

Why do polar regions need protecting?

- Find a way to sort/group the ideas to answer the question: Why do polar regions need protecting?
- It may help to refer back to the Arctic food web.
- You can cut out and re-sort, colour-code and devise a key to help you categorise.
- You will need to make connections between pieces of information on different cards.
- You then need to write an answer to the question: Why do polar regions need protecting?

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| <i>Krill live in specific ocean habitats with a specific temperature range.</i> | <i>The hunting traditions of indigenous people are threatened by thinning sea ice.</i> | <i>Lemmings eat leaves and grasses and do not hibernate in winter.</i> |
| <i>Ice algae grows on the underside of sea ice and is eaten by krill.</i> | <i>Reindeer graze the tundra in summer and migrate for food in the winter.</i> | <i>Lemmings have white coats in winter to help them hide from predators such as Snowy owls.</i> |
| <i>Thinning sea ice allows more sunlight through which encourages growth of phytoplankton (algae).</i> | <i>Migration patterns of Snow geese and Arctic terns are affected by blooms of phytoplankton.</i> | <i>Ice seal pups must stay with their mothers on the ice for 6 weeks after they are born.</i> |
| <i>Ice seals such as bearded and harp seals need sea ice to rest, moult and rear their young.</i> | <i>Global warming will change the type of vegetation that grows in the Tundra biome.</i> | <i>Arctic foxes need sea ice to travel for feeding (hunting and scavenging) and breeding.</i> |
| <i>Arctic foxes hunt for lemmings, seal pups and voles. They also eat the remains of food left by polar bears.</i> | <i>Winter ice provides a safe habitat for Bowhead whales to give birth. It protects them from Killer whales.</i> | <i>Changes in feeding and migration patterns of polar bears, walrus and seals make it harder for indigenous people to hunt.</i> |
| <i>Oil pipelines (built above ground) disrupt the migration routes of reindeer.</i> | <i>Hunting of seals by humans is affecting the polar bears' food source.</i> | <i>There is now 10-15% less summer sea ice than in the 1950's.</i> |
| <i>Polar bears use sea ice for travelling, mating and hunting.</i> | <i>Arctic ice became 40% thinner between the 1950's and 1990's.</i> | <i>Walrus need sea ice to rest on, and for breeding.</i> |
| <i>In spring, sea ice is melting earlier, and in winter it is freezing later.</i> | <i>Overcrowding of walrus populations on beaches leads to deaths of pups.</i> | <i>The main habitat of polar bears is sea ice near to ice seal populations.</i> |
| <i>Reindeer habitats are threatened by other land uses such as mining and wind farms.</i> | <i>Reindeer herders make their income from meat, horns and skins.</i> | <i>Many polar bears have starved to death as their feeding patterns have been disrupted.</i> |
| <i>Polar bears use dens in snow on land to give birth.</i> | <i>Bowhead whales eat krill.</i> | <i>Melting of permafrost is causing changes in vegetation.</i> |
| <i>Reindeer require large areas of habitat to survive.</i> | <i>Oil spills have caused serious water pollution in the Arctic Ocean.</i> | <i>Any damage to the tundra landscape is slow to recover. The short growing season means that bulldozer tracks from the oil and natural gas industries could take centuries to restore.</i> |