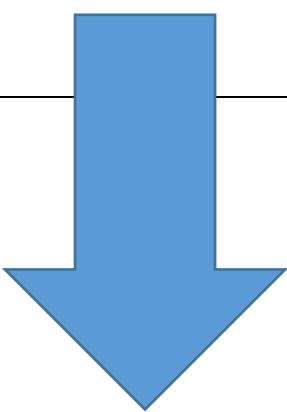




WHERE IN THE WORLD ARE OUR RAINFORESTS? DURATION: 9 WEEKS

Learning Area	Content Descriptors explicitly addressed	Achievement Standards addressed
Science	<p>Data and information</p> <ol style="list-style-type: none"> 1. Collect and record relevant geographical data and information from the field and other sources (VCGGC074) 2. Interpret maps and other geographical data and information to develop identifications, descriptions, explanations and conclusions, using geographical terminology including simple grid references, compass direction and distance (VCGGC076) <p>Place, space and interconnection</p> <ol style="list-style-type: none"> 1. Identify and describe the characteristics of places in different locations at a range of scales (VCGGC071) 2. Identify and describe locations and spatial distributions and patterns (VCGGC072) 3. Identify and explain the interconnections within places and between places (VCGGC073) <p>Diversity and significance of places and environments</p> <ol style="list-style-type: none"> 1. Location of major countries of Africa and South America in relation to Australia and their major characteristics including the types of vegetation and native animals in at least two countries for both continents (VCGGK077) 2. Location of Australia's neighbouring countries and the diverse characteristics of their places (VCGGK078) 3. Representation of Australia as states and territories, and Australia's major natural and human characteristics (VCGGK079) 4. Main climates of the world and the similarities and differences between the climates of different places (VCGGK081) 5. Types of natural vegetation and the significance of vegetation to the environment, the importance of environments to animals and people, and different views on how they can be protected; the use and management of natural resources and waste, and different views on how to do this sustainably (VCGGK082) 6. Similarities and differences in individuals' and groups' feelings and perceptions about places, and how they influence views about the protection of these places (VCGGK083) 7. Similarities and differences between places in terms of their type of settlement, demographic characteristics and the lives of the people who live there (VCGGK084) 8. 	<p>Geography Level Description</p> <p>In Levels 3 and 4, the curriculum continues to develop students' mental map of the world and their understanding of place through examining the major characteristics of Australia, Australia's neighbouring countries and Africa and South America. The concept of place is developed by examining the similarities and differences between places within and outside Australia. Students use the geographic concepts of environment and space to examine the similarities and differences between places in terms of the climate and the types of settlements. These comparisons should continue to be made at the scale of the local place.</p> <p>Students consider the significance of places and environments. They explore how feelings and perceptions form the basis of actions to protect places and environments that are of special significance. They learn that sustainability is about the ongoing capacity of the environment to sustain human life and wellbeing and means more than the careful use of resources and the safe management of waste and they develop their understanding of the concept by exploring some of the other functions of the environment that support their lives and the lives of other living things. They are introduced to different views on how sustainability can be achieved.</p> <p>By the end of Level 4, students identify and describe spatial characteristics, and the characteristics of places and environments at a range of scales. They identify and explain interconnections and identify and describe locations, including Australia's neighbouring countries and Africa and South America.</p> <p>They identify responses to a geographical challenge and the expected effects.</p> <p>They collect and record relevant geographical data and information and represent data and information in tables, simple graphs and maps of appropriate scale that conform to cartographic conventions. They interpret data and information, and use geographical terminology, to identify and to develop descriptions, explanations and conclusions.</p> <p>Investigate a range of problem-solving strategies, including brainstorming, identifying, comparing and selecting options, and developing and testing hypotheses</p> <p>Explore a range of digital systems with peripheral devices for different purposes, and transmit different types of data (VCDTDS019)</p>
