

Lessons per week: 3 Group(s): Tomlin Fuller

Students will show achievement by knowing the various parts of the human body, how they work and how to keep healthy. There are opportunities to use different equipment whilst carrying out investigations which links to independence. The power point presentations will link to communication as they share their ideas. The whole unit ties directly into health and wellbeing. Opportunities to learn about careers include how scientists develop ideas which lead to new products or improve ways of working and will include many jobs in the health care sector.

| | Topic | Learning Intentions | Tasks | Assessed IIs |
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| W1 | Cells and microscopes | <p>Link Steps all levels</p> <ul style="list-style-type: none"> To know what all living things do MRS GREN To know that cells are the basic unit of living organisms To be able to label animal cells To be able to observe and record cell structure using a microscope To know about scientific discoveries: the microscope <p>Link Steps Level 9 Plus</p> <ul style="list-style-type: none"> To be able to list the functions of more complex parts of animal cells | <ul style="list-style-type: none"> MRS GREN worksheet Label plant and animal cells Create a jelly animal cell model Label the parts and functions of a microscope Record cell structures using the bio-viewers Science literacy: history of the microscope | <p>Student should be able to</p> <ul style="list-style-type: none"> List what all living things do MRS GREN Explain that cells are the basic unit of living organisms Label animal cells Label the parts of a microscope Observe and record cell structure using a microscope Explain something of how scientific discoveries led to the microscope and subsequent developments in science that followed <p>Some students should be able to</p> <ul style="list-style-type: none"> List the function of parts of the animal cells |
| W2 | | <p>Link Steps all levels</p> <ul style="list-style-type: none"> To know the organisation of multicellular organisms is: cells | <ul style="list-style-type: none"> Identifying organs from pictures Dissection demonstration of a lambs liver | <p>All students should be able to</p> <ul style="list-style-type: none"> List the organisation of multicellular organisms is: cells to tissue to organs to systems to organisms |

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| | | <p>to tissue to organs to systems to organisms</p> <ul style="list-style-type: none"> • To be able to identify at least 5 organs and know where they are in the body • To be able to list the function of these organs • To be able to list at least three organ systems • To know what organ donation is and why it is important | <ul style="list-style-type: none"> • Creating a power point or clicker 7 to show functions of organs • You tube clips and debate about organ donation | <ul style="list-style-type: none"> • Describe the function and location of at least 5 organs • Name three organ systems • Suggest why organ donation is important and necessary |
| W3 | Skeleton and Joints | <p>Link Steps all levels</p> <ul style="list-style-type: none"> • To know that humans have skeletons for support, protection and movement. • To be able to identify and locate a range of bones in the skeleton and their function • To know ways to protect skeleton • To know what joints are <p>Link Steps Level 9 plus</p> <ul style="list-style-type: none"> • To understand the nutrients bones need and where these nutrients come from • To describe what happens when we are deficient in these nutrients • To be able to use knowledge of the skeleton to compare our skeleton with that of other animals | <ul style="list-style-type: none"> • Post it notes on real skeleton to recall what bones they know already • Label parts of a skeleton • Create a model of a skeleton • Identify parts of the body from X Rays • Poster to show how to look after our skeleton • Demonstration of calcium deficiency using chicken bones • Create a model of joints • More able to use knowledge to compare different animal skeletons as a scientific journal report | <p>All students should be able to</p> <ul style="list-style-type: none"> • Explain that humans have skeletons for support, protection and movement. • Identify a range of bones in the skeleton and their function • Show ways to protect their skeleton • Explain what joints are using a model <p>Some students may be able to</p> <ul style="list-style-type: none"> • List the nutrients skeletons need and where these nutrients come from • Explain what happens when we are deficient in nutrients • Use knowledge of the skeleton to compare our skeleton with that of other animals |

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| W4 | Respiratory System | <p>All Link levels</p> <ul style="list-style-type: none"> To recall the parts of the respiratory system To be able to describe the functions of the lungs To know we breath out carbon dioxide and breath in oxygen To know we get energy from respiration and breathing is part of respiration To know how to keep the lungs healthy <p>Link Steps Level 9 plus</p> <ul style="list-style-type: none"> To consider the effect of smoking and pollution on the lungs To understand how respiration is needed to produce energy in all cells To be able to explain the difference in breathing and respiration To introduce symbol and word equations for respiration | <ul style="list-style-type: none"> Labelling systems and producing models of the respiratory system Investigation using lime water to show that we breath out carbon dioxide Leaflet to show how we keep our lungs healthy Interactive T-shirt and computer simulations | <p>All students should be able to</p> <ul style="list-style-type: none"> Recall the function of the lung, in the respiratory system Explain that we breath out carbon dioxide and breath in oxygen Explain what respiration is Suggest ways to keep lungs healthy <p>Some students may be able to</p> <ul style="list-style-type: none"> Describe the effect of smoking and pollution on specific parts of the lungs Explain how respiration is needed to produce energy Explain the difference in breathing and respiration Write and explain the symbol equation for respiration |
| W5 | Circulatory System | <p>Link Steps all Levels</p> <ul style="list-style-type: none"> To be able to describe the function of the circulatory system To be able to describe the function of heart and blood To label a simple diagram of the heart To be able to measure pulse and blood pressure To investigate what happens to our heart and pulse rate when we exercise To know ways to keep the circulatory system healthy | <ul style="list-style-type: none"> Label diagram of the circulatory system Model the circulatory system Measure blood pressure and pulse Investigating heart rate after exercise | <p>All students should be able to</p> <ul style="list-style-type: none"> Describe the function of the circulatory system Label the circulatory system Describe the functions of heart and blood Measure blood pressure and pulse Investigate what happens to heart rate when we exercise <p>Some students should be able to</p> <ul style="list-style-type: none"> Explain this in terms of respiration Plan the investigation independently |

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| | | <p>Link Steps Level 9 plus</p> <ul style="list-style-type: none"> To be able to explain why heart rate increases in terms of respirations To be able to plan the investigation | | |
| W6 | Digestive system | <p>Link Steps all Levels</p> <ul style="list-style-type: none"> To be able to describe the simple functions of the basic part of the digestive system including the role of teeth Write accurate observations To know how to keep the digestive system healthy <p>Link Steps Level 9 plus</p> <ul style="list-style-type: none"> Evaluate scientific models | <ul style="list-style-type: none"> Poster and diagram to identify the main parts of the digestive system Investigations into the role of acids and bile in the digestive system and recording their observations Creating a model of the digestive system Evaluating this model Write a story about the journey of a piece of toast passing through the digestive system Creating a leaflet to explain how to keep the digestive system healthy | <p>All students should be able to</p> <ul style="list-style-type: none"> Describe the simple functions of the basic part of the digestive system Create a piece of science literacy about the journey of toast through the digestive system Write accurate observations Explain how to keep the digestive system healthy <p>Some students may be able to</p> <ul style="list-style-type: none"> Evaluate their scientific models |