The learners Wonderings to motivate planning;

- I wonder if the weather ever changes?
- What is the difference between Antarctica and the Arctic?
- I wonder if the emperor and king penguins are the same?
- How do they make igloos?
- I wonder when baby penguins get born? Season?
- I wonder how they made Antarctica?
- I am wondering why is it normally dark?
- How do penguins make the eggs in the nest?
- I wonder how and why the huskies are not in Antarctica anymore?
- Why were huskies so important in Antarctica?
- I am wondering how does it get so cold?
- How do penguins and seals swim in such cold weather?
- Why does Antarctica have different types of penguins?
- I wonder how penguins and seals breathe underwater?
- How do penguins hold their breath for a really long time?
- Why do penguins and seals die?
- Why are penguins so important to Antarctica?
- Do huskies have babies?
- How cold are the snowstorms?
- Why does Antarcticca have buildings?
- Why do penguins not fly? Grace C and why do they have wings?
- Can penguins lay down?
- Why do penguins not have any predators on land?
- How does the land stay on the water
- How do penguins have strong feet
- How to penguins learn to huddle
- How do scientists get food
- How have they made scott base (not interfering with penguins)
- How do the humans breathe on antarctica because there are no trees and plants
- How they the name of antarctica
- How killer whales kill other sea creature
- How did they discover antarctica

Antarctica

Material world Properties and changes of matter

Observe, describe, and compare

physical and chemical properties

Science

Arts

Developing practical knowledge

Explore a variety of materials and tools and discover elements and selected principles.

Maths

Measurement

Order and compare objects or events by length, area, volume and capacity, weight (mass), turn (angle), temperature, and time by direct comparison and/or counting whole numbers of units.

of common materials and changes that occur when materials are mixed, heated, or cooled.		
Antarctica map - ideas		
Week/Day	What?	Comments
Week 1: Tuesday	Penguin Life cycle Share and talk about Emperor Penguin Powerpoint Life cycle - creating a life cycle pinwheel.	
Week 1: Wednesday	Why do penguins have wings but do not fly? Why can't birds fly video - Conserve energy -needs energy to stay warm - keep others warm -to swim -too heavy to fly, no need to due to few predators on land.	Possible activity - In groups of 4, construct wings for a person from news paper or other materials. Can they fly now? - too heavy etc.
Week 1: Thursday	Can penguins lay down? How do penguins make the eggs in the nest? Quick recap of how male penguins look after eggs on feet while mother gets food. A nest would be too cold for an egg. Watch video Baby penguins feeding, mothers getting fish, fathers leaving and sliding on tummies video Discuss points e.g. how could the penguin lay down. They lay on their tummies to sleep in warmer months.	Possible activity - Egg template, they cut a little zigzag in the middle and open egg, glue it in book and draw penguin in egg. Further questions Why do penguins have flippers Why do penguins live in antarctica but not the arctic How long to get to antarctica
Week 2:	I wonder when baby penguins get born? Season? How do the penguins stay warm?	Possible activity - Blubber experiment set up, normal hand in cold water vs

	Video of penguins staying warm, chicks born in winter, sleeping standing up in winter for warmth -note: in summer penguins can sleep on their tummies Blubber experiment.	gloved hand in cold water.
Week 4;	Antarctica and the Arctic? Look at the 2 places on the globe and discuss the one major difference of the Arctic being ice mass floating on water and Antarctica being an actual continent of land. Can discuss other differences such as wildlife etc.	Physical examples could be showing a large ice mass floating in a pool of water. Going outside and identifying our land and imagining it covered in ice sheets and snow. Place our ice on the field (land).
Week 4;	• I wonder how they made Antarctica? Antarctica was discovered by explorers and it is an actual continent (land mass). Discuss how it looks and the many layers beneath the ice and snow.	Make a mini Antarctica to identify the land and layers of ice and snow. Make in poster form using paper layers and labels. Possibly fluff for snow.
Week 4;	 Why does Antarctica have buildings? Brainstorm why we think Antarctica has buildings and who would need the buildings and why? Who goes to Antarctica? 	Make a mini Scott - Base to erect on top of the mini Antarctica. https://www.youtube.com/watch?v=a bYXJeLBkdA
	Invite whanau to see the mini Antarctica and ask the tamariki questions.	Where is the land? What is on top of the land? Where are the sheets of ice? Are the ice sheets deep or shallow? Does the snow ever melt? What is that building called? Why is the building needed? Who uses it?
Week 3	Cool facts about Antarctica (5mins)	https://www.youtube.com/watch?v=t 3StWheKtq8
Week 3	 I am wondering why is it normally dark? Watch video and then act it out using props. The earth spins and makes its way around the sun, it takes a full year to make its way around the sun. 	https://www.youtube.com/watch?v= KFUkQqHj5qA Tamariki in a circle, someone in the middle as the sun (maybe holding a torch), seasons positioned around the circle (holding winter, summer sign etc), someone holding spinning globe walking around the sun, note the earth is tilted on its axis and

		observe what happens when Antarctica gets to winter then summer.
Week 4		
Week 5	Scientist visit	(we learnt about the layers scientists wear to keep warm)
Week 6	-Make scientists clothing Demonstration using felt doll (adding the layers) Brainstorm different items of clothing a scientist needs on AntarcticaChildren go away and cut out body templateChildren start planning clothing and drawing clothing on paper for a templateChildren attach templates to fabric and cut fabric out to put on person template.	Resources; fabric scraps, paper templates, variety of textiles, cardboard