SCIENCE CURRICULUM NEW ZEALAND

GRADE 3 - 10





VISIT: 3P.STEMSCOPES.SCIENCE



CONTENTS

Grade 3	pg 3
Grade 4	pg 8
Grade 5	pg 14
Grade 6	pg 18
Grade 7	pg 23
Grade 8	pg 28
Grade 9	pg 34
Grade 10	pg 40
Contact Us	pg 47



Module Name	Grade	Standard	Description
Objects in the Sky 3	3	L1/2.PE.3a	Share ideas and observations about the Sun and the Moon and their physical effects on the heat and light available to Earth.
		L1/2.NS.1a	Appreciate that scientists ask questions about our world that lead to investigations and that open- mindedness is important because there may be more than one explanation.
		L1/2.NS.2a	Extend their experiences and personal explanations of the natural world through exploration, play, asking questions, and discussing simple models.
		L1/2.NS.3a	Build their language and develop their understandings of the many ways the natural world can be represented.
		L1/2.NS.4a	Explore and act on issues and questions that link their science learning to their daily living.
Plant and Animal Extinction	3	L1/2.LW.2a	Recognise that living things are suited to their particular habitat.
		L1/2.LW.3b	Explain how we know that some living things from the past are now extinct.
		L1/2.NS.1a	Appreciate that scientists ask questions about our world that lead to investigations and that open- mindedness is important because there may be more than one explanation.
		L1/2.NS.2a	Extend their experiences and personal explanations of the natural world through exploration, play, asking questions, and discussing simple models.
		L1/2.NS.3a	Build their language and develop their understandings of the many ways the natural world can be represented.
		L1/2.NS.4a	Explore and act on issues and questions that link their science learning to their daily living.
Classifying Animals	3	L1/2.LW.3a Recognise that there things in the world a different ways.	Recognise that there are lots of different living things in the world and that they can be grouped in different ways.
		L1/2.NS.1a	Appreciate that scientists ask questions about our world that lead to investigations and that open- mindedness is important because there may be more than one explanation.
		L1/2.NS.2a	Extend their experiences and personal explanations of the natural world through exploration, play, asking questions, and discussing simple models.



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		L1/2.NS.3a	Build their language and develop their understandings of the many ways the natural world can be represented.
		L1/2.NS.4a	Explore and act on issues and questions that link their science learning to their daily living.
Classifying Plants 3	3	L1/2.LW.3a	Recognise that there are lots of different living things in the world and that they can be grouped in different ways.
		L1/2.NS.1a	Appreciate that scientists ask questions about our world that lead to investigations and that open- mindedness is important because there may be more than one explanation.
		L1/2.NS.2a	Extend their experiences and personal explanations of the natural world through exploration, play, asking questions, and discussing simple models.
		L1/2.NS.3a	Build their language and develop their understandings of the many ways the natural world can be represented.
		L1/2.NS.4a	Explore and act on issues and questions that link their science learning to their daily living.
		Heat Flow	3
		L1/2.MW.2a	Find out about the uses of common materials and relate these to their observed properties.
		L1/2.NS.1a	Appreciate that scientists ask questions about our world that lead to investigations and that open- mindedness is important because there may be more than one explanation.
		L1/2.NS.2a	Extend their experiences and personal explanations of the natural world through exploration, play, asking questions, and discussing simple models.
	L1/2.NS.3a	Build their language and develop their understandings of the many ways the natural world can be represented.	
		L1/2.NS.4a	Explore and act on issues and questions that link their science learning to their daily living.
The Sun's Energy		3	L1/2.PE.1a
		L1/2.PE.3a	Share ideas and observations about the Sun and the Moon and their physical effects on the heat and light available to Earth.
		L1/2.NS.1a	Appreciate that scientists ask questions about our world that lead to investigations and that open- mindedness is important because there may be more than one explanation.



	L1/2.NS.2a	Extend their experiences and personal explanations of the natural world through exploration, play, asking questions, and discussing simple models.	
		L1/2.NS.3a	Build their language and develop their understandings of the many ways the natural world can be represented.
		L1/2.NS.4a	Explore and act on issues and questions that link their science learning to their daily living.
		Producing Heat Energy	3
		L1/2.NS.1a	Appreciate that scientists ask questions about our world that lead to investigations and that open- mindedness is important because there may be more than one explanation.
	L1/2.NS.2a	Extend their experiences and personal explanations of the natural world through exploration, play, asking questions, and discussing simple models.	
	L1/2.NS.3a	Build their language and develop their understandings of the many ways the natural world can be represented.	
		L1/2.NS.4a	Explore and act on issues and questions that link their science learning to their daily living.
Earth, Sun, and Moon System	arth, Sun, and 3 loon System	L1/2.PE.3a	Share ideas and observations about the Sun and the Moon and their physical effects on the heat and light available to Earth.
		L1/2.PE.2a	Describe how natural features are changed and resources affected by natural events and human actions.
		L1/2.NS.1a	Appreciate that scientists ask questions about our world that lead to investigations and that open- mindedness is important because there may be more than one explanation.
		L1/2.NS.2a	Extend their experiences and personal explanations of the natural world through exploration, play, asking questions, and discussing simple models.
		L1/2.NS.3a	Build their language and develop their understandings of the many ways the natural world can be represented.
		L1/2.NS.4a	Explore and act on issues and questions that link their science learning to their daily living.



Diversity of Living Things	3	L1/2.LW.1a	Recognise that all living things have certain requirements so they can stay alive.
		L1/2.LW.2a	Recognise that living things are suited to their particular habitat.
		L1/2.LW.3b	Explain how we know that some living things from the past are now extinct.
		L1/2.NS.1a	Appreciate that scientists ask questions about our world that lead to investigations and that open- mindedness is important because there may be more than one explanation.
		L1/2.NS.2a	Extend their experiences and personal explanations of the natural world through exploration, play, asking questions, and discussing simple models.
		L1/2.NS.3a	Build their language and develop their understandings of the many ways the natural world can be represented.
		L1/2.NS.4a	Explore and act on issues and questions that link their science learning to their daily living.
Earth's Rotation	3	L1/2.PE.3a	Share ideas and observations about the Sun and the Moon and their physical effects on the heat and light available to Earth.
		L1/2.PE.2a	Describe how natural features are changed and resources affected by natural events and human actions.
		L1/2.NS.1a	Appreciate that scientists ask questions about our world that lead to investigations and that open- mindedness is important because there may be more than one explanation.
		L1/2.NS.2a	Extend their experiences and personal explanations of the natural world through exploration, play, asking questions, and discussing simple models.
		L1/2.NS.3a	Build their language and develop their understandings of the many ways the natural world can be represented.
		L1/2.NS.4a	Explore and act on issues and questions that link their science learning to their daily living.
Changes from Heat	3	L1/2.MW.1a	Observe, describe, and compare physical and chemical properties of common materials and changes that occur when materials are mixed, heated, or cooled.
		L1/2.MW.2a	Find out about the uses of common materials and relate these to their observed properties.



	L1/2.NS.1a	Appreciate that scientists ask questions about our world that lead to investigations and that open- mindedness is important because there may be more than one explanation.	
	L1/2.NS.2a	Extend their experiences and personal explanations of the natural world through exploration, play, asking questions, and discussing simple models.	
		L1/2.NS.3a	Build their language and develop their understandings of the many ways the natural world can be represented.
		L1/2.NS.4a	Explore and act on issues and questions that link their science learning to their daily living.
Living and Nonliving Things	3	L1/2.LW.1a	Recognise that all living things have certain requirements so they can stay alive.
	L1/2.LW.2a	Recognise that living things are suited to their particular habitat.	
	L1/2.NS.1a	Appreciate that scientists ask questions about our world that lead to investigations and that open- mindedness is important because there may be more than one explanation.	
		L1/2.NS.2a	Extend their experiences and personal explanations of the natural world through exploration, play, asking questions, and discussing simple models.
		L1/2.NS.3a	Build their language and develop their understandings of the many ways the natural world can be represented.
		L1/2.NS.4a	Explore and act on issues and questions that link their science learning to their daily living.



