



**Thinking Glocal:  
Translating Global Conservation  
into Local Action for Children**

Creating Change Symposium:  
*Empathy in Action*

Jennie Warmouth, PhD

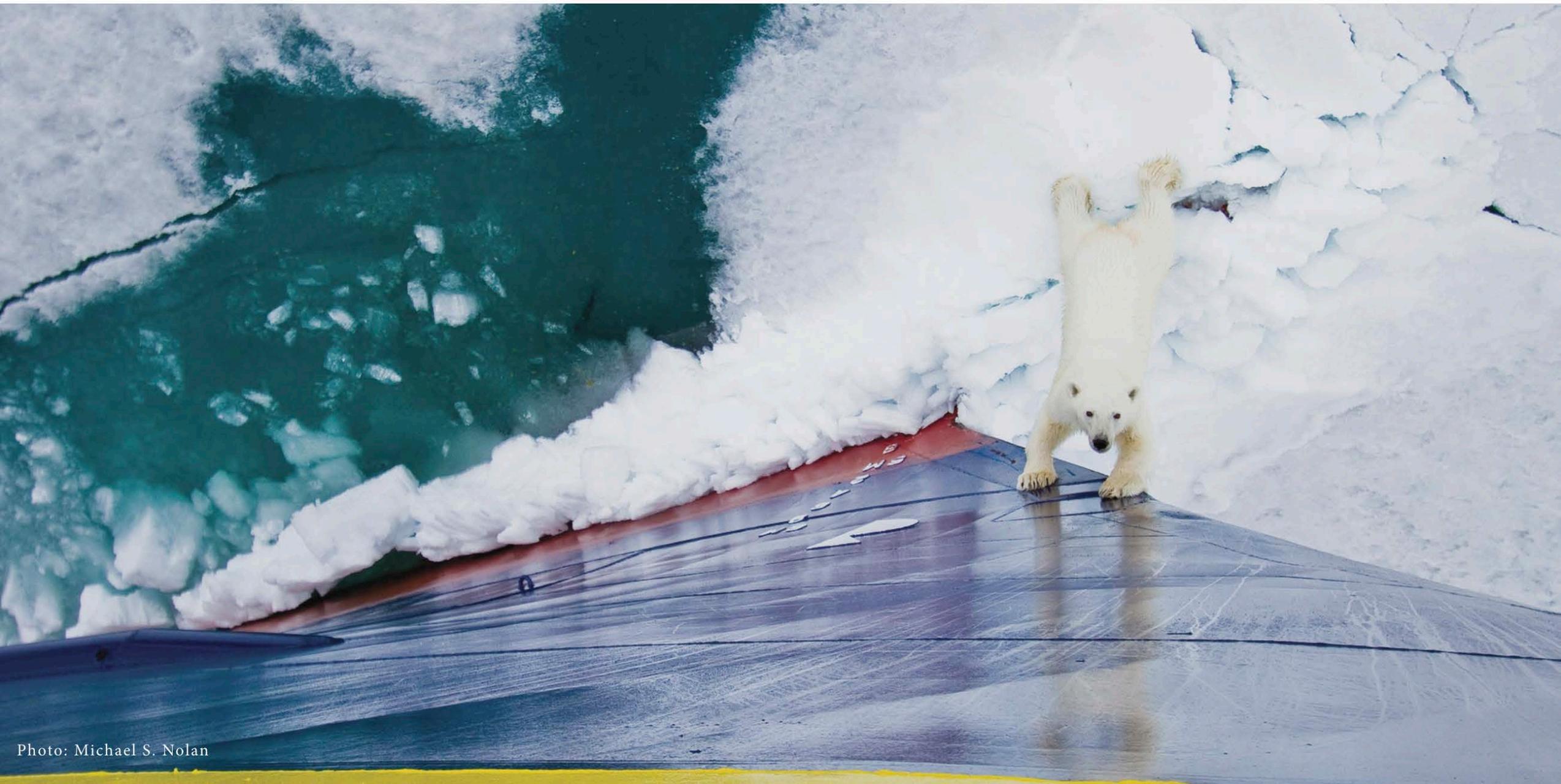






Photo: Ralph Lee Hopkins



# Blue Whale

- Length: 100 feet
- Lifespan: 100 years
- Weight: 300,000 pounds
- Tongue: Size of an elephant
- Heart: Size of a car







