

# STEAM in the Classroom

SCIENCE-TECHNOLOGY-ENGINEERING-AGRICULTURE-ART-MATH

## EXPLORE PENGUIN INSULATION

December 1 is Antarctica Day! On this day in 1959, the Antarctica Day Treaty was signed by 12 countries. Two species of penguins make Antarctica their true home, while 5 other species spend part of the year living there. Penguins spend much of their time in the water surrounding this icy continent. Let's explore how penguins stay warm in this cold water.

### Materials:

- 4 Zip close quart plastic bags
- 1 Large bowl
- Ice Cubes
- Cold Water
- Vegetable shortening, margarine or softened butter
- Spatula



### Instructions:

1. Fill bowl with water and ice cubes and set aside.
2. Take one zip close bag and turn it inside out.
3. Use the spatula to carefully coat the outside of that bag with vegetable shortening or margarine.
4. Place the coated bag inside another bag and seal.
5. Turn a clean bag, inside out. Place it inside another clean bag and seal.
6. Place one hand in each bag. Then place your bag covered hands in the bowl of ice water.

**Which hand gets cold faster? How do your hands feel?**



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