

Science (Year 8)

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Term 1				Term 2				Term 3						
Strands	Live & Kicking: Human Organs Systems		Pyrotechnics: Periodic Table & Chemical Reactions		Strands	Species at War: Competition, Reproduction and Survival		Catastrophe: The Rock Cycle		Strands	nVIZ: Energy & Motion		Studio Magic: Light & Sound	
I Can Statements	I can understand diets, digestion and absorption of food.				I Can Statements	I can explain how plants photosynthesise and reproduce		I understand how different rocks types are formed and what their properties are.		I Can Statements	I can understand energy transfers and efficiency		I can understand the properties and uses of sound waves	
I Can Statements	I can explain breathing & respiration.				I Can Statements	I can understand populations in food chains, webs and pyramids		I understand how different rocks are formed and how they are converted into different rock types		I Can Statements	I can understand electricity generation from non-renewable and renewable energy sources		I can understand the properties and effects of light waves	
I Can Statements	I can make scientific observations, draw conclusions and suggest improvements to experiments				I Can Statements	I can explain how diseases are transmitted and how we can combat them.		I can make scientific observations, draw conclusions and suggest improvements to experiments		I Can Statements	I can make scientific observations, draw conclusions and suggest improvements to experiments		I can make scientific observations, draw conclusions and suggest improvements to experiments	
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Mastery Statements	Emerging	Developing	Mastering		Mastery Statements	Emerging	Developing	Mastering		Mastery Statements	Emerging	Developing	Mastering	
Mastery Statements	I can understand diets, digestion and absorption of food.	I can describe balanced and unbalanced diets and their effects on the body	I can explain how food is digested and absorbed.	I can explain the symptoms of digestion disorders.	Mastery Statements	I can explain how plants photosynthesise and reproduce	I can identify different parts of a plant.	I can describe the processes of photosynthesis, pollination and fertilisation.	I can explain how a plant is adapted to enable photosynthesis, pollination and fertilisation	Mastery Statements	I can understand energy transfers and efficiency	I can state the useful and wasteful energy transfers in appliances	I can calculate the efficiency of some appliances	I can explain how energy transfers relate to the law of conservation of energy.
Mastery Statements	I can explain breathing & respiration.	I can describe the structure and function of the breathing system	I can explain how gases are exchanged in the alveoli.	I can explain when aerobic and anaerobic respiration take place and compare them.	Mastery Statements	I can understand populations in food chains, webs and pyramids	I can construct different food chains	I can use food webs to explain feeding relationships.	I can analyse pyramids of number and biomass	Mastery Statements	I can understand electricity generation from non-renewable and renewable energy sources	I can explain how fossil fuels produce electricity	I can compare and describe the advantages of disadvantages of some renewable energy sources	I can suggest how electricity generation can be sustainable for the future
Mastery Statements	I can make scientific observations, draw conclusions and suggest improvements to experiments.	I can make scientific observations and measurements.	I can analyse whether evidence supports a conclusion and suggest alternative conclusions.	I can evaluate how accurate and repeatable measurements are and suggest improvements to an experiment.	Mastery Statements	I can explain how diseases are transmitted and how we can combat them.	I can describe different types of disease and how they spread.	I can explain how the immune system combats pathogens.	I can evaluate when vaccines and antibiotics are suitable for combating diseases and when they are not.	Mastery Statements	I can make scientific observations, draw conclusions and suggest improvements to experiments.	I can make scientific observations and measurements.	I can analyse whether evidence supports a conclusion and suggest alternative conclusions.	I can evaluate how accurate and repeatable measurements are and suggest improvements to an experiment.
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Mastery Statements	I understand how different rocks types are formed and what their properties are.	I can describe properties of sedimentary, igneous and metamorphic rocks.	I can explain how sedimentary, igneous and metamorphic rocks are formed.	I can link the properties of igneous, sedimentary and metamorphic rocks with their structures.	Mastery Statements	I understand how different rocks types are formed and how they are converted into different rock types	I can describe three different types of weathering.	I can explain what happens during the rock cycle.	I can explain how processes in the rock cycle cause rocks to have different structures and properties.	Mastery Statements	I can understand the properties and effects of light waves	I can explain the difference between secular reflection and diffuse reflection	I can explain refraction in different materials and its uses	I can deduce the effects of coloured filters and lights on the appearance of coloured objects
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