

Module 3 (Early KS2) ‘Health Detectives’							
Synopsis: In this module, pupils become ‘Health Detectives’ though a variety of enquiry based and cross-curricular challenges that develop their understanding of diet, nutrition, physical activity, bones and muscles. In the final challenge, the Health Detectives ‘take action’ when pupils research and create a 10 minute activity to trial and evaluate amongst their peers.							
Session 1	Session 2	Session 3	Session 4	Session 5	Session 6	Session 7	Session 8
Snack Attack (Nutrition)	The Power of Veg (Nutrition)	The Importance of Bones (Structure and function)	Bendy Bones (Calcium)	The Bone Hero (Vitamin D)	Mighty Muscles	Health Detectives Take Action! (1)	Health Detectives Take Action! (2)
Identify and Classify	Research	Comparative Tests	Research	Comparative Tests	Observation	Observation/Pattern Seeking/Research	

National Curriculum Objectives
<ul style="list-style-type: none"> Identify that animals, including humans, need the right types and amount of nutrition, and they cannot make their own food; they get their nutrition from what they eat. Know about the importance of a nutritious, balanced diet. Identify that humans and some other animals have skeletons and muscles for support, protection and movement
Working Scientifically
<p>Asking relevant questions and using different types of scientific enquiries to answer them.</p> <ul style="list-style-type: none"> I can ask questions about food groups, healthy snacks and the Eatwell Guide and use secondary sources (Change4Life) to answer them. (1,2) I can ask questions about bones and muscles and use observation and fair testing to answer these. (3-6) I can ask questions about physical activity in relation to my '10 Minute Activity' design, and use observation when noticing patterns in order to answer these. (7,8) <p>Setting up simple practical enquiries, comparative and fair tests.</p> <ul style="list-style-type: none"> I can set up a simple, fair test to find out which chocolate bar would make the strongest bone (3) I can set up a practical enquiry to find out the best way to protect my model skeleton from the sun, whilst ensuring they get some Vitamin D (5) <p>Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.</p> <ul style="list-style-type: none"> I can make careful observations when conducting the 'Chocolate Bar Bones', 'Protect your Skeleton' and 'Mighty Muscles' enquiries (3,5,6) I can accurately measure the mass needed to break the chocolate bars (3) I can accurately measure the time take for the UV beads to change colour during the 'Protect your Skeleton' enquiry (5) <p>Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions.</p> <ul style="list-style-type: none"> I can collect data on our favourite vegetable snacks and record this in a tally chart (2) I can collect data on the success of our '10 Minute Activity' using a questionnaire (7,8) <p>Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables.</p> <ul style="list-style-type: none"> I can use a simple bar chart to present data on our favourite vegetable snacks (2) <p>Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.</p> <ul style="list-style-type: none"> I can report my findings on the 'Chocolate Bar Bones' and 'Protect your Skelton' enquiries using written explanations (3,5) I can report my findings on the '10 Minute Activity' enquiry by presenting orally to the rest of the class (7,8) <p>Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.</p> <ul style="list-style-type: none"> I can use observations and evaluations from the '10 Minute Activity Challenge' to suggest improvements and raise further questions about my design (7,8) <p>Identifying differences, similarities or changes related to simple scientific ideas and processes.</p> <ul style="list-style-type: none"> I can talk about the similarities and differences between the bendy/non-bendy bones and relate this to my knowledge of the importance of calcium in the diet (4) <p>Using straightforward scientific evidence to answer questions or to support their findings.</p> <ul style="list-style-type: none"> I can use the Change4Life website to answer the question, 'What makes a healthy snack'? (1) I can explain why I have chosen the exercises in my ‘10 Minute Activity’ exercises, and how they relate to the Physical Activity recommendations for children my age (7,8)

Knowledge
<ul style="list-style-type: none"> I can identify the different sections of the Eatwell Guide, name the relevant food groups and talk about what a balanced diet should look like (1,2) I can give examples of healthy snacks (1,2) I can give examples of foods high in calcium and explain why calcium is important (4) I can recall the amount of physical activity someone my age should do each day, and can describe the changes that happen in your body when you exercise (7,8) I can describe the shape and appearance of bones, including in cross-section and can explain how bones are adapted to their function (3-6) I can explain the importance of Vitamin D for bone health, and understand that balance with sun safety is important (5) I can describe how muscles move in pairs to move the skeleton at joints (6)
Key Questions
<ul style="list-style-type: none"> How do you know a meal is healthy? How can we sort foods? How can we make sure our diet is balanced? What are bones for? What do bones look like? What do bones need to stay healthy? How do we move? How do muscles move? How much physical activity do we need to do to stay healthy? What happens to our body when we do exercise?
Vocabulary
<ul style="list-style-type: none"> Health, healthy, unhealthy Nutrients, nutrition Carbohydrates, protein, fats, dairy, vitamins, water, fibre Skeleton, bones, joints, calcium, Vitamin D, UV light Muscles, contract, relax Physical activity, exercise, heart, heart rate Mental health
Linked Texts
<ul style="list-style-type: none"> The Vegetables we Eat by Gail Gibbons Funnybones by Janet and Allan Ahlberg Who owns these bones? by Henri Cap, Raphael Martin, Renaud Vigourt The Astounding Broccoli Boy by Frank Cottrell Boyce