Module Name	Grade	Standard	Description
Properties of 4 Materials	4	L1/2.MW.2a	Find out about the uses of common materials and relate these to their observed properties.
		L1/2.NS.1a	Appreciate that scientists ask questions about our world that lead to investigations and that open- mindedness is important because there may be more than one explanation.
		L1/2.NS.2a	Extend their experiences and personal explanations of the natural world through exploration, play, asking questions, and discussing simple models.
		L1/2.NS.3a	Build their language and develop their understandings of the many ways the natural world can be represented.
		L1/2.NS.4a	Explore and act on issues and questions that link their science learning to their daily living.
Objects and Motion	4	L1/2.PW.1a	Explore everyday examples of physical phenomena, such as movement, forces, electricity and magnetism, light, sound, waves, and heat.
		L1/2.PW.1b	Seek and describe simple patterns in physical phenomena.
		L1/2.NS.1a	Appreciate that scientists ask questions about our world that lead to investigations and that open- mindedness is important because there may be more than one explanation.
		L1/2.NS.2a	Extend their experiences and personal explanations of the natural world through exploration, play, asking questions, and discussing simple models.
		L1/2.NS.3a	Build their language and develop their understandings of the many ways the natural world can be represented.
		L1/2.NS.4a	Explore and act on issues and questions that link their science learning to their daily living.
Friction	4	L1/2.PW.1a	Explore everyday examples of physical phenomena, such as movement, forces, electricity and magnetism, light, sound, waves, and heat.
		L1/2.PW.1b	Seek and describe simple patterns in physical phenomena.
		L1/2.NS.1a	Appreciate that scientists ask questions about our world that lead to investigations and that open- mindedness is important because there may be more than one explanation.



		L1/2.NS.2a	Extend their experiences and personal explanations of the natural world through exploration, play, asking questions, and discussing simple models.
		L1/2.NS.3a	Build their language and develop their understandings of the many ways the natural world can be represented.
		L1/2.NS.4a	Explore and act on issues and questions that link their science learning to their daily living.
Properties of Soil	4	L1/2.PE.1a	Explore and describe natural features and resources.
		L1/2.PE.2a	Describe how natural features are changed and resources affected by natural events and human actions.
		L1/2.NS.1a	Appreciate that scientists ask questions about our world that lead to investigations and that open- mindedness is important because there may be more than one explanation.
		L1/2.NS.2a	Extend their experiences and personal explanations of the natural world through exploration, play, asking questions, and discussing simple models.
		L1/2.NS.3a	Build their language and develop their understandings of the many ways the natural world can be represented.
		L1/2.NS.4a	Explore and act on issues and questions that link their science learning to their daily living.
Magnets	4	L1/2.PW.1a	Explore everyday examples of physical phenomena, such as movement, forces, electricity and magnetism, light, sound, waves, and heat.
		L1/2.PW.1b	Seek and describe simple patterns in physical phenomena.
	L1/2.NS.1a	Appreciate that scientists ask questions about our world that lead to investigations and that open- mindedness is important because there may be more than one explanation.	
		L1/2.NS.2a	Extend their experiences and personal explanations of the natural world through exploration, play, asking questions, and discussing simple models.
		L1/2.NS.3a	Build their language and develop their understandings of the many ways the natural world can be represented.
		L1/2.NS.4a	Explore and act on issues and questions that link their science learning to their daily living.



Animal and Plant 4 Dependence	4	L1/2.LW.1a	Recognise that all living things have certain requirements so they can stay alive.
		L1/2.LW.2a	Recognise that living things are suited to their particular habitat.
		L1/2.NS.1a	Appreciate that scientists ask questions about our world that lead to investigations and that open- mindedness is important because there may be more than one explanation.
		L1/2.NS.2a	Extend their experiences and personal explanations of the natural world through exploration, play, asking questions, and discussing simple models.
		L1/2.NS.3a	Build their language and develop their understandings of the many ways the natural world can be represented.
		L1/2.NS.4a	Explore and act on issues and questions that link their science learning to their daily living.
Quick Changes to Land	4	L1/2.PE.2a	Describe how natural features are changed and resources affected by natural events and human actions.
		L1/2.NS.1a	Appreciate that scientists ask questions about our world that lead to investigations and that open- mindedness is important because there may be more than one explanation.
		L1/2.NS.2a	Extend their experiences and personal explanations of the natural world through exploration, play, asking questions, and discussing simple models.
		L1/2.NS.3a	Build their language and develop their understandings of the many ways the natural world can be represented.
		L1/2.NS.4a	Explore and act on issues and questions that link their science learning to their daily living.
Slow Changes to Land	4	L1/2.PE.2a	Describe how natural features are changed and resources affected by natural events and human actions.
		L1/2.NS.1a	Appreciate that scientists ask questions about our world that lead to investigations and that open- mindedness is important because there may be more than one explanation.
		L1/2.NS.2a	Extend their experiences and personal explanations of the natural world through exploration, play, asking questions, and discussing simple models.
		L1/2.NS.3a	Build their language and develop their understandings of the many ways the natural world can be represented.



		L1/2.NS.4a	Explore and act on issues and questions that link their science learning to their daily living.
Energy and Speed	4	L1/2.PW.1a	Explore everyday examples of physical phenomena, such as movement, forces, electricity and magnetism, light, sound, waves, and heat.
		L1/2.PW.1b	Seek and describe simple patterns in physical phenomena.
		L1/2.NS.1a	Appreciate that scientists ask questions about our world that lead to investigations and that open- mindedness is important because there may be more than one explanation.
		L1/2.NS.2a	Extend their experiences and personal explanations of the natural world through exploration, play, asking questions, and discussing simple models.
		L1/2.NS.3a	Build their language and develop their understandings of the many ways the natural world can be represented.
		L1/2.NS.4a	Explore and act on issues and questions that link their science learning to their daily living.
Energy and Collision 4	4	L1/2.PW.1a	Explore everyday examples of physical phenomena, such as movement, forces, electricity and magnetism, light, sound, waves, and heat.
		L1/2.PW.1b	Seek and describe simple patterns in physical phenomena.
	L1/2.NS.1a	Appreciate that scientists ask questions about our world that lead to investigations and that open- mindedness is important because there may be more than one explanation.	
	L1/2.NS.2a	Extend their experiences and personal explanations of the natural world through exploration, play, asking questions, and discussing simple models.	
		L1/2.NS.3a	Build their language and develop their understandings of the many ways the natural world can be represented.
		L1/2.NS.4a	Explore and act on issues and questions that link their science learning to their daily living.
Rock Patterns	4	L1/2.PE.1a	Explore and describe natural features and resources.
		L1/2.PE.2a	Describe how natural features are changed and resources affected by natural events and human actions.



