

# HOW DO MODERN DAY EXPLORERS KEEP WARM IN ANTARCTICA?

## INVESTIGATING THE TYPES OF CLOTHING WORN BY POLAR EXPLORERS

### POLAR SURVIVAL KS1 KS2

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#### Curriculum mapping:

##### Science

Aims: are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future

Scientific enquiry should include: observing over time; pattern seeking; identifying, classifying and grouping; comparative and fair testing (controlled investigations); and researching using secondary sources.

KS1 – Everyday materials;

- distinguish between an object and the material from which it is made
- identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock
- describe the simple physical properties of a variety of everyday materials
- compare and group together a variety of everyday materials on the basis of their simple physical properties
- identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses

##### English

Aims - are competent in the arts of speaking and listening, making formal presentations, demonstrating to others and participating in debate

##### Spoken language

All pupils should be enabled to participate in and gain knowledge, skills and understanding associated with the artistic practice of drama

Pupils should be able to adopt, create and sustain a range of roles, responding appropriately to others in role

#### Introduction activity

Discuss with the class the facts that the early Antarctic explorers were only able to wear natural fibre clothing.

Make a list of natural fibres.

Identify any natural fibres that you or the class are wearing at this moment.

Draw pupils' attention to the fact that most clothing we wear nowadays is made of manmade fibres, and we can usually see this by looking at the labels.

Perhaps make a list of manmade fibres.

### Main part of lesson

Discuss the issues surrounding explorers wearing natural fibres. The problem was that they would be wearing heavy layers of itchy woollen fabrics and outer canvas layers that would soak up any moisture produced by sweat, instead of allowing it to escape.

Watch the jacket video located on page 24 of the Encyclopaedia of Artefacts ([http://polar.lgfl.org.uk/encyclopaedia\\_of\\_artefacts.html#book/25](http://polar.lgfl.org.uk/encyclopaedia_of_artefacts.html#book/25)), stopping at 2 minutes 14 seconds where the footage explains the dangers of being wet in the Antarctic and of sweat freezing on your skin.

Ask the class how they would feel if they would be putting on clothes each morning that were still wet from the day before, perhaps partially dry, but frozen overnight.

Would that make them ready for a day of exploration?

Explain that the explorers would be used to their clothes being cold and frozen and uncomfortable but as they wore the garments through the day they would warm up and the clothes would become comfortable again.

Discuss what modern day explorers wear and how they differ from the old explorers' clothing.

They wear:

- A mixture of natural and manmade clothing but in many layers.
- Thin layers of clothing; manmade fabric can be thin, but will trap air and therefore warm up
- Having layers means that a layer can be taken off if the explorer gets too warm to avoid the problem of moisture from sweat.
- The outer layers of modern explorers' clothing are now made to be waterproof and windproof

Watch the video clip 'modern day kit bag' located in Polar Stories: [http://polar.lgfl.org.uk/polar\\_stories.html#book/9](http://polar.lgfl.org.uk/polar_stories.html#book/9)

Explain that as a follow up activity, pupils are going to create their own advice sheet for a new explorer.

They are to imagine that they are the expert on keeping warm in cold places and are producing an advice sheet for novice explorers.

Watch the video again if necessary and ask pupils to use all the information gathered to write an advice sheet, using pen and paper or j2e5.

### Plenary

Pupils can act out a scenario about being an expert on keeping warm.

In pairs, one child is the expert and the other pupil questions them on how to stay warm, referring to their advice sheet where necessary.