# Data Collection

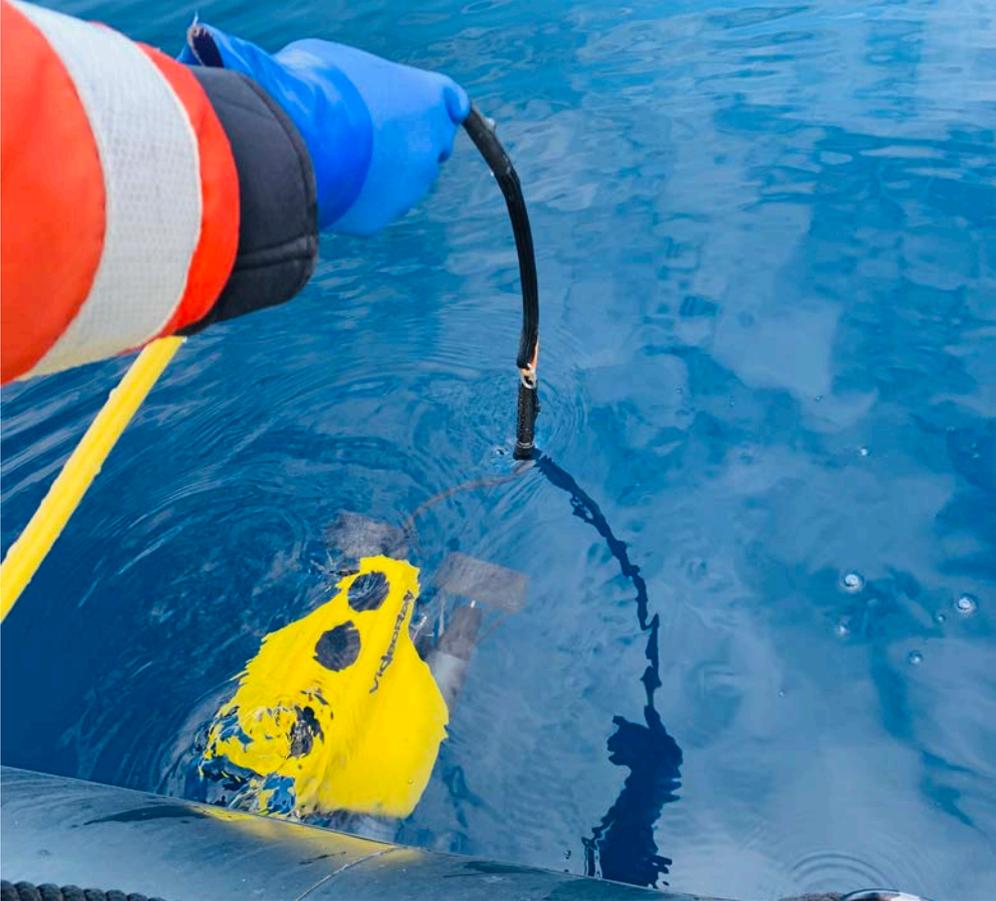




Photo: Maya Santangelo

# Translation & Action

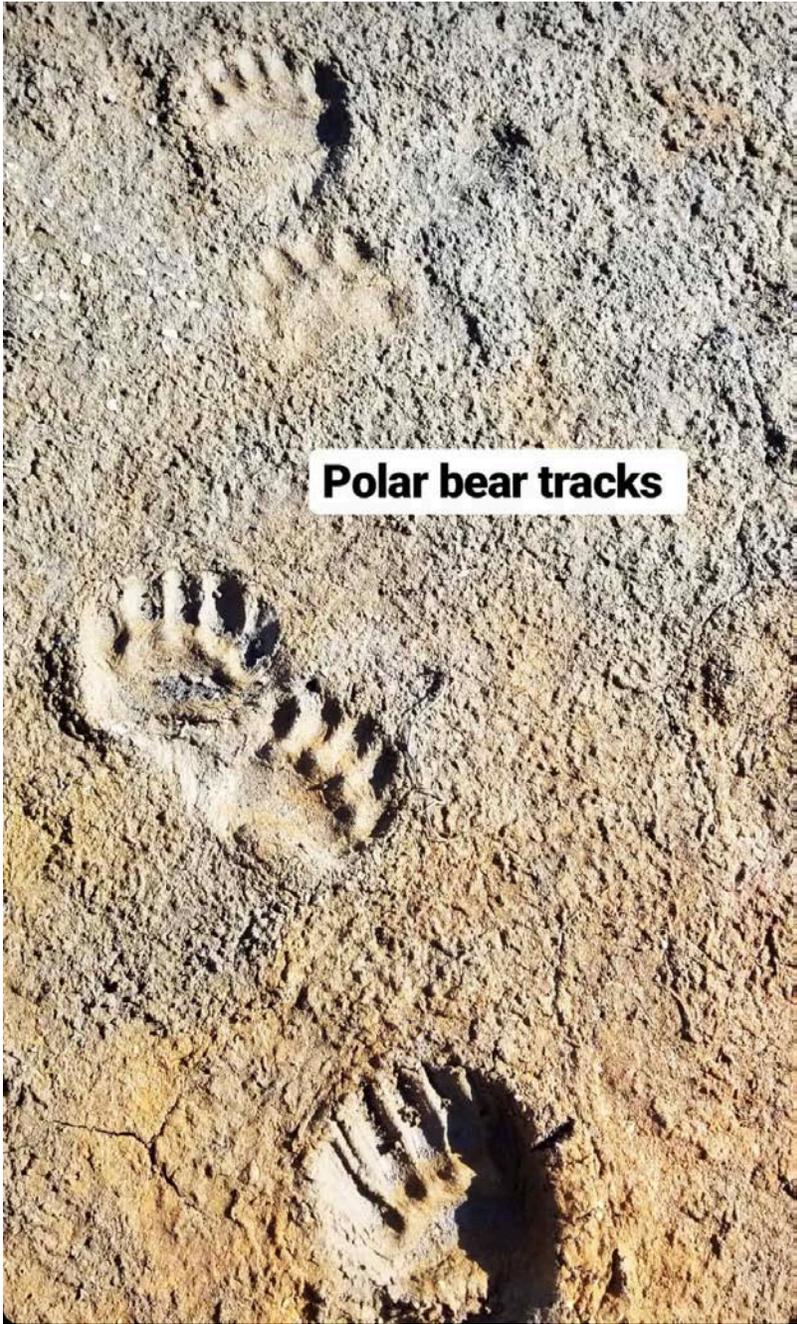
# National Geographic Learning Framework