		L1/2.NS.1a	Appreciate that scientists ask questions about our world that lead to investigations and that open- mindedness is important because there may be more than one explanation.
		L1/2.NS.2a	Extend their experiences and personal explanations of the natural world through exploration, play, asking questions, and discussing simple models.
		L1/2.NS.3a	Build their language and develop their understandings of the many ways the natural world can be represented.
		L1/2.NS.4a	Explore and act on issues and questions that link their science learning to their daily living.
Renewable and Non-Renewable Resources	4	L1/2.PE.1a	Explore and describe natural features and resources.
		L1/2.PE.2a	Describe how natural features are changed and resources affected by natural events and human actions.
		L1/2.NS.1a	Appreciate that scientists ask questions about our world that lead to investigations and that open- mindedness is important because there may be more than one explanation.
		L1/2.NS.2a	Extend their experiences and personal explanations of the natural world through exploration, play, asking questions, and discussing simple models.
		L1/2.NS.3a	Build their language and develop their understandings of the many ways the natural world can be represented.
		L1/2.NS.4a	Explore and act on issues and questions that link their science learning to their daily living.
Organism Interactions in Ecosystems	4	L1/2.LW.1a	Recognise that all living things have certain requirements so they can stay alive.
		L1/2.LW.2a	Recognise that living things are suited to their particular habitat.
		L1/2.NS.1a	Appreciate that scientists ask questions about our world that lead to investigations and that open- mindedness is important because there may be more than one explanation.
		L1/2.NS.2a	Extend their experiences and personal explanations of the natural world through exploration, play, asking questions, and discussing simple models.





L1/2.NS.3a	Build their language and develop their understandings of the many ways the natural world can be represented.
L1/2.NS.4a	Explore and act on issues and questions that link their science learning to their daily living.



Module Name	Grade	Standard	Description															
The Sun	5	L3.PE.3a	Investigate the components of the solar system, developing an appreciation of the distances between them.															
		L3.NS.1b	Identify ways in which scientists work together and provide evidence to support their ideas.															
		L3.NS.2a	Build on prior experiences, working together to share and examine their own and others' knowledge.															
		L3.NS.3b	Engage with a range of science texts and begin to question the purposes for which these texts are constructed.															
		L3.NS.4a	Use their growing science knowledge when considering issues of concern to them.															
Properties of Water	5	L3.MW.1a	Group materials in different ways, based on the observations and measurements of the characteristic chemical and physical properties of a range of different materials.															
		L3.MW.1b	Compare chemical and physical changes.															
		L3.MW.2a	Relate the observed, characteristic chemical and physical properties of a range of different materials to technological uses and natural processes.															
		L3.NS.1b	Identify ways in which scientists work together and provide evidence to support their ideas.															
		L3.NS.2b	Ask questions, find evidence, explore simple models, and carry out appropriate investigations to develop simple explanations.															
		L3.NS.3a	Begin to use a range of scientific symbols, conventions, and vocabulary.															
		L3.NS.4b	Explore various aspects of an issue and make decisions about possible actions.															
Classifying Matter	5	L3.MW.1a	Group materials in different ways, based on the observations and measurements of the characteristic chemical and physical properties of a range of different materials.															
		L3.MW.1b	Compare chemical and physical changes.															
		L3.NS.1b	Identify ways in which scientists work together and provide evidence to support their ideas.															
		L3.NS.2b	Ask questions, find evidence, explore simple models, and carry out appropriate investigations to develop simple explanations.															



		L3.NS.3a	Begin to use a range of scientific symbols, conventions, and vocabulary.																	
		L3.NS.4a	Use their growing science knowledge when considering issues of concern to them.																	
Behaviour of Light	5	L3.PW.1a	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 non-contact) on the motion of objects; identify and describe everyday examples of sources of energy, forms of energy, and energy transformations.																	
		L3.NS.1b	Identify ways in which scientists work together and provide evidence to support their ideas.																	
		L3.NS.2a	Build on prior experiences, working together to share and examine their own and others' knowledge.																	
		L3.NS.2b	Ask questions, find evidence, explore simple models, and carry out appropriate investigations to develop simple explanations.																	
		L3.NS.3a	Begin to use a range of scientific symbols, conventions, and vocabulary.																	
		L3.NS.4a	Use their growing science knowledge when considering issues of concern to them.																	
Life Cycles	5	L3.LW.1a	Recognise that there are life processes common to all living things and that these occur in different ways.																	
		L3.LW.3a	Begin to group plants, animals, and other living things into science-based classifications.																	
		L3.NS.1b	Identify ways in which scientists work together and provide evidence to support their ideas.																	
				L3.NS.1a	Appreciate that science is a way of explaining the world and that science knowledge changes over time.															
		L3.NS.2a	Build on prior experiences, working together to share and examine their own and others' knowledge.																	
		L3.NS.3a	Begin to use a range of scientific symbols, conventions, and vocabulary.																	



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Fossils	5	L3.LW.3a	Begin to group plants, animals, and other living things into science-based classifications.
		L3.LW.3b	Explore how the groups of living things we have in the world have changed over long periods of time and appreciate that some living things in New Zealand are quite different from living things in other areas of the world.
		L3.NS.1a	Appreciate that science is a way of explaining the world and that science knowledge changes over time.
		L3.NS.2a	Build on prior experiences, working together to share and examine their own and others' knowledge.
		L3.NS.3b	Engage with a range of science texts and begin to question the purposes for which these texts are constructed.
		L3.NS.4a	Use their growing science knowledge when considering issues of concern to them.
Energy Transfer	5	L3.PW.1a	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 non-contact) on the motion of objects; identify and describe everyday examples of sources of energy, forms of energy, and energy transformations.
		L3.NS.1a	Appreciate that science is a way of explaining the world and that science knowledge changes over time.
		L3.NS.1b	Identify ways in which scientists work together and provide evidence to support their ideas.
		L3.NS.2b	Ask questions, find evidence, explore simple models, and carry out appropriate investigations to develop simple explanations.
		L3.NS.3a	Begin to use a range of scientific symbols, conventions, and vocabulary.
		L3.NS.4a	Use their growing science knowledge when considering issues of concern to them.
		L3.NS.4b	Explore various aspects of an issue and make decisions about possible actions.



Properties of Visible Light	5	L3.PW.1a	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 non-contact) on the motion of objects; identify and describe everyday examples of sources of energy, forms of energy, and energy transformations.
		L3.NS.1b	Identify ways in which scientists work together and provide evidence to support their ideas.
		L3.NS.2a	Build on prior experiences, working together to share and examine their own and others' knowledge.
		L3.NS.2b	Ask questions, find evidence, explore simple models, and carry out appropriate investigations to develop simple explanations.
		L3.NS.3a	Begin to use a range of scientific symbols, conventions, and vocabulary.
		L3.NS.4a	Use their growing science knowledge when considering issues of concern to them.
Adaptations	5	L3.LW.2a	Explain how living things are suited to their particular habitat and how they respond to environmental changes, both natural and human- induced.
		L3.LW.3b	Explore how the groups of living things we have in the world have changed over long periods of time and appreciate that some living things in New Zealand are quite different from living things in other areas of the world.
		L3.NS.1a	Appreciate that science is a way of explaining the world and that science knowledge changes over time.
		L3.NS.2b	Ask questions, find evidence, explore simple models, and carry out appropriate investigations to develop simple explanations.
		L3.NS.3a	Begin to use a range of scientific symbols, conventions, and vocabulary.
		L3.NS.4b	Explore various aspects of an issue and make decisions about possible actions.



Module Name	Grade	Standard	Description
Alternative Energy	6	L3.PW.1a	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 non-contact) on the motion of objects; identify and describe everyday examples of sources of energy, forms of energy, and energy transformations.
		L3.NS.1a	Appreciate that science is a way of explaining the world and that science knowledge changes over time.
		L3.NS.2a	Build on prior experiences, working together to share and examine their own and others' knowledge.
		L3.NS.3b	Engage with a range of science texts and begin to question the purposes for which these texts are constructed.
		L3.NS.4a	Use their growing science knowledge when considering issues of concern to them.
Matter Changing States	6	L3.MW.1a	Group materials in different ways, based on the observations and measurements of the characteristic chemical and physical properties of a range of different materials.
		L3.MW.1b	Compare chemical and physical changes.
		L3.MW.2a	Relate the observed, characteristic chemical and physical properties of a range of different materials to technological uses and natural processes.
Organisms in Extreme Environments	6	L3.LW.2a	Explain how living things are suited to their particular habitat and how they respond to environmental changes, both natural and human- induced.
		L3.NS.1a	Appreciate that science is a way of explaining the world and that science knowledge changes over time.
		L3.NS.2a	Build on prior experiences, working together to share and examine their own and others' knowledge.
		L3.NS.3b	Engage with a range of science texts and begin to question the purposes for which these texts are constructed.
		L3.NS.4a	Use their growing science knowledge when considering issues of concern to them.



