

Living World

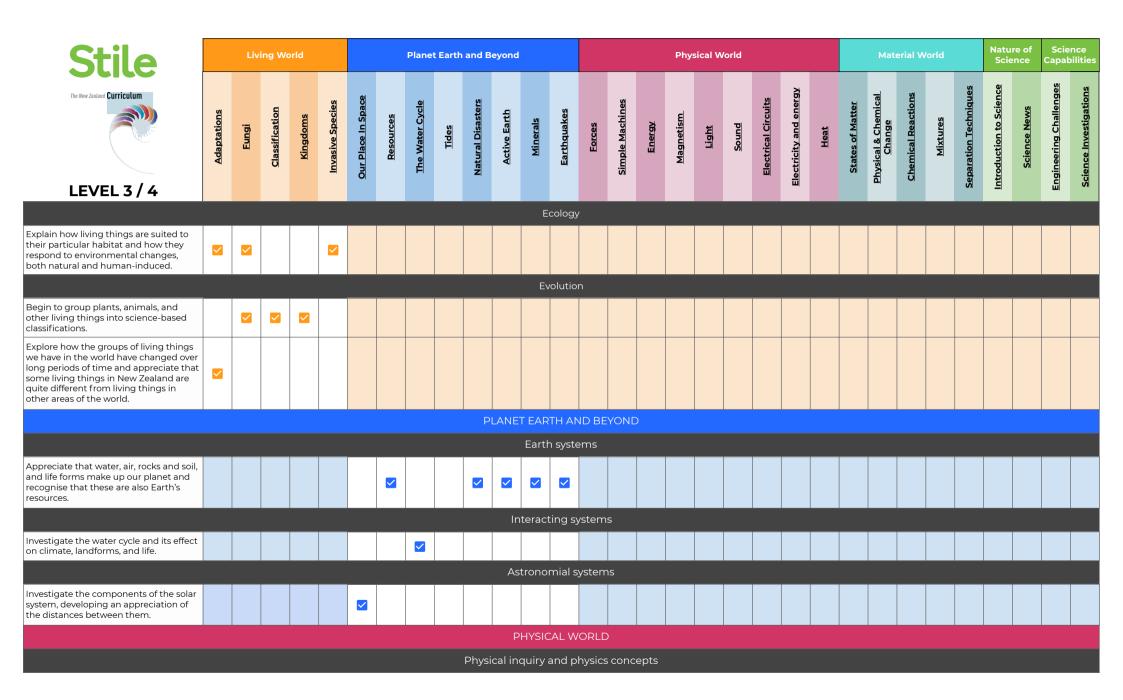
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The New Zealand Curriculum	Adaptations	Fungi	Classification	Kingdoms	Invasive Species	Our Place In Space	Resources	The Water Cycle	Tides	Natural Disasters	Active Earth	<u>Minerals</u>	<u>Earthquakes</u>	Forces	Simple Machines	Energy	Magnetism	Light	Sound	Electrical Circuits	Electricity and energy	Heat	States of Matter	Physical & Chemical Change	Chemical Reactions	Mixtures	Separation Techniques	Introduction to Science	Science News	Engineering Challenges	Science Investigations
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											Under	standi	ng abo	out sci	ience																
Appreciate that science is a way of explaining the world and that science knowledge changes over time.	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	✓	<u>~</u>	<u>~</u>	<u> </u>	~	~	~	<u> </u>	~	~	<u>~</u>	<u>~</u>	<u>~</u>		<u>~</u>	<u>~</u>		<u> </u>	<u>~</u>	<u>~</u>	<u>~</u>	
Identify ways in which scientists work together and provide evidence to support their ideas.	<u>~</u>	<u>~</u>	~	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	~	<u>~</u>	~	~	~	~	~	>	~	<u>~</u>	~	<u>~</u>	<u>~</u>	<u>~</u>	>	<u>~</u>	~	~
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Build on prior experiences, working together to share and examine their own and others' knowledge.	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	~	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	~	<u>~</u>	<u>~</u>	~	~	Y	~	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u> </u>	✓	<u>~</u>	~	~
Ask questions, find evidence, explore simple models, and carry out appropriate investigations to develop simple explanations.	✓	<u>~</u>	<u>~</u>	<u> </u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	✓	✓	~	✓	<u>~</u>	>	✓	~	~	\	>	~	<u>~</u>	~	~	<u> </u>	~		✓	~
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Begin to use a range of scientific symbols, conventions, and vocabulary.	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u> </u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u> </u>	<u> </u>	<u> </u>	<u>~</u>	<u>~</u>	<u> </u>	<u>~</u>	<u>~</u>	<u>~</u>	<u> </u>	<u>~</u>	<u> </u>	<u> </u>	<u>~</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u>~</u>	
Engage with a range of science texts and begin to question the purposes for which these texts are constructed.	<u>~</u>	<u>~</u>	~	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u> </u>	<u>~</u>	~	<u>~</u>	<u>~</u>	<u>~</u>	~	<u>~</u>	<u>~</u>	V	✓	~		<u>~</u>	<u> </u>	<u> </u>	>	<u>~</u>	<u>~</u>	
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Use their growing science knowledge when considering issues of concern to them.	<u>~</u>	<u>~</u>	~	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u> </u>	~	<u>~</u>	<u>~</u>	<u>~</u>		<u>~</u>	<u>~</u>	<u> </u>	✓			<u>~</u>	<u>~</u>	<u> </u>	~	~	~	~
Explore various aspects of an issue and make decisions about possible actions.	<u>~</u>	<u>~</u>			<u>~</u>		<u>~</u>			<u>~</u>	<u>~</u>		<u>~</u>								<u> </u>		<u>~</u>	<u>~</u>						~	
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Recognise that there are life processes common to all living things and that these occur in different ways.	<u>~</u>	<u>~</u>																													

