knowledge

The heart pushes the blood around the body through arteries and then back to the heart through veins.

4.TWAL about the structure and function of a sheep heart

In this lesson you will dissect a sheep heart, Observe closely. Can you identify the ventricles and atria? Where are the valves? Draw a diagram and label.



5. TWAL to recognise the impact of exercise, diet and drugs on the way a human body functions

We will set up an investigation to find out how exercise effects the heart rate. Does the length of exercise affect the heart rate? What about intensity? We gather and record these results using scatter graphs. We will then learn about how diet and drugs can affect the heart.

6.TWAL to understand how nutrients and water are transported around the body

We will learn how diffusion plays a role in transporting vital nutrients to the cells in our body. We will conduct an experiment to see how diffusion works in gummy bears. Which components diffuse best?

Words we will know!