Physical and	6	12 M/M 12	Croup materials in different ways based on
Chemical Changes	0	L3.19199.1a	the observations and measurements of the characteristic chemical and physical properties of a range of different materials.
		L3.MW.1b	Compare chemical and physical changes.
		L3.MW.2a	Relate the observed, characteristic chemical and physical properties of a range of different materials to technological uses and natural processes.
		L3.NS.1b	Identify ways in which scientists work together and provide evidence to support their ideas.
		L3.NS.2b	Ask questions, find evidence, explore simple models, and carry out appropriate investigations to develop simple explanations.
		L3.NS.3a	Begin to use a range of scientific symbols, conventions, and vocabulary.
		L3.NS.4b	Explore various aspects of an issue and make decisions about possible actions.
Forms and Uses of Energy	6	L3.PW.1a	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 non-contact) on the motion of objects; identify and describe everyday examples of sources of energy, forms of energy, and energy transformations.
		L3.NS.1a	Appreciate that science is a way of explaining the world and that science knowledge changes over time.
		L3.NS.1b	Identify ways in which scientists work together and provide evidence to support their ideas.
		L3.NS.2b	Ask questions, find evidence, explore simple models, and carry out appropriate investigations to develop simple explanations.
		L3.NS.3b	Engage with a range of science texts and begin to question the purposes for which these texts are constructed.
		L3.NS.4a	Use their growing science knowledge when considering issues of concern to them.



Electric Circuits	6	L3.PW.1a	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 non-contact) on the motion of objects; identify and describe everyday examples of sources of energy, forms of energy, and energy transformations.
		L3.NS.1b	Identify ways in which scientists work together and provide evidence to support their ideas.
		L3.NS.2a	Build on prior experiences, working together to share and examine their own and others' knowledge.
		L3.NS.2b	Ask questions, find evidence, explore simple models, and carry out appropriate investigations to develop simple explanations.
		L3.NS.3a	Begin to use a range of scientific symbols, conventions, and vocabulary.
		L3.NS.4b	Explore various aspects of an issue and make decisions about possible actions.
Classification of Organisms	6	L3.LW.3a	Begin to group plants, animals, and other living things into science-based classifications.
		L3.NS.1b	Identify ways in which scientists work together and provide evidence to support their ideas.
		L3.NS.2a	Build on prior experiences, working together to share and examine their own and others' knowledge.
		L3.NS.3a	Begin to use a range of scientific symbols, conventions, and vocabulary.
		L3.NS.4b	Explore various aspects of an issue and make decisions about possible actions.
Environmental Changes and Effects	6	L3.LW.2a	Explain how living things are suited to their particular habitat and how they respond to environmental changes, both natural and human- induced.
		L3.LW.3b	Explore how the groups of living things we have in the world have changed over long periods of time and appreciate that some living things in New Zealand are quite different from living things in other areas of the world.
		L3.NS.1a	Appreciate that science is a way of explaining the world and that science knowledge changes over time.
		L3.NS.2b	Ask questions, find evidence, explore simple models, and carry out appropriate investigations to develop simple explanations.



		L3.NS.3b	Engage with a range of science texts and begin to question the purposes for which these texts are constructed.
		L3.NS.4a	Use their growing science knowledge when considering issues of concern to them.
Natural Processes	6	L3.PE.1a	Appreciate that water, air, rocks and soil, and life forms make up our planet and recognise that these are also Earth's resources.
		L3.NS.1a	Appreciate that science is a way of explaining the world and that science knowledge changes over time.
		L3.NS.2a	Build on prior experiences, working together to share and examine their own and others' knowledge.
		L3.NS.3b	Engage with a range of science texts and begin to question the purposes for which these texts are constructed.
		L3.NS.4b	Explore various aspects of an issue and make decisions about possible actions.
Mixtures	6	L3.MW.1a	Group materials in different ways, based on the observations and measurements of the characteristic chemical and physical properties of a range of different materials.
		L3.NS.1b	Identify ways in which scientists work together and provide evidence to support their ideas.
		L3.NS.2a	Build on prior experiences, working together to share and examine their own and others' knowledge.
		L3.NS.2b	Ask questions, find evidence, explore simple models, and carry out appropriate investigations to develop simple explanations.
		L3.NS.3a	Begin to use a range of scientific symbols, conventions, and vocabulary.
		L3.NS.4a	Use their growing science knowledge when considering issues of concern to them.
Growth of Plants	6	L3.LW.1a	Recognise that there are life processes common to all living things and that these occur in different ways.
		L3.LW.2a	Explain how living things are suited to their particular habitat and how they respond to environmental changes, both natural and human- induced.
		L3.NS.1b	Identify ways in which scientists work together and provide evidence to support their ideas.



		L3.NS.2b	Ask questions, find evidence, explore simple models, and carry out appropriate investigations to develop simple explanations.
		L3.NS.3a	Begin to use a range of scientific symbols, conventions, and vocabulary.
		L3.NS.4a	Use their growing science knowledge when considering issues of concern to them.
The Water Cycle 6	6	L3.PE.2a	Investigate the water cycle and its effect on climate, landforms, and life.
		L3.NS.1b	Identify ways in which scientists work together and provide evidence to support their ideas.
		L3.NS.2a	Build on prior experiences, working together to share and examine their own and others' knowledge.
		L3.NS.2b	Ask questions, find evidence, explore simple models, and carry out appropriate investigations to develop simple explanations.
		L3.NS.3a	Begin to use a range of scientific symbols, conventions, and vocabulary.
		L3.NS.4b	Explore various aspects of an issue and make decisions about possible actions.



Module Name	Grade	Standard	Description
Rotation and Revolution	7	L4.PE.3a	Investigate the components of the solar system, developing an appreciation of the distances between them.
		L4.NS.1a	Appreciate that science is a way of explaining the world and that science knowledge changes over time.
		L4.NS.1b	Identify ways in which scientists work together and provide evidence to support their ideas.
		L4.NS.2a	Build on prior experiences, working together to share and examine their own and others' knowledge.
		L4.NS.3a	Begin to use a range of scientific symbols, conventions, and vocabulary.
		L4.NS.4a	Use their growing science knowledge when considering issues of concern to them.
Simple Machines	7	L4.PW.1a	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 non-contact) on the motion of objects; identify and describe everyday examples of sources of energy, forms of energy, and energy transformations.
		L4.NS.1b	Identify ways in which scientists work together and provide evidence to support their ideas.
		L4.NS.2a	Build on prior experiences, working together to share and examine their own and others' knowledge.
		L4.NS.3a	Begin to use a range of scientific symbols, conventions, and vocabulary.
		L4.NS.4a	Use their growing science knowledge when considering issues of concern to them.
Separating Mixtures	7	L4.MW.1a	Group materials in different ways, based on the observations and measurements of the characteristic chemical and physical properties of a range of different materials.
		L4.MW.1b	Compare chemical and physical changes.
		L4.MW.2a	Begin to develop an understanding of the particle nature of matter and use this to explain observed changes.
		L4.MW.3a	Relate the observed, characteristic chemical and physical properties of a range of different materials to technological uses and natural processes.



