

Arctic Breathing Maze

Relay/Roleplay Game

KNOWLEDGE

- Explain through active roleplay the relationship between belugas/seals (marine mammals) and polar bears who hunt them
- Learn about competing animal needs; trade-offs for marine mammals that need to come up for oxygen but dive to find food
- Learn about ocean-terrestrial ecosystem overlaps

ACTIVE

- Students have to take opportunities to breathe in between finding
- Students will have to avoid predators while catching food in Ocean

TIME	GROUP SIZE	LOCATION	GRADE LEVEL	EQUIPMENT
30+ minutes	10+	Classroom or Outdoor Large play area necessary	1+	Hula hoops Bean bags
DEBRIEF/REFLECTIVE COMPONENT			HELPFUL TIPS	
<ul style="list-style-type: none"> • What challenges do marine mammals face living under water but needing to come up for air? • What are the trade-offs for air breathing organisms that hunt underwater? Possible harms? 				

OCEAN LITERACY PRINCIPLES

5. The ocean supports a great diversity of life and ecosystems.
 - d. Ocean biology provides many unique examples of life cycles, adaptations, and important relationships among organisms (symbiosis, predator – prey dynamics, and energy transfer) that do not occur on land.
 - e. The ocean provides a vast living space with diverse and unique ecosystems from the surface through the water column and down to, and below, the seafloor. Most of the living space on Earth is in the ocean.
 - i. Estuaries provide important and productive nursery areas for many marine and aquatic species.

Setup

1. Scatter hula hoops (breathing holes) far apart within playing field.
2. Place bean bags (Arctic cod or squid) throughout playing field.
3. Choose 2 leaders or students to start as Polar Bears
4. The remaining students are belugas or seals and they must collect bean bags as food. Belugas and seals are mammals so while “swimming” and looking for food they must hold their breath unless they come to a breathing hole (hula hoop) to take in breath before diving for more food.
5. While at breathing holes the predatory Polar Bears may tag them which means they are out (alternatively they could lose their food but continue to play)
6. Game ends either when no fish are left to catch or no seals/belugas to collect fish