Planet Earth and Beyond

Physical World

Nature of Science

Science Capabilities



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The New Zealand Curriculum	Adaptations	Fungi	Classification	Kingdoms	Invasive Species	Our Place In Space	Resources	The Water Cycle	Tides	Natural Disasters	Active Earth	Minerals	<u>Earthquakes</u>	Forces	Simple Machines	Energy	Magnetism	Light	<u>PunoS</u>	Electrical Circuits	Electricity and energy	Heat	States of Matter	Physical & Chemical Change	Chemical Reactions	Mixtures	Separation Techniques	Introduction to Science	Science News	Engineering Challenges	Science Investigations
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Explore, describe, and represent patterns and trends for everyday examples of physical phenomena, such as movement, forces, electricity and magnetism, light, sound, waves, and heat. For example, identify and describe the effect of forces (contact and noncontact) on the motion of objects; identify and describe everyday examples of sources of energy, forms of energy, and energy transformations.														∨	>	~	✓	~	>	✓	>	>									
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Group materials in different ways, based on the observations and measurements of the characteristic chemical and physical properties of a range of different materials.																							~	~		~	~				
Compare chemical and physical changes.																								<u>~</u>	<u>~</u>						
											Ch	emist	ry and	socie	ety																
Relate the observed, characteristic chemical and physical properties of a range of different materials to technological uses and natural processes.																							<u> </u>	~	~	>	✓				