		L4.NS.1a	Appreciate that science is a way of explaining the world and that science knowledge changes over time.
		L4.NS.2b	Ask questions, find evidence, explore simple models, and carry out appropriate investigations to develop simple explanations.
		L4.NS.3a	Begin to use a range of scientific symbols, conventions, and vocabulary.
		L4.NS.4a	Use their growing science knowledge when considering issues of concern to them.
		L4.NS.4b	Explore various aspects of an issue and make decisions about possible actions.
Pure Substances And 7 Mixtures	7	L4.MW.1a	Group materials in different ways, based on the observations and measurements of the characteristic chemical and physical properties of a range of different materials.
		L4.MW.1b	Compare chemical and physical changes.
		L4.MW.2a	Begin to develop an understanding of the particle nature of matter and use this to explain observed changes.
		L4.MW.3a	Relate the observed, characteristic chemical and physical properties of a range of different materials to technological uses and natural processes.
		L4.NS.1a	Appreciate that science is a way of explaining the world and that science knowledge changes over time.
		L4.NS.1b	Identify ways in which scientists work together and provide evidence to support their ideas.
		L4.NS.2a	Build on prior experiences, working together to share and examine their own and others' knowledge.
		L4.NS.2b	Ask questions, find evidence, explore simple models, and carry out appropriate investigations to develop simple explanations.
		L4.NS.3b	Engage with a range of science texts and begin to question the purposes for which these texts are constructed.
		L4.NS.4b	Explore various aspects of an issue and make decisions about possible actions.
Food Chains and Food Webs	7	L4.LW.1a	Recognise that there are life processes common to all living things and that these occur in different ways.
		L4.LW.2a	Explain how living things are suited to their particular habitat and how they respond to environmental changes, both natural and human- induced.



		L4.LW.3a	Begin to group plants, animals, and other living things into science-based classifications.
		L4.NS.1a	Appreciate that science is a way of explaining the world and that science knowledge changes over time.
		L4.NS.2a	Build on prior experiences, working together to share and examine their own and others' knowledge.
		L4.NS.3a	Begin to use a range of scientific symbols, conventions, and vocabulary.
		L4.NS.4a	Use their growing science knowledge when considering issues of concern to them.
Ecosystems	7	L4.LW.1a	Recognise that there are life processes common to all living things and that these occur in different ways.
		L4.LW.2a	Explain how living things are suited to their particular habitat and how they respond to environmental changes, both natural and human- induced.
		L4.LW.3b	Explore how the groups of living things we have in the world have changed over long periods of time and appreciate that some living things in New Zealand are quite different from living things in other areas of the world.
		L4.NS.1b	Identify ways in which scientists work together and provide evidence to support their ideas.
		L4.NS.2b	Ask questions, find evidence, explore simple models, and carry out appropriate investigations to develop simple explanations.
		L4.NS.3a	Begin to use a range of scientific symbols, conventions, and vocabulary.
		L4.NS.4a	Use their growing science knowledge when considering issues of concern to them.
Energy Transfer in Motion	7	L4.PW.1a	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 non-contact) on the motion of objects; identify and describe everyday examples of sources of energy, forms of energy, and energy transformations.
		L4.NS.1b	Identify ways in which scientists work together and provide evidence to support their ideas.
		L4.NS.2a	Build on prior experiences, working together to share and examine their own and others' knowledge.



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		L4.NS.2b	Ask questions, find evidence, explore simple models, and carry out appropriate investigations to develop simple explanations.
		L4.NS.3a	Begin to use a range of scientific symbols, conventions, and vocabulary.
		L4.NS.4a	Use their growing science knowledge when considering issues of concern to them.
		L4.NS.4b	Explore various aspects of an issue and make decisions about possible actions.
Gravity	7	L4.PE.3a	Investigate the components of the solar system, developing an appreciation of the distances between them.
		L4.NS.1b	Identify ways in which scientists work together and provide evidence to support their ideas.
		L4.NS.2b	Ask questions, find evidence, explore simple models, and carry out appropriate investigations to develop simple explanations.
		L4.NS.3b	Engage with a range of science texts and begin to question the purposes for which these texts are constructed.
		L4.NS.4b	Explore various aspects of an issue and make decisions about possible actions.
		L4.PE.2a	Investigate the water cycle and its effect on climate, landforms, and life.
Balanced and Unbalanced Forces	7	L4.PW.1a	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 non-contact) on the motion of objects; identify and describe everyday examples of sources of energy, forms of energy, and energy transformations.
		L4.NS.1a	Appreciate that science is a way of explaining the world and that science knowledge changes over time.
		L4.NS.1b	Identify ways in which scientists work together and provide evidence to support their ideas.
		L4.NS.2a	Build on prior experiences, working together to share and examine their own and others' knowledge.
		L4.NS.2b	Ask questions, find evidence, explore simple models, and carry out appropriate investigations to develop simple explanations.
		L4.NS.3a	Begin to use a range of scientific symbols.



		L4.NS.4a	Use their growing science knowledge when considering issues of concern to them.
The Solar System	7	L4.PE.3a	Investigate the components of the solar system, developing an appreciation of the distances between them.
		L4.NS.1a	Appreciate that science is a way of explaining the world and that science knowledge changes over time.
		L4.NS.2b	Ask questions, find evidence, explore simple models, and carry out appropriate investigations to develop simple explanations.
		L4.NS.3b	Engage with a range of science texts and begin to question the purposes for which these texts are constructed.
		L4.NS.4a	Use their growing science knowledge when considering issues of concern to them.



Module Name	Grade	Standard	Description
Kinetic Energy	8	L4.PW.1a	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 non-contact) on the motion of objects; identify and describe everyday examples of sources of energy, forms of energy, and energy transformations.
		L4.NS.1a	Appreciate that science is a way of explaining the world and that science knowledge changes over time.
		L4.NS.1b	Identify ways in which scientists work together and provide evidence to support their ideas.
		L4.NS.2a	Build on prior experiences, working together to share and examine their own and others' knowledge.
		L4.NS.2b	Ask questions, find evidence, explore simple models, and carry out appropriate investigations to develop simple explanations.
		L4.NS.3a	Begin to use a range of scientific symbols, conventions, and vocabulary.
		L4.NS.3b	Engage with a range of science texts and begin to question the purposes for which these texts are constructed.
		L4.NS.4b	Explore various aspects of an issue and make decisions about possible actions.
Elements and Compounds	8	L4.MW.1a	Group materials in different ways, based on the observations and measurements of the characteristic chemical and physical properties of a range of different materials.
		L4.MW.2a	Begin to develop an understanding of the particle nature of matter and use this to explain observed changes.
		L4.MW.3a	Relate the observed, characteristic chemical and physical properties of a range of different materials to technological uses and natural processes.
		L4.NS.1b	Identify ways in which scientists work together and provide evidence to support their ideas.
		L4.NS.2a	Build on prior experiences, working together to share and examine their own and others' knowledge.
		L4.NS.3a	Begin to use a range of scientific symbols, conventions, and vocabulary.