NATIONAL GEOGRAPHIC   LEARNING FRAMEWORK   ATTITUDES				
GRADE	<b>CURIOSITY</b> An explorer remains curious about how the world works throughout his or her life. An explorer is adventurous, seeking out new and challenging experiences.	<b>RESPONSIBILITY</b> An explorer has concern for the welfare of other people, cultural resources, and the natural world. An explorer is respectful, considers multiple perspectives, and honors others regardless of differences.	<b>EMPOWERMENT</b> An explorer acts on curiosity, respect, responsibility, and adventurousness and persists in the face of challenges.	
NATIONAL GEOGRAPHIC   LEARNING FRAMEWORK   KNOWLEDGE				
GRADE	<b>THE HUMAN JOURNEY</b> An explorer understands where we came from, how we live today, and where we may find ourselves tomorrow.	<b>OUR CHANGING PLANET</b> An explorer understands the amazing, intricate, and interconnected systems of the changing planet we live on.	<b>WILDLIFE AND WILD PLACES</b> An explorer reveals, celebrates, and helps to protect the amazing and diverse creatures we share our world with.	
NATIONAL GEOGRAPHIC   LEARNING FRAMEWORK   SKILLS				
GRADE	<b>OBSERVATION</b> An explorer notices and documents the world around her or him and is able to make sense of those observations.	<b>COMMUNICATION</b> An explorer is a storyteller, communicating experiences and ideas effectively through language and media. An explorer has literacy skills, interpreting and creating new understanding from spoken language, writing, and a wide variety of visual and audio media.	<b>COLLABORATION</b> An explorer works effectively with others to achieve goals.	<b>PROBLEM SOLVING</b> An explorer is able to generate, evaluate, and implement solutions to problems. An explorer is a capable decisionmaker—able to identify alternatives and weigh trade-offs to make a well-reasoned decision.

# Piaget's Learning Theory

- Assimilation: fitting new information into existing schema
- Accommodation: altering schema or creating new schema to fit new material
- Equilibration: search for balance between existing schema and new input
- **Disequilibrium: lack of balance between existing schema and new input**
  - Piaget hypothesized that disequilibrium motivates us to engage in learning and work to establish equilibrium by means of accommodation