Critical & Creative Thinking	<p>Explore distinctions when organising and sorting information and ideas from a range of sources. Investigate a range of problem solving strategies, including brainstorming, identifying, comparing and selecting options, and developing and testing hypotheses.</p> <p><u>Questions and possibilities</u> Construct and use open and closed questions for different purposes</p> <p><u>Reasoning</u> Explore distinctions when organising and sorting information and ideas from a range of sources.</p> <p><u>Meta-cognition</u> Investigate a range of problem solving strategies, including brainstorming, identifying, comparing and selecting options, and developing and testing hypotheses.</p>	<p>Students explain how to construct open and closed questions and use them for different purposes. Students use concrete and pictorial models to facilitate thinking, including a range of visualisation strategies. They practice and apply an increased range of learning strategies, including visualisation, note-taking, peer instruction and incubation. Students select and apply a range of problem-solving strategies.</p>
Ethical Capability Content Descriptions	<ol style="list-style-type: none"> 1. Explore the contested meaning of concepts including fairness and harm and how they can seem to differ in different situations (VCECU004) 2. Explore the extent to which particular acts might be regarded by different people as good or bad, right or wrong, better or worse, and explain why (VCECU005) 3. Discuss the ways to identify ethical considerations in a range of problems (VCECU006) 	<p>In Levels 3 and 4, the curriculum focuses on developing the knowledge, skills and understandings to evaluate particular acts, and to identify and critically respond to ethical problems. Students extend their vocabulary and begin to reflect on means and ends. Students develop an understanding that particular acts and their outcomes can be valued differently by different people, and extend their understanding of factors that may affect decision-making and actions.</p>



Unit Overview: Key Inquiry Question/s: Key questions: <ul style="list-style-type: none"> • How and why are places similar and different? • What would it be like to live in a neighbouring country? • How does the environment support the lives of people and other living things? • How can people use places and environments more sustainably? <p>1. What the 6 tropical rain forests? Where are they located?</p> <p>2. What are three layers of the rain forest. Describe each of the layers. What makes them unique?</p> <p>3. What is the climate of the rainforest?</p> <p>4. What are some of the animals that live in the rainforest? Give at least 3 examples and a fact about them.</p> <p>5. What are some of the plants that grow in the rainforest? Give at least 3 examples and a fact about them.</p> <p>6. What are some problems that the rainforest face? Name at least 3 problems and explain how they are affecting the ecosystem.</p> <p>7. What are some ways that humans can help and spread awareness about the issues that the rainforests face?</p>		<p>How will you assess students' progress toward the achievement of the standards?</p> <ol style="list-style-type: none"> 1. Using maps 2. Identifying the features of the rainforest 3. Impact on the environmental factors <p>Students will demonstrate their understanding of rainforest through a produced piece.</p> <p>-Independent research -Internet research -Use of texts -Powerpoint feature -Note taking</p>	
Pre-assessment: Information Reports Persuasive -	Ongoing formative assessment: Science Journal (integrated book) Reading Journal	Summative assessment: (linked to Literacy) Information Reports Persuasive –	
Special events/dates and experiences:			
Websites	<p>A Journey Through the Rainforest This is a journal of someone's adventure through the forest.</p> <p>All About RAINFORESTS</p> <p>Amazon Interactive Find online interactive games & activities.</p> <p>Celebrate Earth Day - Everyday</p> <p>KID'S Quest Adventures in the rainforest This site includes facts, activities & more.</p> <p>Rainforest Action Network</p> <p>Rainforest Alliance This site contains various rainforest information and additional links.</p> <p>Rainforests of the World This site takes you to all of the rainforests throughout the world.</p> <p>River of Venom - unresponsive A science mystery set in the Amazon rainforest. Test your scientific sleuthing skills.</p>		
English text-type:	The Kapok Tree Persuasive Text	Where the Forest Meets the Sea Information Report	Welcome to the Rainforest
Topic Specific Vocabulary:	rainforest, rainfall, tropical, temperate, monsoon trough, climate, species, plants, insects, microorganisms, undiscovered, natural medicines, oxygen, carbon dioxide, photosynthesis, undergrowth, sunlight, leaf canopy, vines, shrubs, trees, jungle, fungi, forest floor, understory layer, canopy layer, emergent layer, decay, soil, timber, logging, deforestation, plantations, ecosystem, uncontacted tribes		
Indigenous Perspective	Intercultural understanding is particularly evident in Science as a Human Endeavour. Students learn about the influence of people from a variety of cultures on the development of scientific understanding. <ul style="list-style-type: none"> • 'Cultural perspectives' opportunities are highlighted where relevant • Important contributions made to science by people from a range of cultures are highlighted where relevant. 		

