The Inspire Curriculum

The Inspire Multi Academy Trust

(South West)

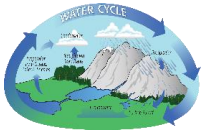
The Inspire Curriculum Cycle

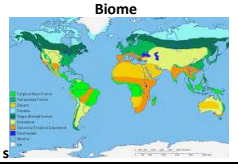
The Inspire Curriculum Rationale

Overview: Over the past 18 months, the Inspire Multi Academy Trust has been developing an intelligently sequenced, knowledge-rich curriculum, informed by the most up to date evidence informed research available. The curriculum materials have so far been written for History, Geography, Science and Art by Subject Leaders assisted by senior leaders and expert advice. The design has been led by Olivia Bartlett. The curriculum has been and will continue to be constantly refined based on feedback from Subject Leaders and Class Teachers. All materials are presented in a highly consistent approach, prioritising quality first teaching at every given opportunity. This should therefore mean the curriculum itself will act as continuing CPD for our teaching staff as the model and structure of curriculum lessons will allow for them to constantly develop and understand effective educational approaches as they teach.

Curriculum Booklets: Each area of study consists of up to six, carefully sequenced 'knowledge lessons', which can be contrasted with popular but ultimately less effective 'activity-based', 'enquiry- based', or 'discovery-based' lessons. The booklets have been developed by Subject Leaders and will detail both prior and future learning whilst also providing key vocabulary and concepts to be explored throughout the sequence. Each unit is centred around a high-quality text chosen by the Subject Leader and English Leader as they are "psychologically privileged…a very powerful way for students to engage with many ideas and also to remember them is for teachers to consciously harness the power of stories in the way lessons and lesson materials are organised." (Willingham, 2009)	**Knowledge Organisers:** The core content is meticulously curated and itemised to clarify the necessary (but not sufficient) knowledge to develop a sophisticated schema for each area of study. Over the course of the years, these knowledge organisers ensure that all pupils become 'culturally literate' (Hirsch, 1987) and have the opportunity to engage in 'powerful knowledge' (Young, 2013). A knowledge organiser acts as a planning, teaching and assessment tool. It provides complete clarity to leaders, teachers, pupils and parents about what is expected to be learnt and remembered by the end of the study and in the long term.
Pedagogy & Planning: PowerPoint or Spark presentations will be developed by Class Teachers using the lesson element documentation to ensure consistently good teaching all areas of the curriculum. Teachers will add specific notes to their presentations to demonstrate scaffolding/worked examples being used to support learners. The slides aid pupil memory by making effect of 'dual coding' (Paivio 1986; Mayer & Moreno, 2003). The benefits of receiving explanations through both the visual and auditory channel is well established in the research literature. Not to be confused with the discredited learning styles approach, dual coding can improve the absorption of new knowledge without increasing extraneous cognitive load.	**Retrieval Practice:** The benefits of regular retrieval practice with little or no support is one of the most robust findings in cognitive psychology. Low stakes quizzing is efficient, effective, and motivating for pupils whilst providing teachers with vital information about what pupils have misunderstood and/or what they may be struggling to remember. Retrieval Practice tasks will be implemented at the start of every lesson, utilising understanding of interleaving, and spacing to ensure content is retained for the long term. In addition to this, at the end of each half term, children will complete an interleaved quiz within the subjects of History, Geography and Science. We must also consider that there are of course limitations to retrieval practice and continue to refine and improve our day to day teaching.

The Inspire Long Term Curriculum Map

	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Nursery	I am Me	Day and Night	On the Farm	Build Me a Home	Under the Sea	Minibeasts Galore
Pre-School	Marvellous Me	Let's Celebrate!	When I Grow Up	Yum, Yum in my Tum	Home Sweet Home	Let's Go!
Reception	It Starts with Me	Into the Woods	The Land Down Under	Earth and Space	Splendid Safari!	Growing and Changing
Year 1	My School, My Community	History of Homes	To Plymouth & Beyond!	The Great Fire of London	Weather & The World	Terrific Travel
Year 2	What a Wonderful World	Significant Explorers	Desert v Dartmoor	Significant Inventors	Our World, Our Food.	Significant Artists
Year 3	Village, Towns & Cities	The Railways	Mountains, Volcanoes & Earthquakes	The Stone Age…	Weather, Water & Climate 	…To The Iron Age
Year 4	Natural Resources	Ancient Civilizations	Rivers	Ancient Egypt Part 1	Ancient Egypt Part 2	The Amazon

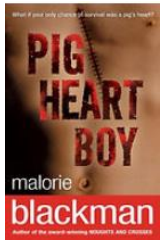
Year 5	**The Mediterranean** 	**Ancient Greece** 	**Biome** 	**Roman Britain** 	**Migration** 	**Anglo Saxons & Vikings**
Year 6	**Local Fieldwork** 	**Plymouth & The Blitz** 	**Energy & Sustainability** 	**The Benin Kingdom** 	**Globalisation** 	

