



Year 1 - Spring 1- Science Knowledge Organiser: Polar Adventures



What I already know...

We already became familiar with a range of different materials last term and are getting proficient at describing the properties of many using words such as flexible, opaque, transparent, translucent and soft. We explored our outdoor environment found out about the effect of the changing seasons on the natural world around us as summer turned into Autumn and the nights grew longer.

What I will learn...

- To name animals that are birds, fish and mammals including amphibians, birds, mammals, fish, reptiles and humans!
- To name common animals that are carnivores, herbivores and omnivores and to describe and compare different common animals.
- Materials and their properties** Materials are what an object is made from— materials can be hard, soft, stretch, shiny, dull or rough
- Glass, rock, paper, plastic, wood, fabric are common materials
- Materials have properties: smooth objects have no lumps, materials can fold/bend, waterproof materials don't let water in, absorbent materials soak up water, transparent objects can be seen through and opaque materials cant.
- We learn about **seasonal change** and that there are four season each year, Spring, Summer, Autumn and Winter. In Winter the weather is much colder. Many trees loose leaves and the daytimes are the shortest in the year and the nights the longest.
- To work scientifically , perform simple tests and use observations to answer questions

Key Vocabulary

amphibians	live in the water as babies and on land as they grow older.
birds	have a beak, two legs, feathers and wings.
fish	live and breathe under water. They have scaly skin, fins to help them swim and they breathe through gills.
mammals	breathe air, grow hair or fur and feed on their mother's milk as a baby.
reptiles	breathe air. They have scales on their skin.
herbivores	Animals that only eat plants
carnivores.	Animals that only eat meat
omnivore	Animals who eat meat and plants
materials	the matter from which a thing is or can be made.
seasons	each of the four divisions of the year

Making a difference at The Merton

As the weather here continues to be cold we dress for the artic and immerse in a polar adventure, begin by making real icebergs and observe how they melt in different places. We consider how this effects the habitat of polar bears and develop an awareness of the impact of human actions on the arctic habitats and how we can make a difference to the conservation of endangered animals. We look at the work of Sir David Attenborough, and learn about his childhood and how he has inspired many to make a difference to our planet especially with regard to his work for the WWF we promote this work to our peers and suggest ways to help the polar animals. To learn about **everyday materials** within the context of the polar regions, the importance of being environmentally aware and responsible for rubbish (reduce, reuse, recycle) and make links to our own lunchboxes/classroom/home environment. We explore the importance of reusing/recycling and repairing within this context of school and home as well as within the wider world

Seasonal change— winter We embrace cold days that illustrate the change in the season— use our woods, the wildlife and the weather to explore using our senses.

Making a difference at home



What can you do to help protect the planet? Can you save energy by remembering to turn off the lights in your home when leaving a room or by putting on an extra jumper instead of turning the heating up?

Maybe you could design a poster to inform others about the polar landscapes or even look after the wildlife in your own gardens by making sure they have food and fresh water to drink through the chilly months. It is lovely to watch the birds feed in the garden.