Tune In	Target Teach	Try Out	Tune Up	Take Off	Tie Together
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Week	Learning Intention & Success Criteria/Activity	Assessment
Week 1 Identify the equator and tropics of	Locating Rainforests on world map Tell the class we will be studying tropical rainforests. Ask them if they know anything about the rainforests? What are they like? Where in the world are they? What grows there? Have any chn seen a real rainforest or seen one on TV? Encourage chn to share information & express what they already know. Show chn a globe. Ask a child to come & identify the equator. Show it on a world map. It is a line on the map/globe which runs through the centre of the world. Look at some countries that lie on or are crossed by the equator. Ask chn to name them. What is the weather like here? It is hot - a tropical climate. Then ask a chd to look at the globe and identify the lines above and below the equator - the tropic of Cancer & the tropic of Capricorn. Explain that these lines are like the equator - they are not really there, they are on maps to identify areas and climatic zones.	Diagnostic assessment: Elicit what students already know and understand about: <ul style="list-style-type: none"> • Rainforests - What are they like? Where in the world are they? What grows there?

<p>Cancer & Capricorn and that tropical rainforests are situated between the tropics.</p> <p>Name countries which contain tropical rainforests and find out some facts about them.</p> <p>Identify different global climatic zones; describe the climate in the tropics.</p>	<p>The area between these lines - point it out on the globe - is known as the tropics. Use the world map and ask some chn to come out and point out countries that lie within or cross the tropics. These are countries that may have tropical rainforests as the tropical rainforest areas of the world lie between the tropics - hence the name! A long time ago most of this land between the tropics was covered in tropical rainforest but now the areas are much smaller.</p> <p>Easy/Medium/Hard</p> <p>Give chn a world map with the areas of tropical rainforest (<i>session resources</i>). Chn edge round these in orange so they stand out. They should label the equator and the tropics of Cancer and Capricorn.</p> <p>Extension: Chn label 7 continents and oceans and colour the oceans in blue.</p> <p>Ask chn to bring their maps to the carpet. Show that all the rainforests are between the tropic of Cancer & tropic of Capricorn. Identify the continents that have tropical rainforests. Have any chn been there? What are they like?</p> <p>Tropical Rainforest Countries Sit chn with their maps. Show them a large map of the world. Do any chn know any specific countries where rainforests are? When chn make suggestions check these by looking at a world map or, if possible, a detailed picture in a good chn's atlas (e.g. World Atlas). Check: Brazil, Bolivia, Australia, Malaysia, Indonesia, New Guinea, Cameroon, Gabon, Congo, Madagascar, etc. Look carefully at these countries and where they are. Obviously they are between the tropic of Capricorn & Cancer, and some lie on the equator. List some of the country names on the board. Explain to chn they are going to work in pairs to find out more about these places - what is the weather like there? How much rainforest is there? What is the capital city of the country called? Brainstorm some more questions as a class of what you might be able to find out. E.g. Population, religion, famous for, food, etc.</p> <p>Could use interactive map at http://www.oddizzi.com/.</p> <p>Easy</p> <p>Chn label the countries containing tropical rainforests using a chn's atlas.</p> <p>Medium/Hard</p> <p>Chn work in pairs. They choose a country and try to find out as much as they can about that country and the rainforest it contains. They should use a chn's atlas, a range of non-fiction texts, CD Rom & the internet.</p> <p>Get chn to share their information. Put chn in groups if more than one pair has found out about a specific country and ask them what they can tell the class about that place. Note how the climate is similar in all the countries.</p> <p>Rainforest Climate</p> <p>Ask a child to use a globe to show the area of the world known as 'the tropics'. They should identify the band running around the centre of the world between Tropic of Cancer & Tropic of Capricorn. Ask chn to identify the tropics. Confirm that these lines are not really there - they exist only on maps to identify different areas of the world. Chn tell you what they know about global climates - ask a child to identify Arctic circle & Antarctic. Which is which? Arctic is in north, Antarctic in south. Show these areas on a world map as well. What is the weather like here? Very cold, it is dark for 6 months of the year, it snows, freezes, etc. Use a big balloon as the sun and ask a child to hold it on the other side of the room. Demonstrate by <u>tilting</u> the globe how the poles are sometimes very far from the sun and sometimes slightly nearer. This is why they have long dark winters and long light summers. Next identify areas between the Arctic circle & Tropic of Cancer and Antarctic & Tropic of Capricorn. Tell chn these areas are known as temperate climate zones. Find Australia in this climatic zone. Discuss what our weather is like: very changeable: cold in winter, warmer in summer. Identify other countries in this zone. Explain how the closer to the tropics you get, the warmer the weather gets. Ask chn who have been to overseas? What is the weather like there? Then look at the tropical zone. Explain to chn they will be describing what the weather is like there.