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		L4.NS.3b	Engage with a range of science texts and begin to question the purposes for which these texts are constructed.
		L4.NS.4b	Explore various aspects of an issue and make decisions about possible actions.
Classifying Rocks	8	L4.PE.1a	Develop an understanding that water, air, rocks and soil, and life forms make up our planet and recognise that these are also Earth's resources.
		L4.NS.1b	Identify ways in which scientists work together and provide evidence to support their ideas.
		L4.NS.2b	Ask questions, find evidence, explore simple models, and carry out appropriate investigations to develop simple explanations.
		L4.NS.3a	Begin to use a range of scientific symbols, conventions, and vocabulary.
		L4.NS.4b	Explore various aspects of an issue and make decisions about possible actions.
Organization of Organisms	8	L4.LW.3a	Begin to group plants, animals, and other living things into science-based classifications.
		L4.NS.1b	Identify ways in which scientists work together and provide evidence to support their ideas.
		L4.NS.2b	Ask questions, find evidence, explore simple models, and carry out appropriate investigations to develop simple explanations.
		L4.NS.3b	Engage with a range of science texts and begin to question the purposes for which these texts are constructed.
		L4.NS.4b	Explore various aspects of an issue and make decisions about possible actions.
Mitosis	8	L4.LW.1a	Recognise that there are life processes common to all living things and that these occur in different ways.
		L4.NS.1b	Identify ways in which scientists work together and provide evidence to support their ideas.
		L4.NS.2b	Ask questions, find evidence, explore simple models, and carry out appropriate investigations to develop simple explanations.
		L4.NS.3a	Begin to use a range of scientific symbols, conventions, and vocabulary.
		L4.NS.4a	Use their growing science knowledge when considering issues of concern to them.
Structure of Matter and Heat	8	L4.MW.1a	Group materials in different ways, based on the observations and measurements of the characteristic chemical and physical properties of a range of different materials.



		L4.MW.1b	Compare chemical and physical changes.
		L4.MW.2a	Begin to develop an understanding of the particle nature of matter and use this to explain observed changes.
		L4.MW.3a	Relate the observed, characteristic chemical and physical properties of a range of different materials to technological uses and natural processes.
		L4.NS.1b	Identify ways in which scientists work together and provide evidence to support their ideas.
		L4.NS.2b	Ask questions, find evidence, explore simple models, and carry out appropriate investigations to develop simple explanations.
		L4.NS.3a	Begin to use a range of scientific symbols, conventions, and vocabulary.
		L4.NS.4b	Explore various aspects of an issue and make decisions about possible actions.
Chemical Properties and Interactions	8	L4.MW.1a	Group materials in different ways, based on the observations and measurements of the characteristic chemical and physical properties of a range of different materials.
		L4.MW.1b	Compare chemical and physical changes.
		L4.MW.2a	Begin to develop an understanding of the particle nature of matter and use this to explain observed changes.
		L4.MW.3a	Relate the observed, characteristic chemical and physical properties of a range of different materials to technological uses and natural processes.
		L4.NS.1a	Appreciate that science is a way of explaining the world and that science knowledge changes over time.
		L4.NS.2a	Build on prior experiences, working together to share and examine their own and others' knowledge.
		L4.NS.2b	Ask questions, find evidence, explore simple models, and carry out appropriate investigations to develop simple explanations.
		L4.NS.3a	Begin to use a range of scientific symbols, conventions, and vocabulary.
		L4.NS.4a	Use their growing science knowledge when considering issues of concern to them.



Changes in Energy on the Molecular Level	8	L4.MW.1b	Compare chemical and physical changes.
		L4.MW.2a	Begin to develop an understanding of the particle nature of matter and use this to explain observed changes.
		L4.NS.1a	Appreciate that science is a way of explaining the world and that science knowledge changes over time.
		L4.NS.1b	Identify ways in which scientists work together and provide evidence to support their ideas.
		L4.NS.2a	Build on prior experiences, working together to share and examine their own and others' knowledge.
		L4.NS.3b	Engage with a range of science texts and begin to question the purposes for which these texts are constructed.
		L4.NS.4a	Use their growing science knowledge when considering issues of concern to them.
Energy Transfer	8	L4.PW.1a	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 non-contact) on the motion of objects; identify and describe everyday examples of sources of energy, forms of energy, and energy transformations.
		L4.NS.1a	Appreciate that science is a way of explaining the world and that science knowledge changes over time.
		L4.NS.1b	Identify ways in which scientists work together and provide evidence to support their ideas.
		L4.NS.2a	Build on prior experiences, working together to share and examine their own and others' knowledge.
		L4.NS.2b	Ask questions, find evidence, explore simple models, and carry out appropriate investigations to develop simple explanations.
		L4.NS.3b	Engage with a range of science texts and begin to question the purposes for which these texts are constructed.
		L4.NS.4b	Explore various aspects of an issue and make decisions about possible actions.
What Are Cells?	8	L4.LW.1a	Recognise that there are life processes common to all living things and that these occur in different ways.



		L4.NS.1b	Identify ways in which scientists work together and provide evidence to support their ideas.
		L4.NS.2b	Ask questions, find evidence, explore simple models, and carry out appropriate investigations to develop simple explanations.
		L4.NS.3a	Begin to use a range of scientific symbols, conventions, and vocabulary.
		L4.NS.4b	Explore various aspects of an issue and make decisions about possible actions.
Anatomy of a Cell	8	L4.LW.1a	Recognise that there are life processes common to all living things and that these occur in different ways.
		L4.NS.1b	Identify ways in which scientists work together and provide evidence to support their ideas.
		L4.NS.2b	Ask questions, find evidence, explore simple models, and carry out appropriate investigations to develop simple explanations.
		L4.NS.3a	Begin to use a range of scientific symbols, conventions, and vocabulary.
		L4.NS.4b	Explore various aspects of an issue and make decisions about possible actions.
		L4.LW.3a	Begin to group plants, animals, and other living things into science-based classifications.
Bodies and Systems	8	L4.LW.1a	Recognise that there are life processes common to all living things and that these occur in different ways.
		L4.LW.3a	Begin to group plants, animals, and other living things into science-based classifications.
		L4.NS.2a	Build on prior experiences, working together to share and examine their own and others' knowledge.
		L4.NS.3b	Engage with a range of science texts and begin to question the purposes for which these texts are constructed.
		L4.NS.1b	Identify ways in which scientists work together and provide evidence to support their ideas.
		L4.NS.4a	Use their growing science knowledge when considering issues of concern to them.



Reproduction and Variation	8	L4.LW.1a	Recognise that there are life processes common to all living things and that these occur in different ways.
		L4.LW.3b	Explore how the groups of living things we have in the world have changed over long periods of time and appreciate that some living things in New Zealand are quite different from living things in other areas of the world.
		L4.NS.1b	Identify ways in which scientists work together and provide evidence to support their ideas.
		L4.NS.2a	Build on prior experiences, working together to share and examine their own and others' knowledge.
		L4.NS.3a	Begin to use a range of scientific symbols, conventions, and vocabulary.
		L4.NS.4a	Use their growing science knowledge when considering issues of concern to them.



Module Name	Grade	Standard	Description
Chemical Reactions	9	L5.MW.1a	Investigate the chemical and physical properties of different groups of substances, for example, acids and bases, fuels, and metals.
		L5.MW.3a	Link the properties of different groups of substances to the way they are used in society or occur in nature.
		L5.NS.1a	Understand that scientists' investigations are informed by current scientific theories and aim to collect evidence that will be interpreted through processes of logical argument.
		L5.NS.2a	Develop and carry out more complex investigations, including using models.
		L5.NS.2c	Begin to evaluate the suitability of the investigative methods chosen.
		L5.NS.3a	Use a wider range of science vocabulary, symbols, and conventions.
		L5.NS.4a	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.
Acids and Bases	9	L5.MW.1a	Investigate the chemical and physical properties of different groups of substances, for example, acids and bases, fuels, and metals.
		L5.MW.3a	Link the properties of different groups of substances to the way they are used in society or occur in nature.
		L5.NS.1a	Understand that scientists' investigations are informed by current scientific theories and aim to collect evidence that will be interpreted through processes of logical argument.
		L5.NS.2a	Develop and carry out more complex investigations, including using models.
		L5.NS.3b	Apply their understandings of science to evaluate both popular and scientific texts (including visual and numerical literacy).
		L5.NS.4a	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.