YEAR SIX

TERM SIX

Animals including humans

LIVING THINGS & HABITATS | EVOLUTION & INHERITANCE | ELECTRICITY | LIGHT | ANIMALS INCLUDING HUMANS

Enquiry Question	**Why is it important to maintain a healthy circulatory system?**				
Scientific Enquiry	Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. Identifying scientific evidence that has been used to support or refute ideas or arguments. Reporting and presenting findings from enquiries, including conclusions, casual relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.				
NC Objectives	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				
Curriculum Coherence	**Prior Knowledge:** Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene. (Y2) Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat. (Y3)			**Future Learning:** The consequences of imbalances in the diet, including obesity, starvation and deficiency diseases. (KS3) The effects of recreational drugs (including substance misuse) on behaviour, health and life processes. (KS3) The structure and functions of the gas exchange system in humans, including adaptations to function. (KS3) The mechanism of breathing to move air in and out of the lungs. (KS3) The impact of exercise, asthma and smoking on the human gas exchange system. (KS3)	
	Substantive nutrients circulatory system exercise blood vessels capillary vein artery addiction drugs	**Disciplinary** record table findings diagrams stopwatch accurate precise conclusion evidence/line graph	**High Quality Text** 	**Misconceptions** • We just eat food for energy • All fat is bad for you and all dairy is good for you • Protein is good for you, so you can eat as much as you want • All drugs are bad for you.	**Assessments and Outcomes** Big Fat Quiz of the Term Retrieval Practice Written Task

YEAR SIX

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Knowledge Sequence	Lesson 1: What do blood vessels do? In this lesson, the children will start by reflecting on the previous unit 6.5 and recalling what the function of blood is. The children will learn that **blood** travels around our body through the network of **blood vessels**, **arteries**, **veins** and **capillaries**. The children will follow the journey blood takes through the body after it leaves the heart, through the arteries and onto the capillaries (and their function). They will explore the job of capillaries and how they cause us to bleed and bruise. They will learn of the transfer from capillary to vein and how veins transfer blood back to the heart. We have to look after or blood vessels by exercising and eating well otherwise fatty deposits can build in blood vessels making it harder to transport blood, this can lead to heart problems. The children will investigate blood clotting. Science for children 4 to 14 years | Developing Experts The children will record their results in a **table** and explain their **findings**.
	Lesson 2: How does the heart move blood around the body? Firstly, the children will recall what the function of blood vessels are. The children can feel their own chest and pulse on their wrist, this is the feeling of blood moving through our arteries as your heart pumps. The children will be able to explain what and where the heart is and its function. Blood has to continue to move around our body so that water, **nutrients** and **oxygen** can be transported to cells that need it and waste products like carbon dioxide are removed. The heart is an involuntary muscle and has four chambers, they will see an animation of how these chambers function. Science for children 4 to 14 years | Developing Experts The children will map the basic parts of the **circulatory system** out on the playground – **heart**, **lungs**, **blood vessels** and **muscles**. The children will move around the 'body' as though they were the blood. During a 'freeze frame' the children will explain where they are in the circulatory system and if they are blood cells carrying oxygenated or deoxygenated blood. The children will complete a **diagram** with **labels** in their books of how the heart moves blood around the body.
	Lesson 3: What affects your heart rate? (Assessment opportunity) Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs In this lesson, the children will begin by discussing what they need to do to make their heartbeat faster. The children will explore what 'resting heartrate' means and what we usually are doing when we have a resting heartrate. The children will record their own resting heartrate by counting how many beats they feel in their pulse for a minute using **stop watches**. The children will do this three times and take an average, to give them a more **accurate** result. They will design a selection of exercises that will raise their heartrate to complete for one minute. They will record their