# Polar Bear Threats

- **Ocean Contamination**

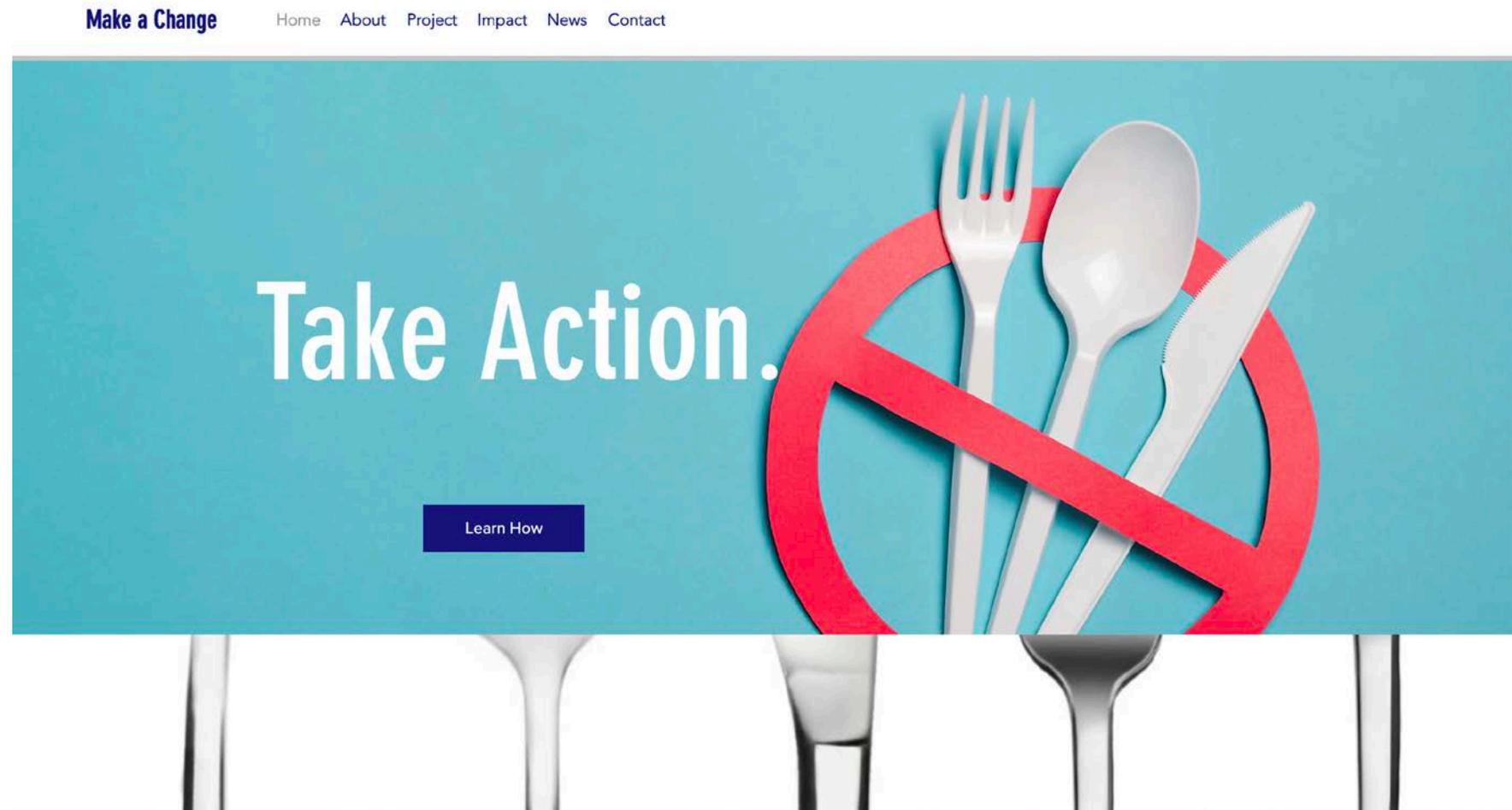
- Ocean currents carry pollutants into the Arctic where they remain.
- Former Soviet Union dumped radioactive waste in the Barents Sea.
- The Arctic food chains are among the most contaminated in the world and the polar bear is at the top of its food chain (high tissue concentration of fat-soluble organic pollutants and hormonal imbalances evidenced in Svalbard polar bears).

- **Diminishing Sea Ice**

- Less ice = less foraging habitat  
(More bears to sharing less space)
- Dangerous for females with cubs to be forced into close proximity to males OR forced further away from remaining feeding habitat (i.e. on land/in conflict with humans)

# Steps to Schoolwide Action

- 1. Introduce the problem
- 2. Investigate the problem
- 3. **Perspective Taking**
- 4. Understand Impact
- 5. Imagine Solutions
- 6. **Take Action**
- 7. Engage the Community
- 8. Inspire Change



# Step 1: Introduce the Problem

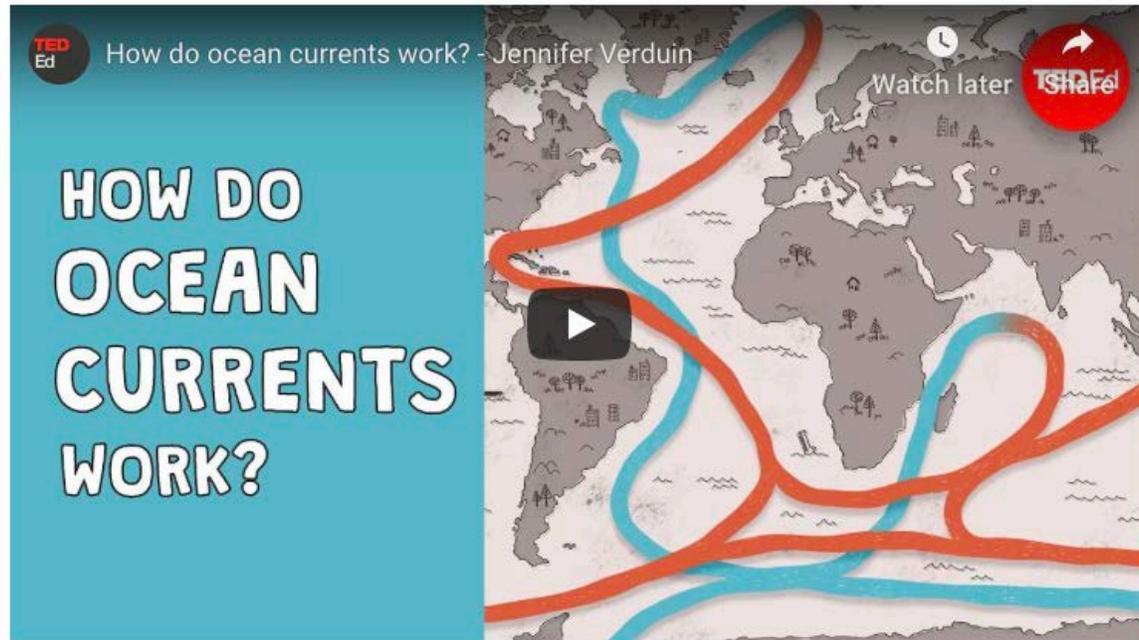


Photo by Maya Santangelo

Ms. Warmouth traveled to the High Arctic near the North Pole. No humans live there but she found plastic garbage washing up on the shorelines of remote islands. One of the items in the picture looks a lot like the plastic spoons we use every day at school. **Where did it come from and how did it get there?**

# Step 2: Investigate the Problem

Students were challenged to conduct their own research to develop theories about how the spork and other plastics got to the Arctic. Students submitted their theories and those theories drove the line of inquiry.