Nature of Science Capabilities

Physical World

Planet Earth and Beyond

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Understand that scientists' investigations are informed by current scientific theories and aim to collect evidence that will be interpreted through processes of logical argument.		<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	~	<u>~</u>	<u>~</u>	✓	<u>~</u>	<u>~</u>	✓	<u>~</u>	~	~	~	~	<u>~</u>	~	✓	✓	✓	~	~	~	✓	~		<u>~</u>	✓	<u>~</u>	✓	V
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Develop and carry out more complex investigations, including using models.	V		<u>~</u>	<u>~</u>		<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u> </u>	<u>~</u>	<u>~</u>	$\overline{\mathbf{V}}$	<u>~</u>	$\overline{\mathbf{V}}$		$\overline{\mathbf{V}}$	\checkmark		\checkmark	<u>~</u>	V	~	V	~			~	~	✓	\checkmark		<u>~</u>	<u>~</u>	<u>~</u>		<u> </u>	\checkmark		V	
Show an increasing awareness of the complexity of working scientifically, including recognition of multiple variables.	<u> </u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	✓	<u>~</u>	<u> </u>	~	✓	~	~	~	✓	~	~	~	~	<u> </u>	<u>~</u>	<u>~</u>	<u>~</u>		<u>~</u>	✓		~	✓
Begin to evaluate the suitability of the investigative methods chosen.	<u> </u>		<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>			<u>~</u>	<u>~</u>	<u>~</u>		<u>~</u>	<u>~</u>	Comy	☑	✓	☑	<u>~</u>	<u>~</u>	<u>~</u>	✓		~				<u>~</u>	<u>~</u>								V			
Use a wider range of science vocabulary,																Comi	nunic	aung i	n sciei	nce																					
symbols, and conventions.	<u> </u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	\checkmark	<u>~</u>	<u>~</u>	$\overline{\mathbf{V}}$	<u>~</u>	\checkmark	<u>~</u>	\checkmark	\checkmark	<u>~</u>	\checkmark	\checkmark	<u>~</u>	\checkmark	\checkmark	~	\checkmark	\checkmark	✓		~	\checkmark	✓	✓	\checkmark	\checkmark	~	<u>~</u>	~		<u>~</u>	~	✓	✓	\checkmark
Apply their understandings of science to evaluate both popular and scientific texts (including visual and numerical literacy).	N	✓	<u>~</u>	<u>~</u>	<u> </u>	<u>~</u>	<u> </u>	<u>~</u>	<u>~</u>	<u>\</u>	<u> </u>	<u>~</u>	✓	<u>~</u>	<u>~</u>	✓	<u>~</u>	✓	<u>~</u>	<u>~</u>	<u> </u>	<u> </u>	<u> </u>	<u>~</u>	~	✓	Y	~	✓	✓	Y	<u> </u>	~	<u>~</u>	~	<u> </u>	N	✓	✓	~	~
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Develop an understanding of socio- scientific issues by gathering relevant scientific information in order to draw evidence-based conclusions and to take action where appropriate.	<u>~</u>			<u>~</u>				<u>~</u>			<u>~</u>	<u>~</u>	<u>~</u>	~			<u>~</u>	<u>~</u>	<u>~</u>	~				~						~		S	<u>~</u>	<u>~</u>	<u>~</u>		<u>~</u>	V	✓	~	~
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																	Life p	roces	ses																						
Describe the organisation of life at the cellular level.	<u> </u>	<u>~</u>	<u>~</u>																																						
Identify the key structural features and functions involved in the life processes of plants and animals.	<u>\</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>				<u>~</u>																													
																	Ec	ology																							
Investigate the interdependence of living things (including humans) in an ecosystem.									<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>																													
Investigate the impact of natural events and human actions on a New Zealand ecosystem.												<u>~</u>																													
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The New Zealand Curriculum	Cells	Plant Cells	Stem Cells	Body Systems	Reproduction	The Nervous System	The Endocrine System	The Immune System	Microbiomes	Food Chains and Food Webs	Invasive Species	Ecosystems	Simple Inheritance	Genetics	Evolution	Human Evolution	Earth Systems	Active Earth	Earthquakes	The Universe	Our Place in Space	Energy Conservation	Kinematics	ewtons Laws of Motion	Magnetism	Light	Sound	Electrical Circuits	Heat	Radiation	Atoms	Elements and Compounds	Acids and Bases	Reactions and Energy	Reaction Types	Metals	The Periodic Table	Introduction to Science	Science News	Engineering Challenges	Science Investigations
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Describe the basic processes by which genetic information is passed from one generation to the next.													<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>																									
Explore patterns in the inheritance of genetically controlled characteristics.													<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>																									
Explain the importance of variation within a changing environment.													<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>																									
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Investigate the composition, structure, and features of the geosphere, hydrosphere, and atmosphere.																	✓	<u>~</u>																							
Investigate the external and internal processes that shape and change the surface features of New Zealand.																		~																							
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Investigate how heat from the Sun, the Earth, and human activities is distributed around Earth by the geosphere, hydrosphere, and atmosphere.																	~	<u>~</u>		<u>~</u>																					
Develop an understanding of how the geosphere, hydrosphere, atmosphere, and biosphere interact to cycle carbon around Earth.																	✓																								
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Investigate the conditions on the planets and their moons, and the factors affecting them.																				<u>~</u>	<u>~</u>																				
Investigate the interactions between the solar, lunar, and Earth cycles and the effect of these on Earth.																				<u>~</u>	<u>~</u>																				
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															Physi	ical in	quiry	and p	hysics	conc	epts																				
Identify and describe the patterns associated with physical phenomena found in simple everyday situations involving movement, forces, electricity and magnetism, light, sound, waves, and heat. For example, identify and describe energy changes and conservation of energy, simple electrical circuits, and the effect of contact and non-contact on the motion of objects.																						∨	~	~	~	~	~	\	~	~											
Investigate trends and relationships in physical phenomena (in the areas of mechanics, electricity, electromagnetism, heat, light and waves, and atomic and nuclear physics).																						V	✓	~	<u>~</u>	Z	~	~	<u>~</u>	~											

