

Frozen Lands: Poles Apart?

ART/DT LINKS

- Snowflakes (3D and 2D)
- Frances Hatch - ice landscape techniques: marbling, mixing cold colours, acrylics, flour in pre - mixed paint, layering tissue)
- Polar animal template for window/chair (snow spray)
- Design & make a cushion for the Ice hotel
- Paper penguin pictures
- Pastels—polar bear, land/iceberg, Northern Lights
- Marbled 'under the sea' pictures
- Google logo design – Google doodle
- Penguin/polar bear wire/masking tape model

COMPUTING LINKS

- Graphic modelling - New Research station/Igloo
- Powerpoint— polar lands
- Publisher—information page on a polar animal's adaptations/newspaper report
- Excel spread sheets budget for kit
- Excel graphing for maths temp
- Animation of a penguin/polar bear life cycle (link to explanation text)

PHSE/RE LINKS

- Working together: leadership, perseverance
- Looking after our world
- Changes
- Global issue consequences
- Responsibility
- Endangered species/conservation

MATHS LINKS

- Rotational symmetry (snowflakes)
- Area of Antarctica/ice sheets - % melting
- Temperature comparison graphs
- Fractions of an iceberg in/on water
- Grid calculation problems
- Handling data for Arctic settler work

SUPER STARTER: The classroom is blue and white with white fairy lights and white covers on the tables...in the middle of each table is a block of ice with a clue to an Antarctic adventure frozen inside! (a map, the advert for the expedition, a compass, a feather, a toy ship)

MARVELLOUS MIDDLE: Rob Leveritt visits school to talk about expedition to North and South poles. Similarities/differences

FABULOUS FINISH: Trip to Whipsnade Zoo (penguins, reindeer) OR SnoZone trip OR ice skating

LITERACY LINKS

- Text: Michael Morpurgo – Snow Tales
- Persuasive letter writing (Join Shackleton's voyage)
- Diary Writing - Antarctic expedition
- Text: Meridith Hooper - Ice Trap. Freeze frame, atmosphere and setting description (imagining Antarctica). Rewrite scene as a playscript.
- Explanation text: penguin/polar bear life cycle
- Poetry: Snow poem
- Newspaper—Endurance disaster/Race to the South Pole/Record Breakers
- Persuasive: visiting the ice hotel
- Instructions: building igloo
- Narrative: disaster, young polar bear
- Auto/biography of explorer
- Information text on polar animal's adaptations
- Discussion text (global warming)

SCIENCE LINKS

Materials

- Freezing/melting
- Insulators and conductors

Animals, inc Humans

- Surviving in the cold
- Habitats: ocean and land
- Adaptations: seals, penguins, polar bears
- Food chains/webs

Light - hours of darkness (North Pole)

HISTORY LINKS

Explorers

- Shackleton
- Race to the South Pole (Amundsen and Scott)
- Record breakers Scott/Peary.

GEOGRAPHY

Antarctica (south):

www.discoveringantarctica.org.uk/teachers.html

The Arctic(north):

www.discoveringthearctic.org.uk/teachers_climate.html

- Where are polar lands in world?
- What is climate like and why?
- Environment/landscape features and conditions and why?
- Who lives there? Plants/animals? Inuits way of life
- Scientific research
- Comparison: North and South Pole similarities/differences?
- Environmental issues: Global warming, greenhouse effect, mining/oil drillage/spills, hunting, pollution, tourism

Learning environment: hanging snowflakes, fake snow animals sprayed on windows (and chairs?), icicle border at top of windows (and room?), bubble wrap, white drapes, indep. learning tasks (in igloo tent?)

shackleton endurance film available on 4od - <http://www.channel4.com/programmes/shackleton/on-demand/30829-001>

CLASS IDEAS

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| - Eskimos – people | - Decorate the classroom polar | -Pivot stick – penguin animation |
| - Animals – looking after cubs, habitats | - Try food you'd eat | - Make clay models of animals |
| - Weather in summer | - Watch Happy Feet | - Draw 3D animal pictures |
| - Sea-life | - Dress up as Eskimos | - Swim as animals |
| - All different climates/weather | - Make audio recordings of sounds | - Global warming |
| - Trip London Zoo | - Video of life in Antarctica | - How do people stay warm/get electricity |
| - Penguin eggs | - Go ice skating | - Winter Olympics |
| | - Sno Zone visit | - |