Learning Sequence 1 - The Geological History of the Arctic

Learning Elements

- The influence of people on the environmental characteristics of places in Europe and North America, South America, Africa, Asia, Antarctica, Australia and the location of other major countries in relation to your home country
- The influence of people, including First Nations People, on the environmental characteristics of places and history.
- The environmental and human influences on the location and characteristics of a place and the management of spaces within them
- The impact of natural disasters including bushfires or floods on environments and communities, and how people can respond.
- Researching Locate and collect relevant information and data from primary and secondary sources
- Organise and represent data in a range of formats including tables, graphs and large- and small-scale maps, using discipline-appropriate conventions

Introduction

This week, we're going to be starting our learning journey by understanding the history of the location of the Arctic Circle. This week's lesson will be delivered directly to you from the island of Svalbard, which is the most northern city in the world.

We will start to understand how the Earth moves continuously, creating new landscapes, new continents and new countries, and we will start to understand that everything under our feet is consistently and continuously moving.

These movements are extremely small and very, very slow, but over time, these slow movements create new landscapes, new landforms, and even mountains that are right behind us today.

This week you are going to research your very own country and start to understand its origins, its history, and the journey throughout the geographical time that your country has been through.

'Nature's secret is patience.'

Watch the welcome video

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Teacher Notes - Before the students can start to understand life in the Arctic Circle, it is extremely important they understand their own countries journey.

During this learning sequence, we will start to understand the geology, the geography and the geological history of the place where you currently live. Using this as a benchmark or starting point, we will then delve into what life looks like in the Arctic and how it affects each and every Organism on the planet.

This will allow your students to have a concept of time and the difference between time and geographical time, which is usually on a larger scale.

This week is all about gaining perspective.

Weekly Keywords

These words will help you during this week's lesson. You may already know some of these words however practice makes perfect!

First, read the words and then try to define them as simply as possible.

An example has been completed for you. You can write these into your books, and draw a picture to match or simply complete the task card.

Keyword task Card

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Teacher Notes - Introduce the spelling word list and choose from this list of tasks that can be repeated and expanded upon if necessary.

Copy the words into a spelling list/Vocabulary book for later reference.

- Sequence information about people's lives, events, developments and phenomena using a variety of methods including timelines
- Examine primary and secondary sources to determine their origin and purpose
- Examine different viewpoints on actions, events, issues and phenomena in the past and present.
- Interpret data and information displayed in a range of formats to identify, describe and compare distributions, patterns and trends, and to infer relationships
- Evaluate evidence to draw conclusions
- Work in groups to generate responses to issues and challenges
- Use criteria to make decisions and judgements and consider advantages and disadvantages of preferring one decision over others
- Reflect on learning to propose personal and/or collective action in response to an issue or challenge.
- Reasons (economic, political and social) for the establishment of civilisations and their journey as a

Put each of the new words into a sentence and underline the new vocabulary in red pencil

Place the words in alphabetical order in a list.

Use a dictionary to define each of the words and place them into a vocabulary book.

Try to represent each of the words using a picture or a symbol and play the guessing game. (which image is matched to which word)

Write a paragraph containing all of the new vocabulary.

Make a vocabulary wall containing all of the new words.

Use a thesaurus to find synonyms for the words and create a synonym list.

Read and Discuss - 'Weekly Warm-Up Activity

Read the following information booklet with the people at your table and try to use the information you heard in the introduction video to answer the following questions:

The questions this week are all about the history of the Arctic and the geology and geography involved!!!

- 1. Which countries have sovereign territory in the Arctic Circle?
 - 2. What is special about the Arctic Ocean?
- 3. What happens to the ocean in the wintertime?
 - 4. What best describes a glacier?
- 5. Why is the island of small Bard given the nickname Spitsbergen?
- 6. Has Svalbard always been near the North Pole?

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Teacher Notes – During this weekly activity, we will read information booklets on the Arctic Circle based on various subjects.It is a wonderful idea to read these together as a class or have this as a guided reading activity.

The information included on the task cards is short and sharp and includes lots of statistics and facts which will make it very easy and digestible for the students in your classroom

The comprehension questions can be used in conjunction with the task card and the introductory video to deepen the children's knowledge on the Arctic each week before we get into the deeper learning within each lesson.

	group.
•	Develop appropriate questions to guide an inquiry about people, events, developments, places, systems and challenges
•	Present ideas, findings, viewpoints and conclusions in a range of texts and modes that incorporate source materials, digital and non-digital

representations and discipline-specific

terms and conventions.

7. What shape are the valleys that glaciers create?

8. How old is the island of Svalbard?

Local Study - Where were we?

Take a look at the following video which explains that 300 million years ago, all of the countries and continents we know today, were once joined together in a huge supercontinent called Pangea.

The ground you are standing on and the land beneath your feet was also part of this supercontinent. It has been moving and drifting for millions of years and is still moving today.