Transfer of Heat and Electricity	9	L5.PW.1a	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.
		L5.PW.2a	Explore a technological or biological application of physics.
		L5.NS.1a	Understand that scientists' investigations are informed by current scientific theories and aim to collect evidence that will be interpreted through processes of logical argument.
		L5.NS.2a	Develop and carry out more complex investigations, including using models.
		L5.NS.2c	Begin to evaluate the suitability of the investigative methods chosen.
		L5.NS.3a	Use a wider range of science vocabulary, symbols, and conventions.
		L5.NS.4a	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.
Modeling Conservation of Matter	9	L5.MW.1a	Investigate the chemical and physical properties of different groups of substances, for example, acids and bases, fuels, and metals.
		L5.MW.2a	Describe the structure of the atoms of different elements.
		L5.MW.3a	Link the properties of different groups of substances to the way they are used in society or occur in nature.
		L5.NS.1a	Understand that scientists' investigations are informed by current scientific theories and aim to collect evidence that will be interpreted through processes of logical argument.
		L5.NS.2a	Develop and carry out more complex investigations, including using models.
		L5.NS.2b	Show an increasing awareness of the complexity of working scientifically, including recognition of multiple variables.
		L5.NS.3a	Use a wider range of science vocabulary, symbols, and conventions.
		L5.NS.4a	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.



Matter and Energy in Food Webs	9	L5.LW.1a	Identify the key structural features and functions involved in the life processes of plants and animals.
		L5.LW.2a	Investigate the interdependence of living things (including humans) in an ecosystem.
		L5.NS.1a	Understand that scientists' investigations are informed by current scientific theories and aim to collect evidence that will be interpreted through processes of logical argument.
		L5.NS.2a	Develop and carry out more complex investigations, including using models.
		L5.NS.2b	Show an increasing awareness of the complexity of working scientifically, including recognition of multiple variables.
		L5.NS.3a	Use a wider range of science vocabulary, symbols, and conventions.
		L5.NS.4a	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.
Geologic History of Earth	9	L5.PE.3a	Investigate the conditions on the planets and their moons, and the factors affecting them.
		L5.NS.1a	Understand that scientists' investigations are informed by current scientific theories and aim to collect evidence that will be interpreted through processes of logical argument.
		L5.NS.2a	Develop and carry out more complex investigations, including using models.
		L5.NS.3a	Use a wider range of science vocabulary, symbols, and conventions.
		L5.NS.4a	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.
Seafloor Spreading	9	L5.PE.1a	Investigate the composition, structure, and features of the geosphere, hydrosphere, and atmosphere.
		L5.PE.2a	Investigate how heat from the Sun, the Earth, and human activities is distributed around Earth by the geosphere, hydrosphere, and atmosphere.
		L5.NS.1a	Understand that scientists' investigations are informed by current scientific theories and aim to collect evidence that will be interpreted through processes of logical argument.
		L5.NS.2b	Show an increasing awareness of the complexity of working scientifically, including recognition of multiple variables.



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		L5.NS.3a	Use a wider range of science vocabulary, symbols, and conventions.
		L5.NS.4a	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.
Chemical Equilibrium	9	L5.MW.1a	Investigate the chemical and physical properties of different groups of substances, for example, acids and bases, fuels, and metals.
		L5.MW.3a	Link the properties of different groups of substances to the way they are used in society or occur in nature.
		L5.NS.1a	Understand that scientists' investigations are informed by current scientific theories and aim to collect evidence that will be interpreted through processes of logical argument.
		L5.NS.2a	Develop and carry out more complex investigations, including using models.
	1	L5.NS.3a	Use a wider range of science vocabulary, symbols, and conventions.
		L5.NS.4a	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.
Properties of Waves	9	L5.PW.1a	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.
		L5.PW.2a	Explore a technological or biological application of physics.
		L5.NS.1a	Understand that scientists' investigations are informed by current scientific theories and aim to collect evidence that will be interpreted through processes of logical argument.
		L5.NS.2a	Develop and carry out more complex investigations, including using models.
		L5.NS.2c	Begin to evaluate the suitability of the investigative methods chosen.
		L5.NS.3a	Use a wider range of science vocabulary, symbols, and conventions.



		L5.NS.4a	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.
Wave Model vs. Particle Model	9	L5.PW.1a	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.
		L5.PW.2a	Explore a technological or biological application of physics.
		L5.NS.1a	Understand that scientists' investigations are informed by current scientific theories and aim to collect evidence that will be interpreted through processes of logical argument.
		L5.NS.2b	Show an increasing awareness of the complexity of working scientifically, including recognition of multiple variables.
		L5.NS.3b	Apply their understandings of science to evaluate both popular and scientific texts (including visual and numerical literacy).
		L5.NS.4a	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.
The Dynamic Nature of Ecosystems	9	L5.LW.1a	Identify the key structural features and functions involved in the life processes of plants and animals.
		L5.LW.2a	Investigate the interdependence of living things (including humans) in an ecosystem.
		L5.NS.1a	Understand that scientists' investigations are informed by current scientific theories and aim to collect evidence that will be interpreted through processes of logical argument.
		L5.NS.2a	Develop and carry out more complex investigations, including using models.
		L5.NS.2c	Begin to evaluate the suitability of the investigative methods chosen.
		L5.NS.3b	Apply their understandings of science to evaluate both popular and scientific texts (including visual and numerical literacy).
		L5.NS.4a	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.



Atomic Structure and Bonding	9	L5.MW.2a	Describe the structure of the atoms of different elements.
		L5.MW.2b	Distinguish between an element and a compound, a pure substance and a mixture at particle level.
		L5.MW.3a	Link the properties of different groups of substances to the way they are used in society or occur in nature.
		L5.NS.1a	Understand that scientists' investigations are informed by current scientific theories and aim to collect evidence that will be interpreted through processes of logical argument.
		L5.NS.2a	Develop and carry out more complex investigations, including using models.
		L5.NS.3a	Use a wider range of science vocabulary, symbols, and conventions.
		L5.NS.4a	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.
		L5.MW.1b	Distinguish between pure substances and mixtures and between elements and compounds.



Module Name	Grade	Standard	Description
Natural Selection and Populations	10	L5.LW.1a	Identify the key structural features and functions involved in the life processes of plants and animals.
		L5.LW.2a	Investigate the interdependence of living things (including humans) in an ecosystem.
		L5.LW.3a	Describe the basic processes by which genetic information is passed from one generation to the next.
		L5.NS.1a	Understand that scientists' investigations are informed by current scientific theories and aim to collect evidence that will be interpreted through processes of logical argument.
		L5.NS.2a	Develop and carry out more complex investigations, including using models.
		L5.NS.2b	Show an increasing awareness of the complexity of working scientifically, including recognition of multiple variables.
		L5.NS.2c	Begin to evaluate the suitability of the investigative methods chosen.
		L5.NS.3b	Apply their understandings of science to evaluate both popular and scientific texts (including visual and numerical literacy).
		L5.NS.4a	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.
Changes in Climate 10	10	L5.PE.2a	Investigate how heat from the Sun, the Earth, and human activities is distributed around Earth by the geosphere, hydrosphere, and atmosphere.
		L5.PE.3a	Investigate the conditions on the planets and their moons, and the factors affecting them.
		L5.NS.1a	Understand that scientists' investigations are informed by current scientific theories and aim to collect evidence that will be interpreted through processes of logical argument.
		L5.NS.2b	Show an increasing awareness of the complexity of working scientifically, including recognition of multiple variables.
		L5.NS.2c	Begin to evaluate the suitability of the investigative methods chosen.
		L5.NS.3b	Apply their understandings of science to evaluate both popular and scientific texts (including visual and numerical literacy).