Special Assignment from Ms. Warmouth!

1. Revisit [www.globalwarmouth.com](http://www.globalwarmouth.com)
2. Refresh on Polar Bear facts at <https://kids.nationalgeographic.com/animals/mammals/polar-bear/>

3. Consider HOW/WHY I found a plastic spork in the High Arctic Ocean where NO PEOPLE live. How do you think it got there? How can we stop this from happening?

people here in WA. littered plastic things like sporks in to the ocean & the waves & the currents pushed them in to the arctic.

## Step 3: Perspective Taking



# Step 4: Understand Impact



# We are thinking about our own plastic use.

- Our school district serves an estimated 8,700 school meals per day.\*
- At Spruce we use single use plastic sporks for each meal.
- *We estimate* that we are throwing away as many as **400** plastic sporks per day at Spruce.



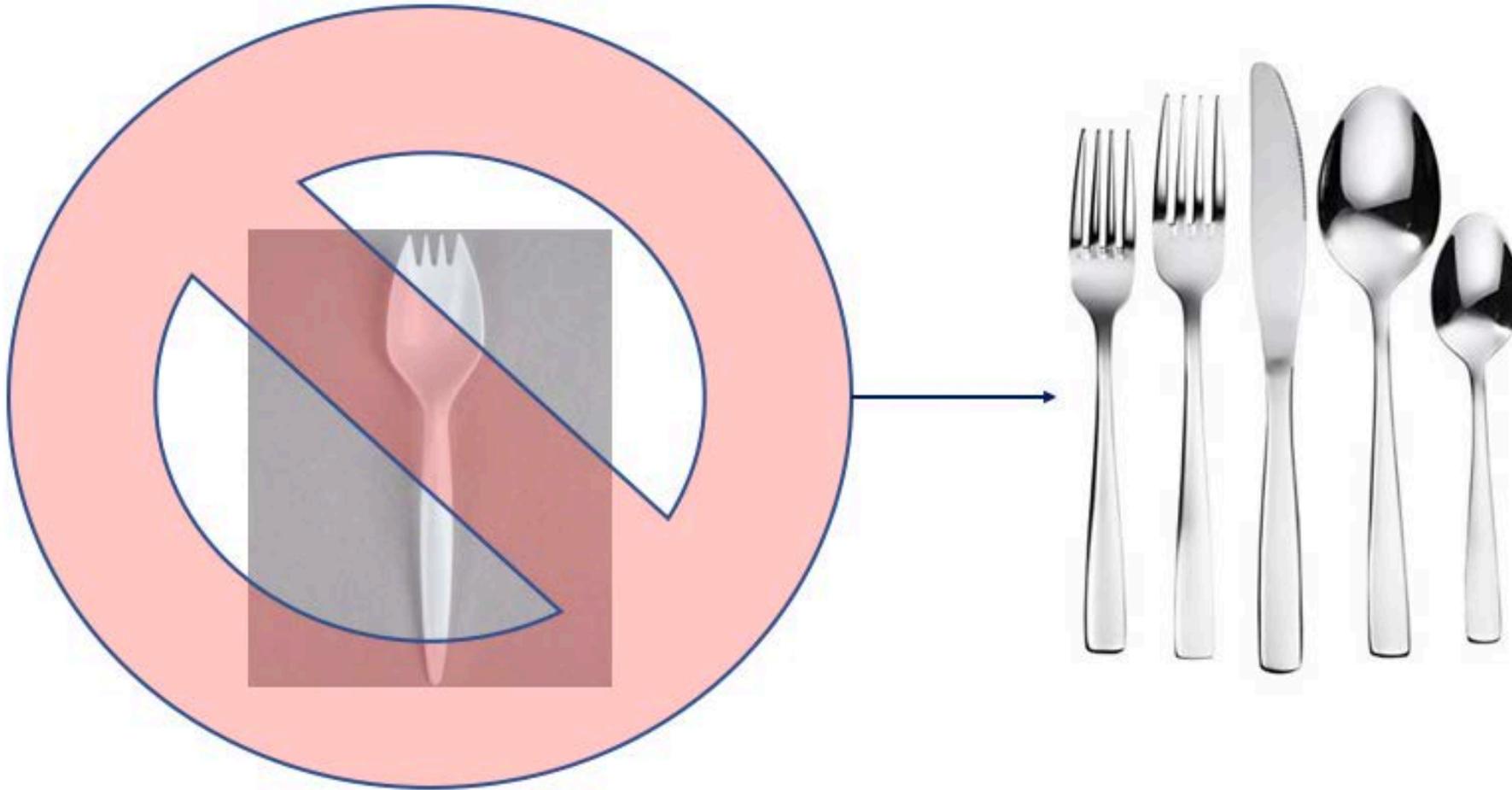
\*Source: [https://www.edmonds.wednet.edu/departments/food\\_nutrition\\_services](https://www.edmonds.wednet.edu/departments/food_nutrition_services)

