**Year 6 Science Curriculum – Summer 2**

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| **Theme: Body Health** | | | | | | | | | |
| **Curriculum objectives** | | | **Vocabulary** | | | | | | **Links across the curriculum** |
| To recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function | | | **Balanced** | All parts in the correct amounts. | **Deficiency** | A lack of something essential | | | PSHE   * Healthy lifestyle choices   Maths   * Line graphs * Analysing data   PE   * Importance of exercise for body health   DT   * Cooking healthy foods – berry breakfast pancakes, cheese, tomato and basil bread   Maths   * Recording data and presenting   English   * Oracy | |
| **Recovery** | A return to a normal, healthy state | **Arteries** | Blood vessels that carry blood away from the heart | | |
| **Heart rate** | The number of times the heart beats per minute | **Malnutrition** | Lack of adequate nutrition | | |
| **Pulse** | The rhythmic bulge in an artery felt when blood is pumped through it | **Salt** | A mineral that our bodies need in small amounts to function properly | | |
| **Veins** | Blood vessels that carry blood back to the heart | **Secondary source** | A document (or other source) that shares data or information from an enquiry carried out by someone else | | |
| **Line graph** | A type of chart that displays data points connected by straight lines | **Tier 3 vocabulary** | [SNAP23\_Y6\_M6\_health\_ms.docx (live.com)](https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fstatic.collins.rhapsode.com%2FSnap_Science%2FTeaching_Science%2FYear_6%2FSNAP23_Y6_M6_health_ms.docx&wdOrigin=BROWSELINK) | | |
| **Prior knowledge:** *What specifically have pupils learned that is relevant to this unit that they are building upon?* | | | | | | | **Future knowledge:** *What specifically will pupils learn in the future that is relevant to this unit?* | | |
| Children have previously learnt:   * that we need the right types and amount of nutrition in order to be healthy, and that our skeletons and muscles allow us to move and provide support and protection (Year 3 Biology – Animals, including humans) * about the main parts of the human circulatory system, and their functions (Year 6 Biology – Animals including humans). | | | | | | | This prepares children for later learning:   * About the content and quantities of a healthy human diet and the consequences of dietary imbalances (Key Stage 3 Biology – Nutrition and digestion) * About the structure and functions of the human skeleton and muscles (Key Stage 3 – The skeletal and muscular systems) * About the effects of recreational drugs (Key Stage 3 – Health). | | |
| **Lesson Sequence** | | **Key Knowledge** | | | | | **Key Skills** | | |
| How do we make healthy food choices? | | * A balanced diet helps maintain or improve general health. * A healthy diet is low in sugar, salt and fat. * Proteins, which help our bodies grow and repair themselves. * Carbohydrates, which give us energy. * Vitamins and minerals, which help our bodies grow, function and repair. * Fats, which provide energy and help in building our bodies. * Fibre, which helps food to move easily through our digestive system. * Salt, which is a mineral that our bodies need in small amounts to function properly. * Sugar which is a type of carbohydrate. * A healthy diet is one that helps maintain or improve general health. A balanced diet contains foods from each food group, so it provides a wide range of nutrients. Some food groups should only be eaten in small amounts, such as sugar, salt and fat. * Eating too much salt is not good for you and can affect your heart. A lot of the salt we eat comes from packaged foods such as bread, breakfast cereals, meat products and ready meals. * Eating too much sugar can make you gain too much weight and can also cause tooth decay. Sugar is added to lots of foods. Sugary foods include foods naturally high in sugar such as honey, fruit juice and smoothies. * A small amount of fat is an essential part of a healthy, balanced diet. Fat is a source of essential fatty acids, which the body cannot make itself. Fat helps the body absorb vitamins A, D and E. However, too much fat can increase your risk of heart disease. | | | | | Working scientifically:   * Reporting and presenting findings from enquiries, including conclusions, causal relationships, and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.   Scientific enquiry type:   * Research using secondary sources. | | |
| What happens if we don’t eat a balanced diet? | | * An unhealthy diet can lead to malnutrition. * Malnutrition can result in unplanned weight loss, muscle loss or vitamin and mineral deficiencies. * James Lind was born in Edinburgh in 1716. In 1747, while serving as surgeon on HMS Salisbury, he carried out experiments to discover the cause of scurvy, the symptoms of which included loose teeth, bleeding gums and sore joints. Lind chose 12 men, all suffering from scurvy, and divided them into six pairs, giving each pair different additions to their basic diet. Those fed citrus fruits recovered from their scurvy. | | | | | Working scientifically:   * Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.   Scientific enquiry type:   * Research using secondary sources. | | |
| How does physical activity affect the heart rate? | | * The location of the heart. * What happens to your heart rate when you do physical activity - the heart is a muscle in your chest. It pumps blood around the body, taking oxygen, water and nutrients to where it is needed. * Pulse rate, also known as heart rate, is the number of times your heart beats in a minute. Each beat is a muscular movement which pumps the blood, keeping it moving. * Pulse is taken on an artery and not a vein, as the arteries are not so deep, and the contracting and relaxing of the heart – the heartbeat – is stronger there. * Resting pulse rate for under-12s is usually 80–120 bpm (beats per minute) and for adults it is usually 60–100 bpm. It should be made clear to children that these are normal ranges but there are of course exceptions. A resting pulse rate of below 50 for an adult athlete is considered perfectly healthy. * Children should do at least an average of 60 minutes per day of moderate-to-vigorous intensity physical activity, across the week. This should include activities which increase their heart rate. * The fitter you are, the faster your heart rate returns to normal after physical activity. This is known as your recovery rate. This is the difference between your heart rate straight after physical activity and then one minute later. Athletes have a fast recovery rate as their hearts are very strong. | | | | | Working scientifically:   * Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.   Scientific enquiry type:   * Pattern seeking. | | |
| How does smoking or vaping affect your health? | | * Smokers usually smoke tobacco through cigarettes, pipes or cigars. Tobacco smoke contains tar, nicotine, carbon monoxide and other toxic chemicals. Smoking can lead to a range of lung diseases. * Vaping is when you use a handheld electronic device to breathe a mist into your lungs. Vapes include e-cigarettes, vape pens or other electronic nicotine delivery systems. Vaping can cause breathing problems, organ damage, addiction, and other conditions. | | | | | Working scientifically:   * Identifying scientific evidence that has been used to support or refute ideas or arguments. | | |
| **Themes and links** | | | | | | | | | |
| **Themes )** | **Where these are covered:** | | | | | | | **Links across the science curriculum** | |
| **Observation over time** |  | | | | | | | |  |  | | --- | --- | | **EYFS** |  | | **1** | Identifying plants and their parts | | **2** | Growing healthy plants | | **3** | Flowering plants and plant growth | | **4** | Classification of plants and animals | | **5** | Human health | | **6** | Body health | | |
| **Research** | * Lesson 5 * Lesson 6 | | | | | | |
| **Pattern seeking** |  | | | | | | |
| **Comparative and fair testing** | * Lesson 1 * Lesson 2 * Lesson 3 * Lesson 4 | | | | | | |
| **Identifying, classifying and grouping** |  | | | | | | |  | |