		L5.NS.4a	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.
Newton's Third Law of Motion	10	L5.PW.1a	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.
		L5.PW.2a	Explore a technological or biological application of physics.
		L5.NS.1a	Understand that scientists' investigations are informed by current scientific theories and aim to collect evidence that will be interpreted through processes of logical argument.
		L5.NS.2a	Develop and carry out more complex investigations, including using models.
		L5.NS.2c	Begin to evaluate the suitability of the investigative methods chosen.
		L5.NS.3a	Use a wider range of science vocabulary, symbols, and conventions.
		L5.NS.4a	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.
Inheritance	10	L5.LW.3a	Describe the basic processes by which genetic information is passed from one generation to the next.
		L5.NS.1a	Understand that scientists' investigations are informed by current scientific theories and aim to collect evidence that will be interpreted through processes of logical argument.
		L5.NS.2b	Show an increasing awareness of the complexity of working scientifically, including recognition of multiple variables.
		L5.NS.3b	Apply their understandings of science to evaluate both popular and scientific texts (including visual and numerical literacy).
		L5.NS.4a	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.



Artificial Selection	10	L5.LW.1b	Describe the organisation of life at the cellular level.
		L5.LW.3a	Describe the basic processes by which genetic information is passed from one generation to the next.
		L5.NS.1a	Understand that scientists' investigations are informed by current scientific theories and aim to collect evidence that will be interpreted through processes of logical argument.
		L5.NS.2b	Show an increasing awareness of the complexity of working scientifically, including recognition of multiple variables.
		L5.NS.3b	Apply their understandings of science to evaluate both popular and scientific texts (including visual and numerical literacy).
		L5.NS.4a	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.
Periodic Table and Trends	10	L5.MW.2a	Describe the structure of the atoms of different elements.
		L5.MW.2b	Distinguish between an element and a compound, a pure substance and a mixture at particle level.
		L5.MW.3a	Link the properties of different groups of substances to the way they are used in society or occur in nature.
		L5.NS.1a	Understand that scientists' investigations are informed by current scientific theories and aim to collect evidence that will be interpreted through processes of logical argument.
		L5.NS.2b	Show an increasing awareness of the complexity of working scientifically, including recognition of multiple variables.
		L5.NS.3a	Use a wider range of science vocabulary, symbols, and conventions.
		L5.NS.4a	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.
Reaction Rates	10	L5.MW.1a	Investigate the chemical and physical properties of different groups of substances, for example, acids and bases, fuels, and metals.
		L5.NS.1a	Understand that scientists' investigations are informed by current scientific theories and aim to collect evidence that will be interpreted through processes of logical argument.



	L5.NS.2a	Develop and carry out more complex investigations, including using models.	
		L5.NS.3a	Use a wider range of science vocabulary, symbols, and conventions.
		L5.NS.3b	Apply their understandings of science to evaluate both popular and scientific texts (including visual and numerical literacy).
		L5.NS.4a	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.
Newton's Second Law of Motion	10	L5.PW.1a	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.
		L5.PW.2a	Explore a technological or biological application of physics.
		L5.NS.1a	Understand that scientists' investigations are informed by current scientific theories and aim to collect evidence that will be interpreted through processes of logical argument.
		L5.NS.2a	Develop and carry out more complex investigations, including using models.
		L5.NS.2c	Begin to evaluate the suitability of the investigative methods chosen.
		L5.NS.3a	Use a wider range of science vocabulary, symbols, and conventions.
		L5.NS.4a	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.
Variation of Traits	10	L5.LW.3a	Describe the basic processes by which genetic information is passed from one generation to the next.
		L5.NS.1a	Understand that scientists' investigations are informed by current scientific theories and aim to collect evidence that will be interpreted through processes of logical argument.
		L5.NS.2a	Develop and carry out more complex investigations, including using models.
		L5.NS.2b	Show an increasing awareness of the complexity of working scientifically, including recognition of multiple variables.



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		L5.NS.3a	Use a wider range of science vocabulary, symbols, and conventions.
		L5.NS.3b	Apply their understandings of science to evaluate both popular and scientific texts (including visual and numerical literacy).
		L5.NS.4a	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.
Evidence of Common Ancestry	10	L5.LW.3a	Describe the basic processes by which genetic information is passed from one generation to the next.
		L5.NS.1a	Understand that scientists' investigations are informed by current scientific theories and aim to collect evidence that will be interpreted through processes of logical argument.
		L5.NS.2b	Show an increasing awareness of the complexity of working scientifically, including recognition of multiple variables.
		L5.NS.3a	Use a wider range of science vocabulary, symbols, and conventions.
		L5.NS.3b	Apply their understandings of science to evaluate both popular and scientific texts (including visual and numerical literacy).
		L5.NS.4a	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.
The Big Bang Theory	10	L5.PE.3a	Investigate the conditions on the planets and their moons, and the factors affecting them.
		L5.NS.1a	Understand that scientists' investigations are informed by current scientific theories and aim to collect evidence that will be interpreted through processes of logical argument.
		L5.NS.2a	Develop and carry out more complex investigations, including using models.
		L5.NS.2b	Show an increasing awareness of the complexity of working scientifically, including recognition of multiple variables.
		L5.NS.3b	Apply their understandings of science to evaluate both popular and scientific texts (including visual and numerical literacy).
		L5.NS.4a	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.



Rising Carbon Dioxide Concentrations	10	L5.PE.1a	Investigate the composition, structure, and features of the geosphere, hydrosphere, and atmosphere.
		L5.PE.2a	Investigate how heat from the Sun, the Earth, and human activities is distributed around Earth by the geosphere, hydrosphere, and atmosphere.
		L5.PE.3a	Investigate the conditions on the planets and their moons, and the factors affecting them.
		L5.NS.1a	Understand that scientists' investigations are informed by current scientific theories and aim to collect evidence that will be interpreted through processes of logical argument.
		L5.NS.2b	Show an increasing awareness of the complexity of working scientifically, including recognition of multiple variables.
		L5.NS.2c	Begin to evaluate the suitability of the investigative methods chosen.
		L5.NS.3b	Apply their understandings of science to evaluate both popular and scientific texts (including visual and numerical literacy).
		L5.NS.4a	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.
Human Activities and Natural Systems	10	L5.PE.2a	Investigate how heat from the Sun, the Earth, and human activities is distributed around Earth by the geosphere, hydrosphere, and atmosphere.
		L5.NS.1a	Understand that scientists' investigations are informed by current scientific theories and aim to collect evidence that will be interpreted through processes of logical argument.
		L5.NS.2b	Show an increasing awareness of the complexity of working scientifically, including recognition of multiple variables.
		L5.NS.2c	Begin to evaluate the suitability of the investigative methods chosen.
		L5.NS.3b	Apply their understandings of science to evaluate both popular and scientific texts (including visual and numerical literacy).
		L5.NS.4a	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.



Ocean, Atmosphere, and Biosphere Interactions	10	L5.PE.1a	Investigate the composition, structure, and features of the geosphere, hydrosphere, and atmosphere.
		L5.PE.2a	Investigate how heat from the Sun, the Earth, and human activities is distributed around Earth by the geosphere, hydrosphere, and atmosphere.
		L5.NS.1a	Understand that scientists' investigations are informed by current scientific theories and aim to collect evidence that will be interpreted through processes of logical argument.
		L5.NS.2a	Develop and carry out more complex investigations, including using models.
		L5.NS.2b	Show an increasing awareness of the complexity of working scientifically, including recognition of multiple variables.
		L5.NS.3b	Apply their understandings of science to evaluate both popular and scientific texts (including visual and numerical literacy).
		L5.NS.4a	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.



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