

Year 5 Science						
	The Human Life Cycle (Animals Including Humans)	Forces	Changes of Materials	Properties of Materials	Earth and Space	Studying Living Things
Emerging	<p>Name the key stages of a mammal's life cycle</p> <p>Define gestation</p> <p>Recall all children grow</p> <p>Suggest at least one change during puberty</p> <p>Recognise some key signs of ageing in humans</p>	<p>Investigate the relationship between mass and gravity with support</p> <p>Recall how air resistance acts on objects</p> <p>Annotate a diagram of forces acting</p> <p>Identify the similarities or differences between air and water resistance</p> <p>State how friction acts on object</p> <p>Identify examples of simple mechanisms</p>	<p>Define "dissolve"</p> <p>Describe how evaporation can be used to get the salt back from salty water</p> <p>Identify methods for reversing a physical change</p> <p>Name some irreversible changes</p> <p>Identify rusting as an irreversible change</p> <p>Sort materials according to their properties</p> <p>Identify materials that are thermal conductors</p> <p>Identify the different separation methods</p>		<p>Recall the order of the planets from the Sun</p> <p>State how Earth moves in space</p> <p>Recall the movement of the Moon</p> <p>State key characteristics of a planet</p>	<p>Recall what plants need to grow strong and healthy</p> <p>State the three types of mammals</p> <p>Recall key stages from the life cycle of an insect or amphibian</p> <p>Recall key facts about the structure of an egg</p> <p>State the importance of studying living organisms</p>
Developing	<p>Identify developments during each stage of a life cycle with support</p> <p>Describe one difference between the gestation periods of mammals</p> <p>Describe some ways that the growth of children is measured</p> <p>Identify changes that take place during puberty to boys and girls</p> <p>Recognise that humans age differently depending on their lifestyle</p>	<p>Investigate the relationship between mass and gravity with support</p> <p>Draw a diagram of the forces acting on a parachute</p> <p>Identify the similarities or differences between air and water resistance</p> <p>Describe how friction acts on object</p> <p>Describe examples of simple mechanisms</p>	<p>Suggest a method to recover the water from a saltwater solution</p> <p>Describe how the method used to reverse a physical change works</p> <p>Use observations to identify an irreversible change has taken place</p> <p>Plan an experiment to investigate rusting, with support</p> <p>Conduct a fair and comparative test to group materials according to their properties</p> <p>Identify materials that are thermal conductors with explanation</p> <p>Investigate and identify which materials are soluble and insoluble in water</p> <p>Describe the processes of different separation methods, with support</p>		<p>Describe key characteristics of a planet</p> <p>State how the Sun transitions across the sky</p> <p>Identify similarities and differences of the planets</p>	<p>Describe how plants can reproduce</p> <p>Describe what a life cycle is</p> <p>Describe the life cycle of an insect or amphibian</p> <p>Describe the structure of an egg</p> <p>Identify important facts about studying living organisms</p>
Secure	<p>Identify developments during each stage of a life cycle, independently</p> <p>Describe some differences between the gestation periods of mammals</p> <p>Begin to link data with scientific thinking on growth</p> <p>Identify changes that take place during puberty to boys and girls</p> <p>Recognise that humans age differently depending on their lifestyle</p>	<p>Investigate the relationship between mass and gravity</p> <p>Design and test parachutes</p> <p>Draw an accurate diagram of the forces acting on a parachute and explain their purpose</p> <p>Identify the similarities and differences between air and water resistance</p> <p>Describe how friction acts on object with examples</p> <p>Explain how gears work and their purpose</p>	<p>Suggest a method to recover the water from a salt water solution and explain why this method works</p> <p>Evaluate the strengths and weaknesses of the recovery method</p> <p>Use observations to describe how you can tell an irreversible change has taken place</p> <p>Plan an experiment to investigate rusting and include how to make it a fair test</p> <p>Design a method to conduct a fair and comparative test to group materials according to their properties</p> <p>Conduct a fair and comparative test to test the thermal conductive properties of materials</p> <p>Investigate and identify which materials are soluble and insoluble in water, with explanation</p> <p>Describe the processes of different separation methods, with support</p>		<p>Describe the Sun, Earth, moon as spheres</p> <p>Describe how night and day happen</p> <p>Describe the movement of the Moon relative to the Earth</p> <p>Annotate a representation of the planets and space</p>	<p>Describe how plants can reproduce</p> <p>Articulate what a life cycle is giving examples</p> <p>Describe the life cycle of an amphibian and insect</p> <p>Describe the differences between a mammal and a bird or reptile life cycle</p> <p>Report about 2 key members of the scientific community</p>
Mastery	<p>Compare the human life cycle with another mammal</p> <p>Explore reasons behind extreme gestation periods</p> <p>Link data with scientific thinking on growth</p> <p>Compare the changes experienced by boys and girls</p> <p>Suggest ways to stay healthy in old age with explanation</p>	<p>Investigate the relationship between mass and gravity independently</p> <p>Design and test parachutes, using averages to get more accurate results</p> <p>Draw an accurate diagram of the forces acting on a parachute and explain their purpose</p> <p>Identify the similarities and differences between air and water resistance and explain</p> <p>Describe ways of changing the size of a frictional force</p>	<p>Apply the results of an evaporation experiment to explain which mystery liquid is a solution</p> <p>Evaluate the strengths and weaknesses of the recovery method chosen and suggest improvements</p> <p>Explain why a change is irreversible and identify new products have been made</p> <p>Explain why rusting is an irreversible change, why it is a problem and how to prevent it</p> <p>Apply results from a fair and comparative test to explain how the properties of materials enable them to be suitable for a specific task</p> <p>Apply results from a fair and comparative test to explain how the thermal conductive properties of materials enable them to be suitable for a specific task</p> <p>Investigate and identify which materials are soluble and insoluble in water, with explanation</p> <p>Explain the most effective separation method for various materials</p>		<p>Describe the Sun, Earth, moon and other celestial bodies as spheres</p> <p>Compare how night and day happen</p> <p>Explain that Moon's orbit</p> <p>Create a representation of their knowledge of the planets and space</p>	<p>Compare methods of how plants can reproduce</p> <p>Compare at least two mammals' life cycles</p> <p>Compare the process of metamorphosis in amphibians and insects</p> <p>Describe the similarities and differences between a mammal and a bird or reptile life cycle</p> <p>Explain the importance of animal conservation, giving research examples</p>

I'm working towards:	Mastery	Secure	Developing	Emerging
-----------------------------	---------	--------	------------	----------



	The Human Life Cycle	Forces	Changes and Properties of Materials	Earth and Space	Studying Living Things
Mastery					
Secure					
Developing					
Emerging					

Term	Knowledge and Working Scientifically
Autumn term	Two areas that I need to work on: • •
Spring term	Two areas that I need to work on: • •
Summer term	Two areas that I need to work on: • •