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Stile								Living	work	,								Plane	et Ear	tn and	Беуо	na				Pny	sicai w	oria						мац	eriai vv	oria			Scie	ence	Capab	lities
The How Zealand Curriculum	Cells	Plant Cells	Stem Cells	Body Systems	Reproduction	The Nervous System	The Endocrine System	The Immune System	Microbiomes	Food Chains and Food Webs	Invasive Species	Ecosystems	Simple Inheritance	Genetics	Evolution	Human Evolution	i i	Earth Systems	Active Earth	Earthquakes	The Universe	Our Place in Space	Energy Conservation	Kinematics	wtons Laws of Motion	Magnetism	Light	Sound	Electrical Circuits	Heat	Radiation	Atoms	Elements and Compounds	Acids and Bases	Reactions and Energy	Reaction Types	Metals	The Periodic Table	Introduction to Science	Science News	Engineering Challenges	Science Investigations
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Demonstrate an understanding of physical phenomena and concepts by explaining and solving questions and problems that relate to straightforward situations.																							<u>~</u>	~	~	✓	<u>\</u>	<u>~</u>	Y	V	>											
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Explore & investigate a technological or biological application of physics.																							~	~	V	<u>~</u>	$\overline{\mathbf{Z}}$	V	$\overline{\mathbf{V}}$	\checkmark	<u>~</u>											
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Investigate the chemical and physical properties of different groups of substances, for example, acids and bases, fuels, and metals.																																		<u> </u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>				
Explore factors that affect chemical processes.																																	~	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	~				
Distinguish between pure substances and mixtures and between elements and compounds.																																	<u>~</u>				<u>~</u>	~				
																Th	e st	ructu	re of	matt	er																,					
Describe the structure of the atoms of different elements.																																<u>~</u>	<u>~</u>					<u>~</u>				
Distinguish between atoms, molecules, and ions (includes covalent and ionic bonding).																																<u> </u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	~				
Distinguish between an element and a compound, a pure substance and a mixture at particle level.																																~					~	~				
Link atomic structure to the organisation of the periodic table.																																					<u>~</u>	<u>~</u>				
Use particle theory to explain factors that affect chemical processes.																																			<u>~</u>	<u>~</u>						
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Link the properties of different groups of substances to the way they are used in society or occur in nature.												<u>~</u>																				<u> </u>	<u>~</u>	<u> </u>	<u>~</u>	<u> </u>	<u> </u>	<u>~</u>				