This movement is called **continental drift** and it is these movements that cause the landforms such as mountains, hills, valleys and even rivers that we see in the Arctic and in your local area too.

Watch the video closely and use this knowledge to start your research on the local area where you live! https://upschool.co/courses/it-starts-with-you/les son/learning-sequence-1

Teacher Notes - Before students can start to understand the geography and the geology of the Arctic area, it is first, very important for them to understand their own local area and country

During this part of the lesson, if we want students to understand the history of the world, plate tectonics and the drifting of the continents over the last 300 million years, this will give them some perspective on when their country once stood in terms of the supercontinent Pangea.

From this understanding, our students will then conduct some research on their own country and start to understand how some of the landforms were created and how their country has moved across the globe over several millions of years. They may even start to discover where their country may lie in the future.

Researching Your Local Area!

Now is your turn to research the geological history of your local area.

Use the following task card and follow my example of the geographical features of Australia, to conduct your own research on your country, town, city or even continent.

Your objective is to find out more about its geological history, its landscape and the formations which are all around you.

You might want to use these questions as a guideline whilst doing your research.

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Teacher notes - Before students can start to conduct their research on the Arctic Circle, it is very important that they get some perspective on the place in which they live currently!

During this task, we use the example of Australia to demonstrate that each country, continent and city in the world is different and comes from a different time in geographical and geological history

Ask your students to follow the series of research questions using at least three sources of information and complete their very own geographical features

 Where is your city located on the world map? What is the largest mountain closest to where you live and how was it formed? Is the place where you live predominantly covered with forests, ice, mountains, deserts or grassland? Which tectonic plate does your country sit upon? Is it currently moving and in which direction? What is the longest river closest to where you live and what kind of work does this river do? What are some special and interesting facts about the country where you live? You will need to conduct research this week, and this may involve you asking people you know, reading books or researching on the Internet to find out the answers to the questions above. Remember, the more knowledge that you gain, the more perspective you will have on where you are placed in the world and the importance that you have in influencing the rest of the planet. 	task card. Students can complete this digitally, or this can be printed or used with drawings or even paintings to put together their own geographical history of their very own location. Perspective is everything!
Closing Video with Gavin Well done everybody. You have started your journey of being an Arctic researcher and a geologist.	https://upschool.co/courses/it-starts-with-you/les son/learning-sequence-1
Next week we will be looking at the history of the people who lived in the Arctic and start to research the history of the people who've lived in your country. These are called indigenous people or First Nation people.	

There may be many things that you do today and the ways that you Live Today, which have been influenced by the First Nations people who first inherited the country you live in, and it's from these lessons that we can have a great understanding of what the future may hold and the way that we can change the way that we live to improve the future for everyone. See you next week.

Extension Activity #1 - Leadership Program Week 1

Charles S. Lauer said 'Leaders don't force people to follow—they invite them on a journey.' It is now time for you to invite a younger child to take a journey with you. A journey of discovery!

Each week we will be asking you, as an older student to buddy up with a younger student in your school

We want you to pass on the knowledge you have gained this week to a younger student whilst developing leadership mentorship and with the responsibility of working with the youngest student in the school.

You may think that this is a task which has no meaning. However, to the younger child in the school, it will have a huge influence on the way that they approach education and the way they feel within school

You will be a continuous safety net, almost like a big brother or sister to a younger student in the school, whilst also developing leadership, communication, and the confidence to be able to lead into the future.

Use this template to help you plan your lesson and gather your resources before you head down to the younger children's classroom, to reteach what you have just learned.

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Teacher notes - Each week we will request that your older students over the age of eight, to buddy up, or partner up with a younger child in your school, and every week they will pass on the knowledge they have gained from this lesson and take it to the younger cohorts within your school and develop their own leadership skills

Please take a look at the very simple and child-friendly Lesson plan that I have developed above and this should be read and understood by the students before they prepare their lesson and their learning for a younger child

The reasoning behind this methodology is to develop leadership, confidence, responsibility and communication skills between the older and younger students within your school. This will bring the cohort closer together and build a sense of community throughout your entire educational establishment.

Extension Activity #2 - Landform hunt!

There are many types of landforms around the world, and during this extension activity, we want to give you the challenge of trying to find all of the geographical and geological landforms on the chart opposite

Make a copy of this chart and take it home with you and over the next few weeks try and see if you can find these geographical and geological features around your local area. You may wish to ask your mum, your dad, your grandma, or your grandad if they take you on a walk somewhere in the countryside, where you can possibly find out if these landforms exist near you

If you want to do further research, you could then discover how these landforms are created and where else they can be found in the world.

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Teacher Notes - Allow the students to take home a copy of the geology scavenger hunt

This extension activity will allow your students to try to find these geographical and geological features in their own local environment and for further research. Students can then start to discover why they exist, how long they have been there, and how these landforms are created through geological and geographical processes.