Module 4 (Late KS2) ‘Health Heroes’							
Synopsis: In this module, pupils learn about the human circulatory system through a series of cross-curricular, hands-on, enquiry-based sessions. Following this, they begin to think about all the factors that contribute to overall health, and what might influence our health behaviours. Pupils become, ‘Health Heroes’; leading campaigns on health issues within their school.							
Session 1	Session 2	Session 3	Session 4	Session 5	Session 6	Session 7	Session 8
Blood	The Circulatory System 1 (Circulation)	The Circulatory System 2 (The Heart)	Health Heroes (What does health mean?)	Health Heroes: Diet	Health Heroes: Exercise	The Campaign	The Campaign
<i>Identify and Classify</i>	<i>Identify and Classify</i>	<i>Comparative Tests</i>	<i>Research</i>	<i>Research</i>	<i>Research</i>	<i>Observation/Pattern Seeking/Research</i>	

National Curriculum Objectives
<ul style="list-style-type: none"> 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
Working Scientifically
<p>Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary</p> <ul style="list-style-type: none"> I can plan an enquiry to answer my own question about heart rate, controlling other variables. (3) <p>Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate</p> <ul style="list-style-type: none"> I can measure heart rate using a fingertip monitor, checking for accuracy and carrying out repeat readings (3) <p>Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.</p> <ul style="list-style-type: none"> I can record results from my enquiry into heart rate using tables and graphs (3) I can record data from the evaluation of my health campaign accurately, using tables and present these graphs (7,8) <p>Using test results to make predictions to set up further comparative and fair tests</p> <ul style="list-style-type: none"> I can use 'before' data from my campaign data collection to make predictions and set up my campaign (7,8) <p>Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations</p> <ul style="list-style-type: none"> I can report and present (in written form) my findings from an enquiry into my question on heart rate (3) I can report and present the data I collect from before and after my campaign, and present this to the class. I can present some explanations for these results. (7,8) <p>Identifying scientific evidence that has been used to support or refute ideas or arguments</p> <ul style="list-style-type: none"> I can use my knowledge of the circulatory system to support my ideas when making predications or offering explanations related to my heart rate enquiry (1,2,3) I can use my knowledge of how the circulatory system works to understand Sickle Cell Disease and Atherosclerosis (1,2)

Knowledge
<ul style="list-style-type: none"> I can identify and name the different components of blood and describe their function I can identify the heart, lungs and blood vessels I can describe how blood is pumped around the body, including the following key points: <ul style="list-style-type: none"> The heart pumps blood around the body. Oxygen is breathed into the lungs where it is absorbed by the blood. Oxygen is taken into the blood in the lungs; the heart pumps the blood through blood vessels to the rest of the body, which use oxygen and nutrients from the blood I can begin to describe the cardiac cycle, naming some parts of the heart I can explain the importance of a balanced diet, with reference to the Eatwell Guide I can discuss the different factors that make a person 'healthy' and identify some of the brriers to health behaviour change I can recall the physical activity guidance for a young person my age I can explain the effects of physical activity on the body I can describe how oxygen is transported by the blood
Key Questions
<ul style="list-style-type: none"> What is blood for? How is oxygen transported in the body? What are the different parts of blood? How does the heart work? How does the circulatory system change when we exercise? How does our heart work? What affects our health? What role does diet play in our health? What role does exercise play in our health? What stops people being healthy?
Vocabulary
<ul style="list-style-type: none"> Blood, red blood cells, white blood cells, platelets, plasma Oxygen, oxygenated, deoxygenated Immune system, clotting Heart, lungs, blood vessels, arteries, veins, valve, atrium, ventricle Nutrition, nutritionist, diet, carbohydrates, protein, fats, dairy, vitamins, water, fibre Physical activity, exercise, heart rate Health behaviours, mental health
Linked Texts
<ul style="list-style-type: none"> Pig Heart Boy by Malorie Blackman Illumanatomy by Ms. Kate Davies & Carnovsky The Fastest Boy in the World by Elizabeth Laird Professor Astro Cat's Human Body Odyssey by Dominic Walliman & Ben Newman