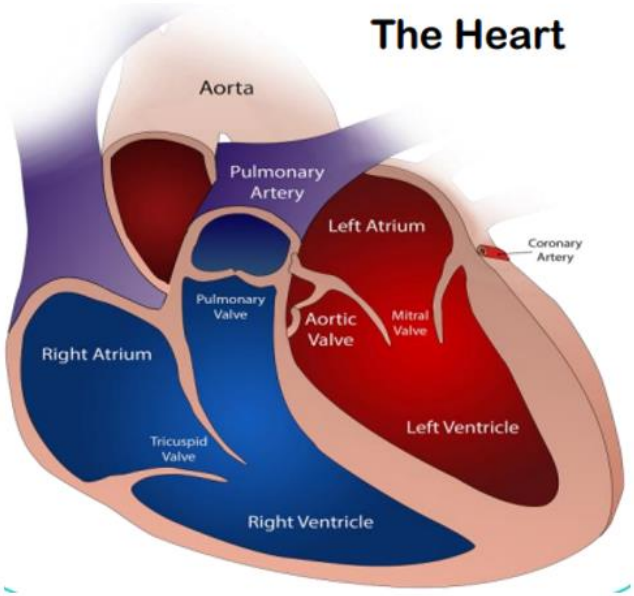
	heartrate after each exercise and create a **line graph** to show their results. They will write **conclusions** about which exercise raised their heartrate the most and based on their **evidence** suggest reasons for this.
	Lesson 4: What does a heart look like? In this lesson, the children will dissect a pig's/lamb's heart. They will work in groups of four and follow videos (68) Heart Dissection Primary Schools -Key Stage GCSE and A-Level Biology NEET Required Practical Skills - YouTube (68) What's inside a heart? Heart Dissection | We The Curious - YouTube to support the children identifying parts of the heart and where to make incisions into each atrium/ventricle. The risk assessment will be followed (located in the 6.6 Animals including Humans folder) and will study each part of the heart, using their prior knowledge and scientific language to discuss what they see.
	Lesson 5: What does a heart look like? In this lesson, the children will **record** and write up their **findings** from the previous lesson about dissecting a heart. The children will draw detailed **diagrams** of what they noticed (from photos taken during dissection) and **label** parts of the heart such as the left atrium, right atrium, left ventricle and right ventricle. The children will watch an accompanying video such as (68) What's inside a heart? Heart Dissection | We The Curious - YouTube to refresh their memories and use it to help label their diagrams with correct **vein**/**artery** names. The children will write a detailed description of the journey blood takes around the body and the structure of the two sides of the heart to demonstrate their understanding.
	Lesson 6: How can we keep our body healthy? In this lesson the children will start by thinking of how smoking damages your health. They will learn the affects smoking has on your lungs heart, teeth, skin and overall health. They will study in detail how smoking impacts the lungs and how this in turn has an affect on how much oxygen is transported around the body. The children will further study the long term health implications of smoking such as lung cancer. The children will look at how alcohol and drugs have an impact on the body short and long term and the health implications of this. The children will explain the scientific ideas they have learnt and create a poster/information leaflet about how to keep your body healthy, including what they have learnt from this unit to explain **scientific ideas.** Science for children 4 to 14 years | Developing Experts

Science 6.6 – Animals, including Humans

Enquiry Question: Why is it important to maintain a healthy circulatory system?

In this area of study, you will learn about blood vessels, how the heart moves blood around the body and about heart rate. You will learn the impact that diet, exercise, drugs and lifestyle can have on the body. You will study how these factors influence the way our body functions. You will look at the ways in which water and nutrients are transported around the body in animals and humans.

Key Vocabulary	
vein	Tubes forming part of the blood circulation system which carry blood towards the heart.
artery	Tubes forming part of the blood circulation system which carry blood away from the heart.
nutrients	Something from food that helps living organisms live and to grow.
circulatory system	The system which circulates bloody through the body
exercise	An activity requiring physical effort which improves your health and fitness
blood vessels	The tubes which blood flow around the body.
capillary	A very thin tube which carries blood around the body.

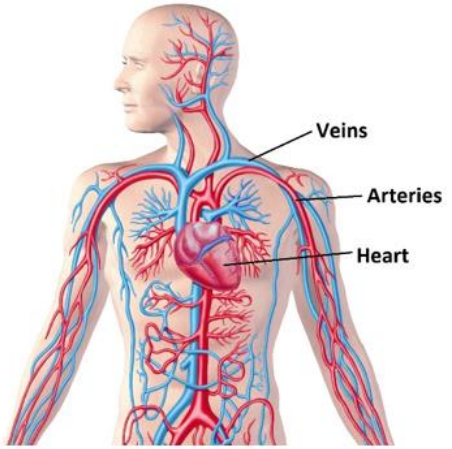


Blood vessels

- Arteries
- Veins
- Capillaries

Blood

- Plasma
- Red blood cells
- White blood cells
- Platelets



Exercise reduces muscle tension, improves resilience, builds brain power, promotes better sleep and improves your energy. It is great for your physical and mental health!

Science 6.6 – Animals, including humans

End of Term Big Quiz

1. Name two types of reflective material.	2. Who was Sir Isaac Newton?	3. What does blood transport around the body?
4. How does smoking impact the lungs?	5. How are shadows formed?	6. Describe a bird's lifecycle.
7. What is the difference between a heliocentric and geocentric solar system?	8. What are the four chambers of the heart called?	9. How can the brightness of a bulb be changed in a circuit?
10. Who was Carl Linnaeus?	11. What is the difference between sexual and asexual reproduction?	12. What can affect your heartrate?

This term (Worth 1 Point)	Term 1 - 4 (Worth 2 Points)	Last Year (Worth 3 Points)

Your mission is to score 10 points!