Science and Technology sample unit: What Should I Wear?	
Early Stage 1	Duration: 10 weeks
Term 3	Booragul Public School

Unit context

Students investigate ways daily and seasonal changes in our environment affect everyday life.

Target outcomes

Early Stage 1 **A student:**

STe-2VA demonstrates a willingness to engage responsibly with local, national and global issues relevant to their lives, and to shaping sustainable futures

STe-4WS explores their immediate surroundings by questioning, observing using their senses and communicating to share their observations and ideas

STe-7NE observes, using their senses, how daily and seasonal changes in the environment affect them and other living things

Ste-5WT uses a simple design process to produce solutions with identified purposes

Unit overview

In this unit, students will explore different seasons and their effect on everyday life. Students will investigate how some living things change according to the seasons and how natural disasters and weather phenomena can have powerful effects on communities. Students will explore the concept of weather prediction and forecasts and discuss the importance of these to daily life. Through the participation in hands on investigations, students will enhance their understanding of the aspects of weather and impacts on living things.

Content	Teaching and learning	Eval/Reg
STe-4WS *Students question and predict by;* *-responding to questions about familiar objects and events they are curious about in the natural and made environments.* *-making predictions resulting from their questions.* *Students plan and conduct investigations by;* *-sharing what they already know and how they could find out more about their questions relating to the natural and made environments* *-exploring and making observations by using their senses to gather information about objects and events in their immediate surroundings* *Students process and analyse data and information by;* *-engaging in discussions about observations and using drawings to represent ideas*	**WEATHER WALK** **1-2 Lessons** **Learning Objective:** *To identify what students know about different weather conditions and how weather is observed and recorded.* - Record responses on the Smart board. Prompt students with the following questions; • What types of weather do we have? • How does the weather change? • What does it look like? - Explain to students that the class will be going on a weather walk to observe the weather today. The teacher will use an iPad to collect images of today's weather. - Once, outdoors, find a space to sit. Ask students to verbalise what they can observe. - Discuss with students how the weather feels against their body, such as hot, cold, windy. - Prompt to verbalise any smells they can observe. - Return to the classroom and view the photographs on the class Smart board. - Create a word wall of words used to describe the weather they observed. - Ask students to create a drawing to represent today's weather and write sentence or words to accompany it (literacy focus). - Have students share their observations in circle time on the floor. Discuss the different between statements and questions during this time. Model the asking and recording of questions; • How can we find out what the weather is today? • How can the weather change? • Do you wear a jumper/coat every day? Why not? These questions will be used for referral later in the unit.	

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	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
Morning					
Afternoon					
Summary					

STe-7NE *describe how people respond to familiar changes in their environment, eg day and night and seasonal changes.* *- Identify how plants and animals respond to changes in the environment.*	**ADAPTING TO CHANGING CONDITIONS** **2 Lessons** **Learning Objective**- *Students will discuss suitable clothing depending on different weather conditions and design their own weatherproof outfit.* - Discuss and review the daily weather chart and reflect on the weather that has occurred in the past week. - Ask students if they changed what they wore to school on each of those days. - Identify different clothing needs and jointly create a class	