</p> <p>Easy/Medium/Hard</p> <p>Chn work in pairs to read tropical rainforest climatic info & make notes on key features of the weather in these areas. Explain that chn will be making a weather forecast for a country in this area so they should practise doing a forecast! They make props of clouds, suns, etc, to stick on the map with blue-tac®. Watch some weather reports as examples for the students.</p> <p>https://www.youtube.com/watch?v=hj1MG3e6Y1M https://www.youtube.com/watch?v=6dEpl75FOeo</p> <p>Use the world map for a backdrop and ask chn to come and give a weather forecast for a tropical area of the world - e.g. the Amazon or Indonesia. Chn should use their acting skills. Point out that there is little annual variation.</p>	<p>Ask geographical questions.</p> <p>Use appropriate geographical vocabulary.</p>
<p>Week 2</p> <p>Find out about 4 the layers of rainforest Research how rainforest creatures are adapted to their habitat</p>	<p>Layers of the Rainforest</p> <p>Talk to chn about what they already know about rainforests, their climate, location, etc. Explain that rainforests are perhaps the most complicated ecosystems on the earth, they are very old, were there thousands of years ago in dinosaur times (remind them of the book Where the Forest Meets the Sea). They contain the largest variety of plant & animal species anywhere on earth. Scientists are discovering new ones all the time. There are 50-200 different types of tree in 1 hectare of rainforest!</p> <p>https://www.youtube.com/watch?v=-Ax6zISzyNM Use this short video OR Use a good non-fiction text to show chn a picture of the jungle (preferably with the 4 layers labelled, e.g. DK Rainforest p. Forest layers). Begin at the top & explain what each layer is called & why Provide the chn with a brief explanation of how the layers vary but explain to them they will find out about one of the layers & tell the rest of the class about it. Using a large photo of the rainforest ask the chn to identify & briefly explain about each of the 4 layers. Discuss how the climate varies at each layer - in the emergent top layer it is coolest & windy; then in the canopy layer it gets the most rain so is also cooler; these tree tops get a lot of sunshine so as we go down to the understory it becomes hotter, darker & more humid; & then the forest floor is even hotter, darker & most humid of all! How do the chn think this, & other factors such as height, will affect the wildlife that lives in each layer? Do the same animals live in every layer? Do some animals move from different layers? Some animals always stay in the layer they are born - why? Explain to chn they are going to find out about different animals & where in the rainforest they live. They need to explain why that particular animal lives where it does - how is that layer suited to its needs?</p> <p>Draw the layers of the rainforest - Use resource worksheet in google drive.</p>	<p>Formative assessment Monitor students' developing understanding of concepts taught.</p>
<p>Week 3</p>	<p>Create a whole class wall display of the layers of the Daintree Rainforest. Students research types of animals and vegetation native to the rainforest and/or layers.</p> <p>Class resources:</p> <ul style="list-style-type: none"> - Crepe paper - paper - print out of animals/vegetation 	
<p>Week 4</p> <p>Create a reptile using a new technique of dripping.</p>	<p>Lemon Juice Frogs Snakes & Other Reptiles</p> <p>Having looked at the hundreds of different creatures that live in the rainforest, ask chn to name some of the species - that is the groups we put animals/creatures into to classify them: mammals, insects, birds, reptiles, fish. Write 'reptiles' on the board. Who can name some different types of reptile? List on the board: lizards, snakes, frogs, toads, crocodiles, alligators & turtles. What is a reptile? List some of their features on the board: cold blooded, lay eggs, scaly & have backbones & many snakes & frogs in the rainforest are also poisonous. Show some pictures of reptiles from the rainforest (<i>session resources</i> & non-fiction texts). Explain we will be drawing the outline of frogs & snakes & then painting them using a special technique to display round the classroom.</p>	<p>How to draw a tree frog- Art Hub YouTube drawing https://www.youtube.com/watch?v=9vm9N1c_elg</p>