# MATH TIME!

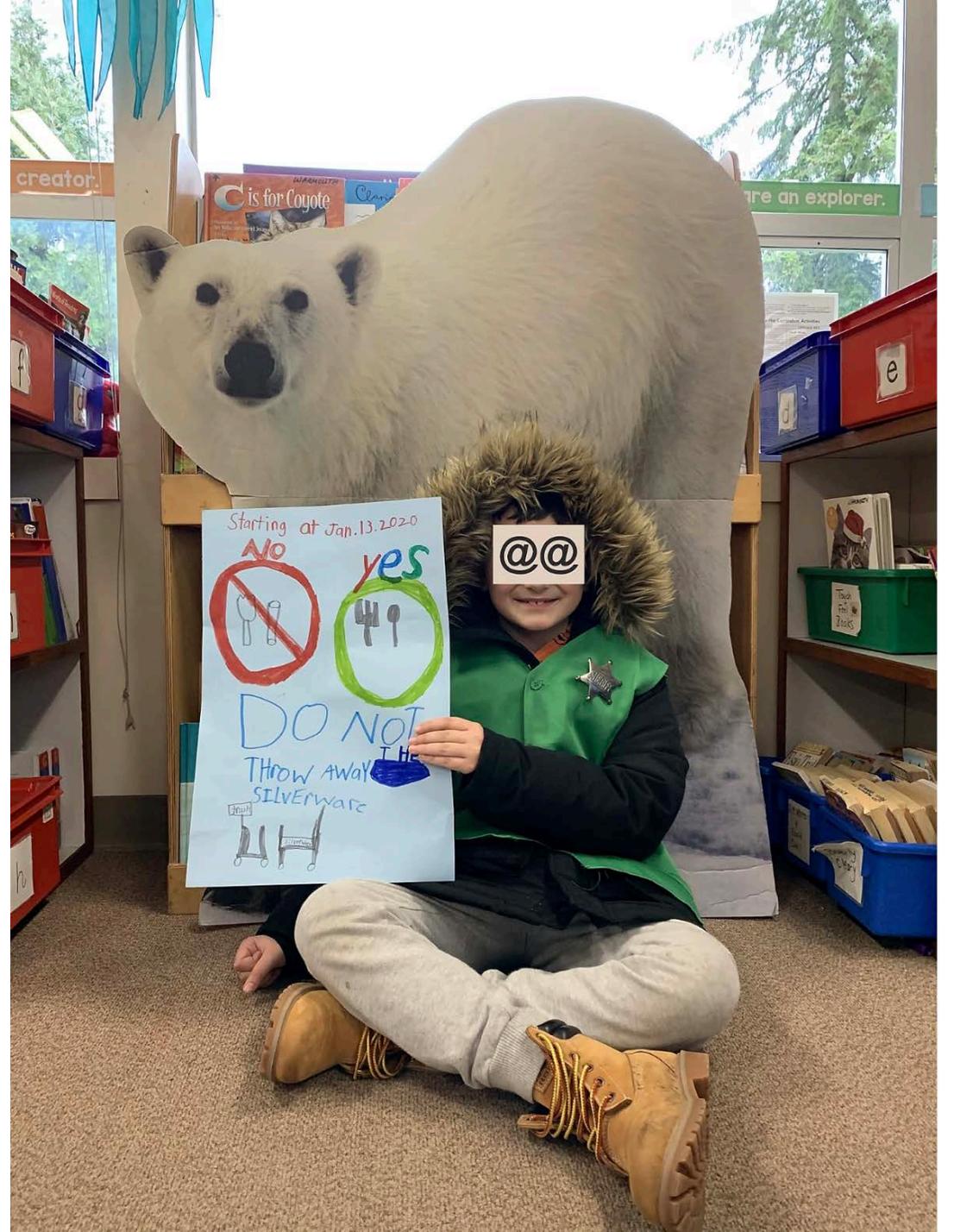
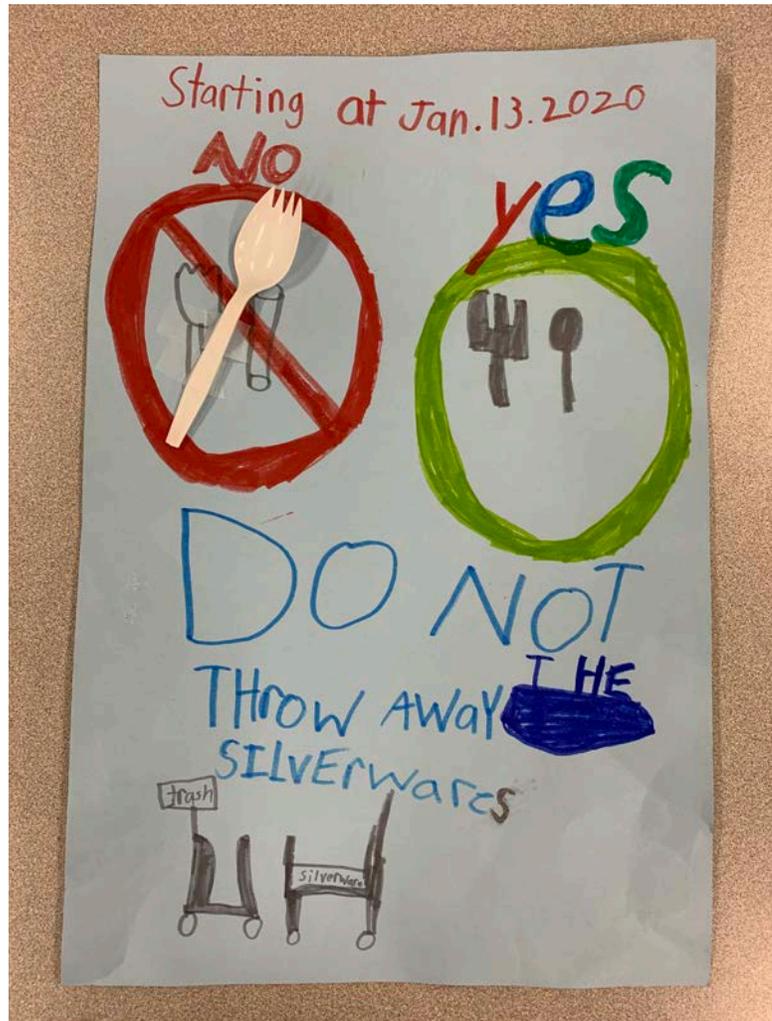