Ste-2VA *develop interest and positive, informed values and attitudes towards science and technology* *-recognise the importance and relevance of science and technology in their lives now and for their future* *Ste-5WT* *discuss the purpose and main features of what they need to produce and suggesting the materials they could use*	chart of clothing requirements for different weather conditions. Discuss why we need to change what we wear in response to the weather. Introduce the concept of seasons. Have students discuss what types of clothing they wear in each season and why. Provide students with a visual which shows which months belong to which season. - Show students images of children around the world living in different climates. Discuss the similarities and difference in the clothing they are wearing. - Have students complete the task sheet 'What will I wear today?' - Discuss what clothing is required to provide our bodies with protection during rainy weather. Explain to students that they will be designing a waterproof outfit. - Identify the things that will be required such as raincoat, hat, boots. Show students examples of waterproof clothing and discuss how it is made and the fabrics used in order to make it waterproof. - Generate ideas for students' own designs and draw them on the board. - Students will then design and draw their own waterproof outfit that would fit a teddy bear. - Have students participate in a share session in a circle where they present their designs and explain how it is waterproof and would keep teddy dry.	
STe-4WS *Students question and predict by;* *-responding to questions about familiar objects and events they are curious about in the natural and made environments.* *-making predictions resulting from their questions.* *Ste-2VA* *Students;* *-develop interest and positive, informed values*	**HUMAN/ANIMAL BEHAVIOUR AND WEATHER** **1-2 Lessons** **Learning Objective-** *Students will investigate the effects of weather on human and animal behaviours.* - Discuss the effects of weather. Explore foods eaten, feelings, leisure activities, outdoor/indoor activity, health (sunburn, colds hay fever), holidays. - Provide students with images of people in engaging in different activities in various weather conditions (swimming, skiing, outdoor ball games etc). - Have students to describe and draw a time where the weather impacted upon their health, feelings and leisure activities. Provide students with ideas such as having a cold in Winter, getting sunburnt in Summer, playing outdoor sports when it's sunny, having to stay inside when it's raining,	

and attitudes towards science and technology -recognise the importance and relevance of science and technology in their lives now and for their future	Allow students to discuss their experiences through share session in small, collaborative groups. - Discuss how animals change in response to weather conditions. Prompt students to think about how their own pets respond to storms, rain and heat. - Discuss why some animals shed hair in the hotter months and gain a thicker coat during Winter. Ask students to explain what they know about hibernation and jointly construct a class list of animals that hibernate. Discuss why these animals hibernate and show images of the animals listed. - Ask students to discuss how plants change in response to differing weather conditions. Provide students with images of healthy and unhealthy plants and discuss what plants need to survive. Prompt students to discuss what happens to a plant when left in the heat, without water and what happens to out grass and gardens after rain. Have students draw pictures of healthy and unhealthy plants and include what weather elements contributed to their condition (rain, heat, snow etc).	
STe-4WS *Students question and predict by;* *-responding to questions about familiar objects and events they are curious about in the natural and made environments.* *-making predictions resulting from their questions.*	**WEATHER OBSERVATION** **1 Lesson** **Learning Objective-** *Students will develop the ability to observe the entire sky in order to make predictions about weather conditions.* - Review the class weather chart and discuss what has been observed and recorded about the weather. - Prompt students to discuss where they look to collect observations about the day's weather. Introduce the concept of observing the entire sky when determining the weather. Explain the importance of not directly looking at the sun. - Take students outside and observe the sky. Focus on students' attention to words such as blue sky, grey sky, cloudy sky, dark clouds. Discuss how much cloud cover there is. Introduce some scientific terms to describe the clouds in the sky. The teacher will photograph as much of the sky as possible to gather images of the amount of cloud cover. - Return to class and view the images. Have students discuss how much cloud cover there was and the scientific words. Create a word bank of these words for students to use. - Introduce students to a table which records the amount of cloud cover and display it on the Smart board.	

- Ask students to draw a picture of the sky as they observed. Have students use words from the word bank to create captions for their pictures.

What the sky looks like	How much cloud cover	Science words

- The teacher will print photographs of the skill and add them to the weather word wall.

