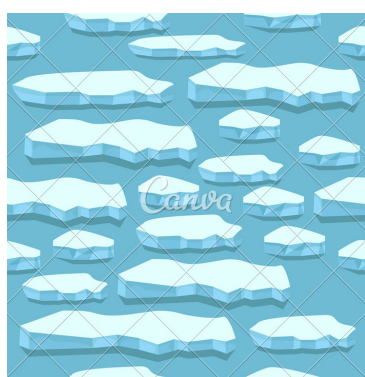BRIANNA LANE

WHY SHOULD I CARE ABOUT SEA ICE?

WHAT IS IT?

Sea ice is a physical feature of the Arctic environment. It forms, grows and melts in the ocean [1, 2]. It can be classified based on age (first-year ice, multiyear ice) or whether it is attached to the shore (fast ice, drift ice) [1,2].

WHY IS IT IMPORTANT?

Sea ice is important at the local and global scale. Sea ice **provides habitat** for bacteria, algae and even marine mammals [1]. Sea ice also **keeps the Arctic cool** due to its high albedo. It can influence ocean-atmosphere interactions by preventing heat exchange [1].

Albedo is a measure of reflectivity. Sea ice, covered in snow, reflects about **90%** of the Sun's incoming solar radiation! [1]
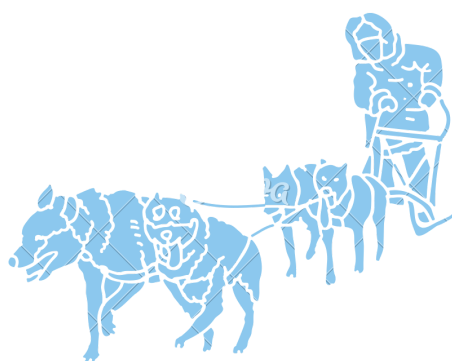
HOW IS IT CHANGING?

Figure Source [3]

Climate change increases temperature causing sea ice melt and a shift to predominantly first-year ice [1, 2]. The extent and thickness are **decreasing** with variation from year to year [2]. The rapid loss of sea ice will lead to higher freshwater discharge and a lower albedo value [1].

WHAT IS THE IMPACT ON CANADIAN COMMUNITIES?

Sanikiluaq, Nunavut has already begun to experience a **loss of traditional cultural activities** such as dog sledding and seal hunting due to the earlier breakup and shorter ice season [4]. Other vulnerable communities include Clyde River and Taloyoak, Nunavut, which are both **threatened by reduced sea ice** [4]. As well, access to seasonal transportation routes may be impeded, and infrastructure may be damaged due to coastal erosion. [1, 5].

WHAT CAN I DO?

To help save Arctic sea ice, you can reduce your greenhouse gas emissions, support environmentally friendly policies and adjust your habits in support of sustainable choices [6]. Nonetheless, it will take collective action to mitigate reductions in sea ice extent and thickness, not simply your individual contribution. Accordingly, it is essential to **encourage others** to do the same.
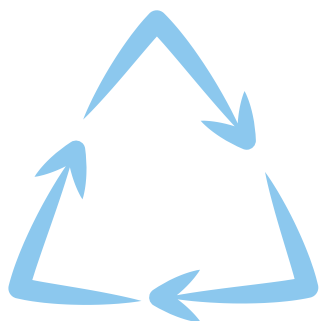
Image Source [7]

WHAT ARE YOU WAITING FOR? LET'S SAVE THE SEA ICE!

References and Image Sources (click link)