400 sporks x 181 days of school =  
**72,400 Spruce sporks per school year**

# Step 5: Imagine Solutions



# Step 6: Take Action



# Step 7: Engage the Community

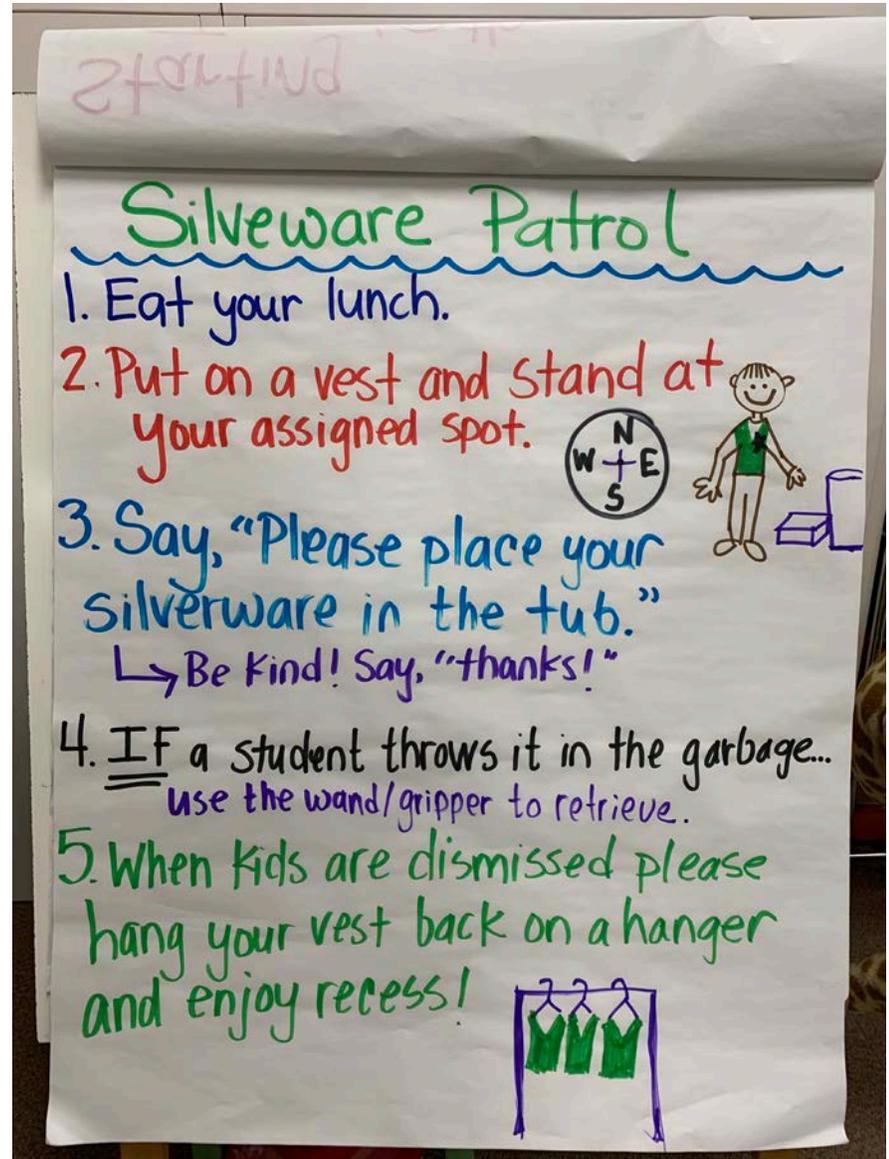
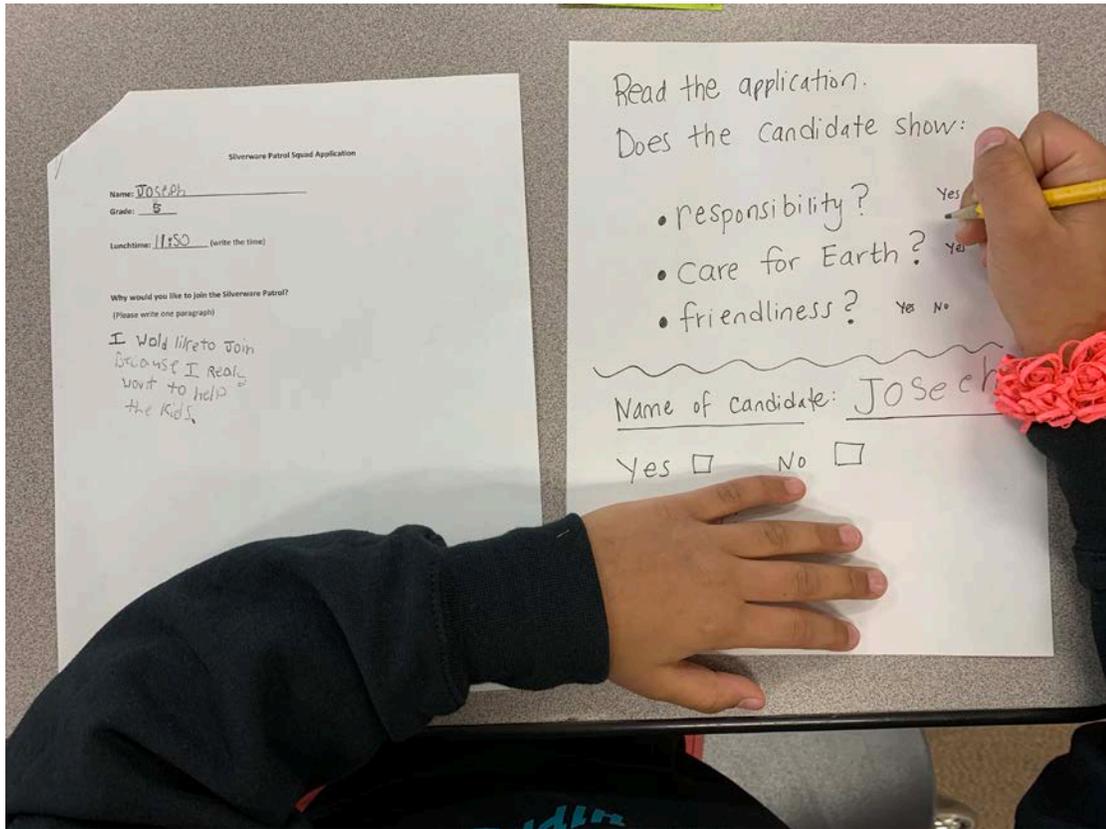
Would you like to join the Silverware Patrol?

We'll stand near garbage cans show kids WHERE to place the silverware.

**You'll get to wear a vest and badge!**



CONTACT  
MS.  
WARMOUTH  
TO APPLY!



# Step 8: Inspire Change

[Learn How](#)



We are second graders who care about our planet.

We changed our school's policy from single use plastic to reusable silverware and **YOU** can, too!



Dr.  
Martin Luther  
King Jr. had a  
dream My dream  
is please keep the  
oceans alive because  
we care about the  
earth and you will  
make the earth  
better if you just  
care about the  
earth

 I Love the  
earth!!!



# Questions?

- [JennieMW@gmail.com](mailto:JennieMW@gmail.com) 
- [www.globalwarmouth.com](http://www.globalwarmouth.com) 
- [www.silverwarepatrol.com](http://www.silverwarepatrol.com) 



# Human Data Collection

- Examining the notion of “Environmental Epiphanies”
- Sense of connection vs. expectation
- Conservation attitudes/efforts/behaviors beyond expedition





**GET  
THE FORK  
OUT OF  
MY OCEAN.**

**Take the Pledge**  
[natgeo.com/fork-pledge](http://natgeo.com/fork-pledge)



PLANET OR PLASTIC?

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**Help us prevent 1 billion items from  
reaching the ocean by 2020.**

**328,104,359**

PLASTICS REDUCED TO DATE



BEGIN THE PLEDGE

Svalbard  
Global  
Seed Vault