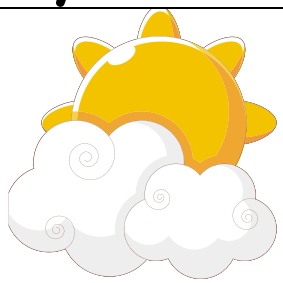
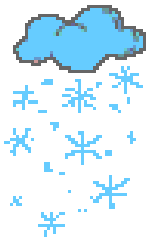
STe-4WS *Students question and predict by;* *-responding to questions about familiar objects and events they are curious about in the natural and made environments.* *-making predictions resulting from their questions.* *Students process and analyse data and information by;* *-engaging in discussions about observations and using drawings to represent ideas*	**WEATHER TOOLS** **1 Lesson** **Learning Objective-** *students will investigate tools used to record temperature and create their own weather recording tool.* *Have three weather cards prepared and laminated: warm, cool, hot.* - Ask students to describe today's weather. Prompt them to make suggestions about how todays' weather could be recorded. Introduce the word 'thermometer' and ask students to brainstorm what they know about this tool and where they may have seen one. Show students an example of a thermometer and explain how it records temperature. Lead a discussion about times in which students may have seen a thermometer in use (the doctors, school, home). - Make a line with a piece of string to create a temperature scale students can physically touch. Ask students where the cold weather card would be located on the temperature scale. Have one student hold the card at that end. Ask students which card would go at the other end, and which goes between hot and cold. Have students hold these cards in position. Have other students in the class locate themselves on the temperature scale, based on how they feel in response to weather scenarios provided. Eg; today it is cold and windy. There are clouds in the sky and the season is Winter. - Explain to students that they are going to make their own tool for recording weather. Provide students with a copy of 'our temperature tool' and discuss which colours would be used to represent hot, warm and cold. Discuss that what they are creating is their own thermometer. - The teacher will photograph student thermometers and add the photographs and new vocabulary used to the word wall.	
STe-4WS *Students question and predict by;* *-responding to questions about familiar objects and events they are curious about in the natural and made environments.* *-making predictions resulting from their questions.*	**THE EFFECTS OF WEATHER ON THE COMMUNITY** **Learning Objective-***Students will investigate the effects of major weather phenomena on communities.* **1-2 Lessons** - Lead a discussion about students' experience with extreme weather conditions. Discuss any impacts on their environment resulting from these. Ask students if they know how wind can cause damage to the local community. Show student images of the following weather phenomena; • Tsunamis • Floods • Heat waves	

Ste-2VA *Students;* *-develop interest and positive, informed values and attitudes towards science and technology* *-recognise the importance and relevance of science and technology in their lives now and for their future*	• Tropical cycles • Lamdslides • Earthquakes - Have students identify possible impacts upon the communities in which these weather conditions occur. Show students video examples of these on http://education.nationalgeographic.com.au/education/activity/extreme-weather-on-our-planet/?ar_a=1 - Discuss if communities can prepare this extreme weather. - Put students in small groups and allocate each of them a natural disaster. Have students devise a plan for how as a community they would respond and help each other in the case of one of these natural disasters. Students will then present this to the class and discuss. - Review what students have learnt about weather and recorded on the class weather chart. Have students independently create and acrostic poem about weather and read it to the class.	

Resources	**Assessment overview**
Lesson 1: - School map **Lesson 1 and 6:** - iPad to take photographs **Lesson 3:** - Adapting to changing weather conditions 'what will I wear today?' sheet. **Lesson 5:** - Weather observation lesson sky record sheet.	**Lesson 1:** Diagnostic Assessment- Find out what students already know and understand about the weather. **Lesson 2,3 & 4:** Formative Assessment- Monitor students' developing understanding and give feedback that extends their learning. **Lesson 5:** Summative Assessment- Look for evidence of the extent to which students have achieved the unit outcomes of observing, exploring and questioning different weather conditions.

LESSON 3

What will I wear today?

