

Session One:

<https://www.youtube.com/watch?v=kq5ugK4I74c> General video (3min)

<https://www.youtube.com/watch?v=pPTsc2fggfw> Survival Video (9 min)

What do we want to learn/ find out?

When does the storm come up?

How do the huskies survive in a storm?

How do they know when a storm is coming?

How do they hold the tent down so the wind doesn't blow it away?

What is the tallest mountain?

How strong is the wind?

Where do the huskies come from?

How do the animals survive?

How do walkie talkies work?

How much food would they need for 20 people in a week? What type of food?

How do they walk in the very strong wind?

How many tents do they need for all of the scientists?

How do you survive when it's raining and windy?

How do you get water?

How do you survive in winter? What's it like when it's pitch black?

Things to do:

- Make shelters
- Cooking food
- Using walkie talkies

Links/ Resources

https://www.coolantarctica.com/schools/antarctica_project_lesson_plans.php Cool Survival Activities such as making shelter etc

<https://www.sciencelearn.org.nz/resources/326-antarctic-life-and-ecosystems>
<https://www.sciencelearn.org.nz/resources/953-animal-and-plant-adaptations>

Imagine you are an Antarctic explorer

Provide students with the opportunity to think and behave like a scientist. Students will imagine they are an explorer visiting Antarctica for the first time. Below is a suggested framework for their research.



Preparation – make a list of what you will need to take with you on your expedition. Consider clothing, food, scientific equipment, mode of communication.



The journey – Organise your journey to Antarctica. Consider what modes of transport you will use to get there and how long it will take. Plot your journey on a map. Refer to this [distance map](#) to calculate approximately how far you need to travel. Create an itinerary for your journey.



Living in Antarctica – Where will you be based in Antarctica? Describe the living conditions. What are some of the challenges? Check out these [live webcams](#) to get an idea of the conditions.



Reflection – Write a journal entry in your diary about your experiences. Title your entry 'A day in the life of a scientist living and working in Antarctica'.

Visit the Australian Antarctic Division's website on living and working in Antarctica. This website is an important reference for expeditioners before they depart for Antarctica, and anyone seeking information on the unique challenges of living and working on station and in the field.

<http://www.antarctica.gov.au/living-and-working>

<https://www.nytimes.com/2008/03/28/nyregion/28teacherbox.html> Tips for surviving in Antarctica

Survival kit list

https://www.scholastic.co.nz/media/2375/arctic_and_antarctic_survival_kit.pdf

<https://www.youtube.com/watch?v=o9U-1t3qeLs> Top 10 survival kit video

Design clothing for Antarctica out of newspaper

https://www.educationworld.com/a_lesson/lesson/lesson042.shtml Cool lessons

<https://www.twinkl.co.nz/resource/t-l-52170-job-application-for-antarctica-differentiated-activity-sheets>

<https://www.twinkl.co.nz/resource/t2-s-1185-antarctica-virtual-reality-learning-and-activity-pack>

<https://www.twinkl.co.nz/resource/us-g-67-compass-points-display-posters>

<https://www.twinkl.co.nz/resource/ks1-what-do-animals-need-to-survive-differentiated-activity-sheets-t-sc-436>

<http://rata.learnz.org.nz/summary.php?vft=antarctica184> LearnNZ field trip

<http://www.learnz.org.nz/antarctica184/resources>

<http://www.wicked.org.nz/Themes/Themes-gallery/Antarctica>

<https://www.youtube.com/watch?v=lxvvyfE01kc> Vaporising boiling water

Looking at temperature in Antarctica and Christchurch and wind chill and track this

<https://www.teacherspayteachers.com/Product/Project-Based-Learning-Activity-Island-Survival-PBL-2392613>

<https://www.teacherspayteachers.com/Product/The-Wild-Robot-Activities-STEM-Challenges-3070384>

<https://www.teacherspayteachers.com/Product/Rainforest-Survival-a-Project-Based-Learning-PBL-Activity-4436121>

<https://www.twinkl.co.nz/resource/t3-g-158-how-do-people-survive-in-the-desert-activity-pack>

<https://www.twinkl.co.nz/resource/t-t-2547733-on-a-desert-island-activity-sheet>

Week 1	Monday: Survival kit list https://www.scholastic.co.nz/media/2375/arctic_and_antarctic_survival_kit.pdf
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Discussion- which items did we all agree would be important and why?

<https://www.youtube.com/watch?v=o9U-1t3qeLs> Top 10 survival kit video

Tuesday:

Start group with a big cutout map of Antarctica and have children write things that they know about Antarctica on this map. Add to it with different things we learn throughout the topic in different colours or added sheets of paper.

"Today you are all going to become explorer-scientists who have been given the mission of finding out about Antarctica. You will be leaving in one week and you need to use the time that you have left to discover as much about Antarctica as possible. If you don't have the right information, you might come across many dangers and you might even risk your lives and the lives of the others.

Your first job is to find out where Antarctica is, and what it's like there. You then need to decide what you should take with you and say why you need those things.

You will be going on this expedition with four other people and each of you is allowed to take four things, apart from your clothes. In your groups you will discuss what things you need.

