Animals Including Humans - Year 6: PROGRESSION MAP

National Curriculum Objectives

- identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood
- recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function
- describe the ways in which nutrients and water are transported within animals, including humans

Lesson Titles:

1. What is the human circulatory system?
2. How does blood get around the body\?
3. What isis in the blood?
4. How do we get water and nutrients?
5. How can we keep our heart healthy?
6. What are some blood disorders?

Common misconceptions:

- **The Heart is on the Left Side of Your Chest:** Actually, the heart is located in the centre of the chest, between the lungs. It's tipped slightly so that a part of it sticks out and taps against the left side of the chest, which is what makes it seem as though it is located there.
- **Blood is Blue Inside Your Body:** Blood is always red. It may look blue through your skin, but that's because of how light interacts with your skin and blood.
- **The Heart Does All the Work in Moving Blood Around:** While the heart is very important, it's not doing all the work. The blood vessels help, too! Arteries, veins, and capillaries have muscular walls that contract and relax to help pump blood.
- **You Don’t Need to Worry About Heart Health Until You’re Older**: It's never too early to start taking care of your heart. Eating a balanced diet, exercising regularly, and avoiding harmful substances like tobacco can help you keep your heart healthy from a young age.

Scientific enquiry:

Lesson 1 - Comparative testing
Lesson 2 - Pattern seeking
Lesson 3 - Identifying, classifying and grouping
Lesson 4 - Identifying, classifying and grouping
Lesson 5 - Fair testing
Lesson 6 - Researching using secondary sources

Prior learning:

- Animals, including humans (Year 3) - Discuss the function of a skeleton in humans and some animals.
- Animals, including humans (Year 4) - Describe the functions of the digestive system; identify the types and functions of human teeth.
- Animals, including humans (Year 5) - Understand changes in human development from birth to old age.

Future learning at KS3:

1. Further explore the role of the circulatory system and the composition of blood.
2. Understand the relationship between health and disease, including the impact of lifestyle choices on health.
3. Learn about the function of the immune system and how it responds to infections.
4. Explore the impact of drugs, alcohol, and smoking on the body and overall health.
5. Understand the importance of a balanced diet and regular exercise to maintain health.

Coherence:

English writing

- **Explanation Texts:** Students can write detailed explanations of how the circulatory system works, how nutrients and water are transported within the body, or how different lifestyle choices can impact health. They could also write instructions for a healthy lifestyle or guide on how to keep your heart healthy.
- **Information Texts:** Students can write their own informational booklets or leaflets about the circulatory system, healthy living, the impact of drugs on the body, or the importance of diet and exercise. This can include writing chapter summaries, creating glossaries of technical terms, or designing diagrams and captions.
- **Reading comprehension** - Reading books and resources related to health, diet, and the circulatory system can develop comprehension skills.

Maths:
Statistics: Interpreting data from blood pressure readings or heart rates before and after exercise; calculating averages.

Design and Technology:

- **Cooking and nutrition** - Understanding the principles of a healthy and varied diet.
- **Design, make, evaluate and technical knowledge** - Building the model pumping heart.

Art:
Creating sketchbooks - Sketching and labelling parts of the human body or circulatory system; creating representations of blood cells.

Book Recommendations:

- **The Great Body Book**: An Adventure Through the Insides of the Human Body" by Giuliano Ferri - Covers objectives related to identifying and naming the main parts of the human circulatory system and understanding the impact of lifestyle on bodily functions.
- **See Inside Your Body** by Katie Daynes - Supports learning objectives related to identifying and describing the functions of the heart, blood vessels, and blood.
- **The Circulatory System** by Rebecca Pettiford - Aligns with objectives related to understanding how nutrients and water are transported within humans.
- **Cells at Work!** by Akane Shimizu - This is aimed at 13 years and up, so it may not be appropriate for children, but it may appeal to teachers who follow Manga. It is a manga series that personifies cells in the human body, including red blood cells, white blood cells, and platelets, which can make learning about these components of the circulatory system more engaging and relatable.