Weather	What will I wear?
 Hot and sunny	
 Rainy and cold	
 Cloudy	
 owing	

Lesson 3

My Waterproof Outfit

How it will keep Teddy dry

Lesson 7

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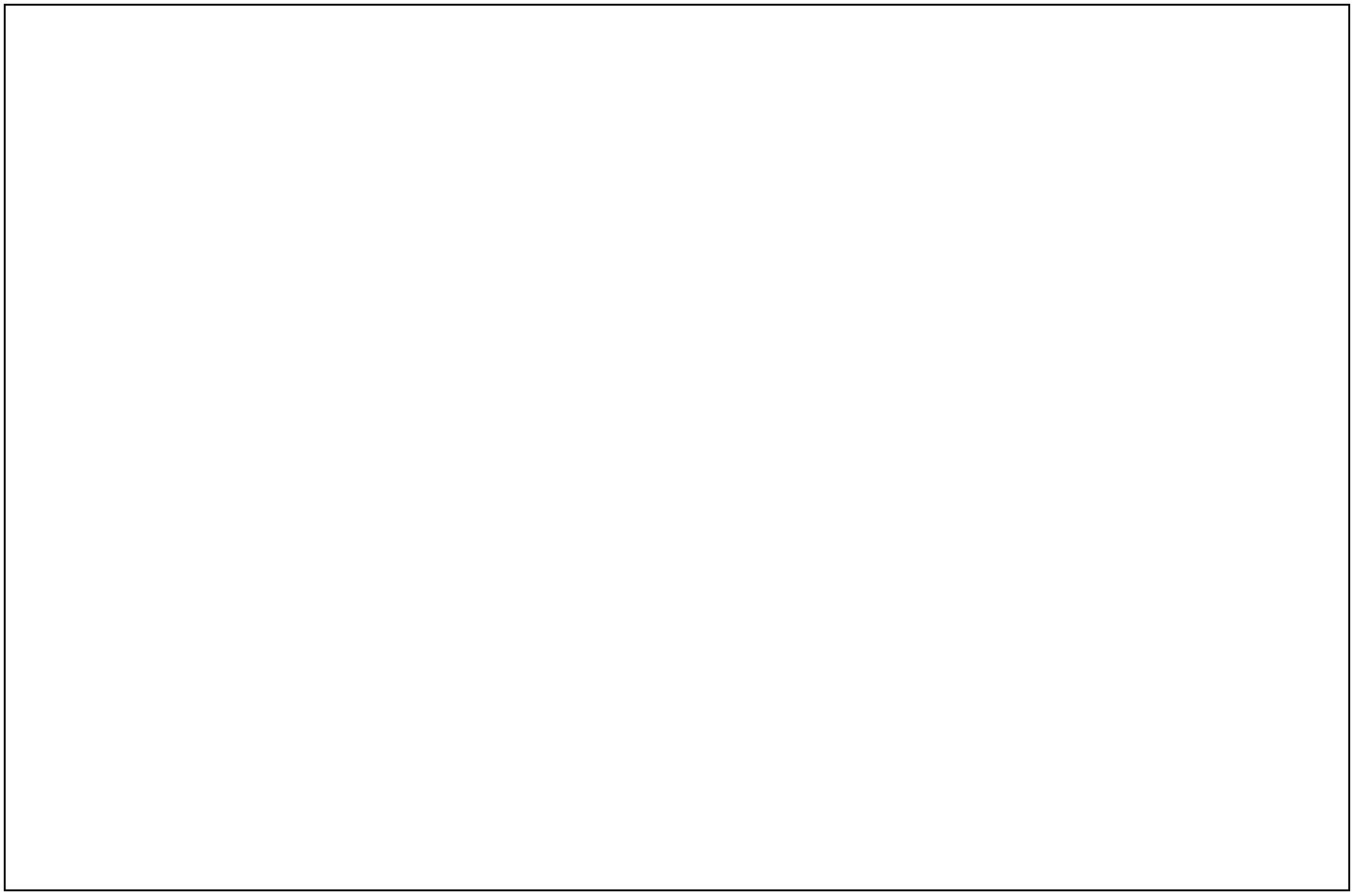
How Weather has impacted on me



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Lesson 5

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Weather Observation

What the sky looks like	How much cloud cover?	Science words