Groups of 4- Each group decides on 4 essential things to bring, apart from their clothes

Once the decision has been reached, children come to the mat and research the weather and wind chill in Antarctica

<https://www.antarcticanz.govt.nz/scott-base/webcams-weather>

	<p>https://www.youtube.com/watch?v=A_HgfsX_9aY</p> <p>https://www.youtube.com/watch?v=Ke2zJK_g8E0 Wind chill video 2min</p> <p>When you finally arrive, you must write a short journal entry to describe the situation. Remember, you don't have much time to write, so only write the important things. Good luck!"</p>
Week 2	<p>Monday:</p> <p>Start group with a big sheet of paper with a roughly drawn outline of Antarctica and have children write things that they know about Antarctica on this map. Add to it with different things we learn throughout the topic in different colours or added sheets of paper.</p> <p>See Think Wonder</p> <p>If time please do a big class brainstorm with any other questions the kids have or things they would like to do as part of our survival inquiry over the next couple of weeks</p> <p>Wednesday:</p> <p>"You are now the researchers and in Antarctica most bases are not on frozen soil, but on bedrock or on a (usually moving) ice-shelf - which present their own problems. You must quickly build a shelter. Firstly, you must find out that kind of materials were used to build shelters in the past, and what is being used now. You must discuss amongst yourselves whether you will use olden day materials or present-day materials and why".</p>

	<p>Research Antarctica shelters on Ipads (in groups)</p> <p>5 Groups: Group 1- 2 tents, Group 2 - 2 tents, Group 3- 1 sheet, 3 cushions, Group 4- 1 sheet 3 cushions, Group 5 - all remaining cushions and beanbags</p> <p>2 sheets</p> <p>4 Tents</p> <p>Cushions and beanbags</p> <p>Draw image of shelter with selected materials- 5 minutes</p>
<p>Week 3</p>	<p>Wednesday</p> <p>5 Groups: Group 1- 2 tents, Group 2 - 2 tents, Group 3- 1 sheet, 3 cushions, Group 4- 1 sheet 3 cushions, Group 5 - all remaining cushions and beanbags (Same groups as last time)</p> <p>Begin making shelters</p> <p>Halfway through this activity teacher informs students that,</p> <p>"A snowstorm has just hit and you must quickly decide what you should do to remain safe."</p> <p>https://www.niwa.co.nz/education-and-training/schools/resources/climate/antarctic</p>

	<p>Short time later teacher informs class that,</p> <p>"Luckily the storm only lasted for a short while and you can continue building your shelter."</p> <p><i>Finish journal entries on building shelters and the Antarctic storm if time</i></p> <p><i>If time do a class brainstorm of questions we would like to investigate and things we would like to learn more about at the end of the session.</i></p>
<p>Week 4</p>	<p>Monday-</p> <p><u>Research into Antarctica</u>, into the climate, weather and helpful and harmful plants and animals, <u>Planning a list of survival items</u> (overall price not exceeding \$500).</p> <p>If time complete the <u>3 things we are most looking forward to seeing and why</u> sheet</p> <p>Wednesday-</p> <p><u>Survival Planner</u> (independent activity- but could do in groups if children want to collaborate) to outline dangerous plants and animals, and possible sources of food and shelter</p>
<p>Week 5</p>	<p>Monday- How do explorers find their way around in Antarctica? What is a compass?</p> <p>Research on iPads into compasses (looking at QR codes) and filling out the 'what is a compass' and 'why are compasses important' parts of sheet. (10 minutes)</p> <p>Class research into making homemade compasses altogether and filling out steps (10 minutes)</p>

	<p>Making homemade compasses out of needles, magnets and paper. https://survivalhax.com/blogs/survivalhax/113077124-how-to-make-a-compass-from-a-paperclip-in-3-easy-steps</p> <p>(20 minutes)</p> <p>Wednesday- No inquiry due to Athletics</p>
<p>Week 6</p>	<p>Monday-</p> <p>No inquiry due to storm</p> <p>Wednesday-</p> <p>Class research into making homemade compasses altogether and filling out steps (10 minutes)</p> <p>Making homemade compasses out of needles, magnets and paper. https://survivalhax.com/blogs/survivalhax/113077124-how-to-make-a-compass-from-a-paperclip-in-3-easy-steps</p> <p>(20 minutes)</p> <p>Testing compasses and using compasses on iPads</p>
<p>Week 7</p>	<p>Monday-</p> <p>Task for tomorrow: Building igloos for family out of cotton balls in groups as a STEM challenge. The igloo must be tall enough to shelter the family (family is about 5cm tall and wide) and it must withstand the wind of being held up to the fan to test the igloo.</p> <p>Today's task will be completing the planning sheet that looks like this but give them the brief for tomorrow so they can keep this in mind.</p>

BUILD A SHELTER

Sketch a quick picture of the shelter you built to survive your first night in the Rainforest.

What
take
y

YOUR SHELTER



Explain how your shelter will serve its purpose and help you survive your first night.

JOB WELL DONE I WILL SURVIVE.

1.

2

3

4

5

Wednesday-

Finishing off shelter research from Monday



Monday:

Constructing shelters out of paper, glue and cotton balls (in 5 groups) and testing holding up to heatpump if time at the end of session

Building igloos for family out of cotton balls in groups as a STEM challenge. The igloo must be tall enough to shelter the family (family is about 5cm tall and wide) and it must withstand the wind of being held up to the heatpump to test the igloo.

Other ideas:

- Building clothes for penguin?
- Building clothes out of newspaper
- Making compasses and using compasses
- <https://www.rookieparenting.com/make-your-own-compass/>
- Animal research and profiling on iPads

After this we could do the survival challenge on a desert island and then compare and contrast survival in Antarctica with survival on a desert island. Venn diagram. Which one is easier? Which one would you rather do?

Learning Artefacts- Survival planner, shelter planner + igloos, compass photos with description of how to make a compass?
(Learning Artefact due in Week 8 or 9)