<p>Learn about classification of vertebrates & identify features of reptiles.</p>	<p>Demonstrate to the chn how to draw simple frog shapes & twisted snake shapes on the board. The frogs should have a pear shaped body (the head is the thin end) with two bent legs at the front & longer bent legs at the back. They should cut out their reptile before painting it. Mix a colour to paint it using powder paint & water. Discuss appropriate colours - browns, greens, oranges, etc. Let it dry. Then show them how to drip lemon juice in spots over their reptile. Use a tissue to pat the lemon juice spots, lifting some of the paint, leaving brightly coloured dots. Easy/Medium/Hard Give chn a piece of A5 paper to draw their reptile. They should draw a large basic shape & cut this out. They then use powder paints to mix a colour & then colour wash the whole reptile. When it dries squeeze lemon juice into a pot & use a brush to gently drip the lemon juice in spots over the reptile. Use a tissue to pat dry.</p>	
<p>Week 5</p>	<p>Build Your Wild Self.</p> <ul style="list-style-type: none"> - Students build their wild self, selecting parts they think will improve their survival abilities. - For each body part they need to justify why it could help them. They need to select a habitat and justify why it would be best suited to their new features. - - Lesson Two: <p>Food Web - Goliath Bird Eating Spider</p> <ul style="list-style-type: none"> - Students will investigate the South American (Goliath) Bird Eating Spider. - Students create a food web for the Goliath Bird Eating Spider. Using a spider web template, place a Goliath Bird Eating Spider in the middle with all of its prey on the web. Place its predators around the outside of the web. - Use labels, pictures and supplied spider web template. - (In resource folder) <p>Project</p> <ul style="list-style-type: none"> - Deadly 60 / Documentary - During Literacy groups, students can research an animal for their Deadly 60/ - Documentary and create a factual poster - Related fact card (Wk3) 	
<p>Week 6</p>	<p>Project Deadly 60 / Documentary / News Report Students can work in small groups to create a short episode or documentary teaching their audience about an animal and or/food chain from one of the forests/rainforest studied throughout the unit. This may be an Australia Crocodile or a South American Snake etc. Students need to develop a rubric to be assessed. This will be recorded using netbooks or ipads.</p> <p>Student work towards recording and editing their presentations. Show students the functionality of movie maker and or imovie</p>	<p><i>Students evaluate the learning they have done.</i> Students list 3 new things they learnt, 2 things they found interesting and 1 question they still have.</p>
<p>Week 7 Understand that rainforest is being destroyed and that this is preventable.</p>	<p>Rainforests: Looking into deforestation Explain to chn what <u>deforestation</u> is, writing the term on the whiteboard. Look at the National Geographic website. If possible, watch the animations from NASA. Look at pictures from the website and also at information texts. Discuss why chn think it matters if we destroy the rainforest. Brainstorm some suggestions - plants will become extinct, animals will die, tribal peoples living in the rainforest will no longer have a home & will not be able to continue their way of life, the amount of forest in the world will be less & this affects global warming. Show a map of the tropical rainforest across the world, and discuss how different parts of this are under threat from different causes. Talk to chn about how the plants and animals that live there cannot survive outside this environment.</p>	<p>Ask chn to bring their maps to the carpet. Discuss how the world will look in twenty, or even ten years time, when half the rainforest has been destroyed.</p>
<p>Week 8 Understand that rainforest is being destroyed and that this is preventable.</p>	<p>Rainforests: Looking into deforestation Explain to chn what <u>deforestation</u> is, writing the term on the whiteboard. Look at the National Geographic website. If possible, watch the animations from NASA. Look at pictures from the website and also at information texts. Discuss why chn think it matters if we destroy the rainforest. Brainstorm some suggestions - plants will become extinct, animals will die, tribal peoples living in the rainforest will no longer have a home & will not be able to continue their way of life, the amount of forest in the world will be less & this affects global warming. Show a map of the tropical rainforest across the world, and discuss how different parts of this are under threat from different causes. Talk to chn about how the plants and animals that live there cannot survive outside this environment.</p>	<p>Ask chn to bring their maps to the carpet. Discuss how the world will look in twenty, or even ten years time, when half the rainforest has been destroyed.</p>
<p>Week 9</p>	<p>Celebration Students from all grades get together for a viewing of 'The Jungle Book' in the MPR.</p> <p>Consolidating concepts and prior learning. Complete any unfinished tasks/ work not covered</p>	<p>Students display their dioramas around the classroom. Silent vote on best in different categories (most realistic, best information, most creative etc)</p>

Attachments/Resources:

Reflection: