

St Bernadette's Catholic Primary Voluntary Academy



Science Medium Term Planning - KS2 Lent Term Cycle B - Island Invaders and Settlers - Animals including humans

| MATERIALS | Learning Objective | Activity | Key Knowledge (By the end of the lesson) | | Vocabulary (Tier 3) |
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| | | | Substantive | Disciplinary | |
| Lesson 1 | L.O.9: To be able to identify and name the main parts of the human circulatory system , and describe the functions of the heart, blood vessels and blood. | Explore how the circulatory system works and identify the role blood has within this. Dramatise the process of the circulatory system. | <ul style="list-style-type: none"> Know the main parts of the circulatory system. | | circulatory system heart blood blood vessels pumps oxygen carbon dioxide lungs |
| Lesson 2 | L.O.9: To be able to identify and name the main parts of the human circulatory system, and describe the functions of the heart , blood vessels and blood. | Explore the structure and function of the human heart. Investigate and recreate heart rates for varying levels of exertion, giving explanations for observations, and compare human heartbeats with those of other animals. | <ul style="list-style-type: none"> Know what the heart does. Know that heart size and speed relates to age, fitness and activity and can be improved. | Enquiry Skill Focus <u>Observing and measuring</u> <ul style="list-style-type: none"> Accurately measure heart rates for varying levels of exertion. Enquiry Approach Focus <u>Pattern seeking</u> Identify patterns within the data. | heart blood blood vessels pumps chambers |
| Lesson 3 | L.O.9: To be able to identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood . | Explore the composition of blood and the role it has to play in the human body. Create sketches of blood vessels as seen under a powerful microscope and include a detailed description to accompany it. | <ul style="list-style-type: none"> Know the components of blood and their respective functions, noting the different blood groups. Know the three types of blood vessel: arteries, veins and capillaries. | Enquiry Approach Focus <u>Research</u> <ul style="list-style-type: none"> Identify scientific evidence that has been used to support or refute ideas or arguments. | blood blood vessels arteries veins capillaries |
| Lesson 4 | L.O.7: To be able to describe ways in which nutrients and water are transported within animals, including humans. | Explore how nutrients and water are transported throughout your body in your blood and the processes used to pass in and out of your blood through capillary walls. | <ul style="list-style-type: none"> Know that nutrients and water are transported around the body in the blood. | | circulatory system heart blood blood vessels oxygen carbon dioxide nutrients |

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| | | Investigate diffusion which links to absorption of nutrients in the body. | | | water |
| Lesson 5 | L.O.7: To be able to describe ways in which nutrients and water are transported within animals, including humans. | Explore how nutrients and water are transported throughout your body in your blood and the processes used to pass in and out of your blood through capillary walls. Investigate osmosis which links to absorption of water in the body. | <ul style="list-style-type: none"> Know that nutrients and water are transported around the body in the blood. | | circulatory system heart blood blood vessels oxygen carbon dioxide nutrients water |
| Lesson 6 | L.O.10: To be able to recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function. | Discuss the true impact (both visible and hidden) of diet, exercise and lifestyle on the human body. Research scientific evidence that supports or refutes this impact. | <ul style="list-style-type: none"> Know the impact of a healthy or unhealthy diet on the human body. Know the impact of exercise and lifestyle choices on the human body. | Enquiry Approach Focus <u>Research</u> <ul style="list-style-type: none"> Identify scientific evidence that has been used to support or refute ideas or arguments. | heart blood diet exercise lifestyle health |
| Lesson 7 | L.O.10: To be able to recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function. | Produce a creative TV advert that identifies exercise and diet as contributing factors to a healthy lifestyle. | <ul style="list-style-type: none"> Know the impact of a healthy or unhealthy diet on the human body. Know the impact of exercise and lifestyle choices on the human body. | | heart blood diet exercise lifestyle health |
| Lesson 8 | L.O.10: To be able to recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function. | Explore the truths and myths about the effects of drugs and alcohol on the human body. | <ul style="list-style-type: none"> Know how drugs impact on the way the human body functions. Know that certain drugs can be used for positive effect in the form of medicine. | Enquiry Approach Focus <u>Research</u> <ul style="list-style-type: none"> Identify scientific evidence that has been used to support or refute ideas or arguments. | addiction drugs medicine alcohol cigarettes stimulant depressant hallucinogen |
| Lesson 9 | L.O.10: To be able to recognise the impact of diet, | Create an artistic 'montage' advert that reflects the effects of drugs and alcohol on the | <ul style="list-style-type: none"> Know how drugs impact on the way the human body functions. Know that certain drugs | | addiction drugs medicine alcohol |

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| | exercise, drugs and lifestyle on the way their bodies function. | human body in a creative and informative manner. | can be used for positive effect in the form of medicine. | | cigarettes stimulant depressant hallucinogen |
| Lesson 10 | End of Unit Assessment | | | | |