

# Education for Earth's Sake: How PopEd Supports Teachers & Inspires Future Generations

---

CAROL BLIESE

DECEMBER 10, 2020

# Population Education

---

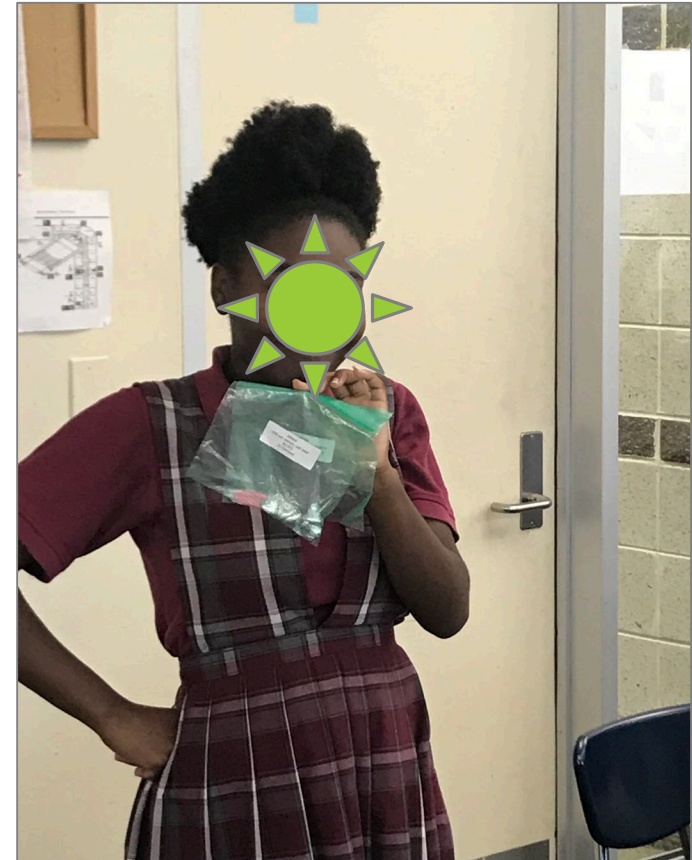
**MISSION:** Provide quality training and teaching materials for educators to help them teach about population and related topics effectively in the classroom.



# Why We Do This Work

---

**VISION:** We want every young person prepared to tackle global problems and to be positively engaged in their communities as the next generation of voters, parents, leaders, and policy makers.

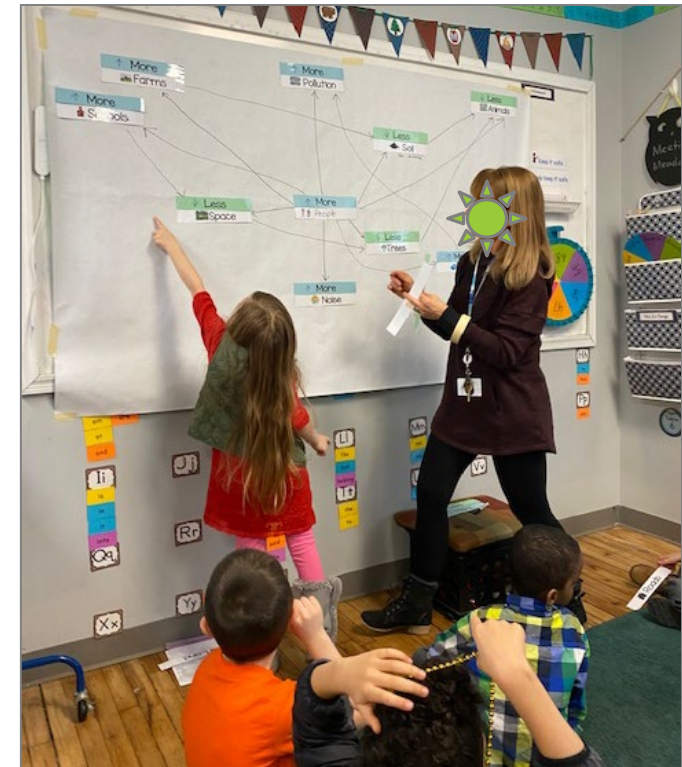


# PopEd is Unique

We are the only national organization focused on educating young people about population.

*Love the idea of making students aware of these topics. I don't think there's enough information or education in schools on this. We need to start when they're young to educate [students] about these ideas.*

- Teacher, WI Gifted & Talented Conference



# Today's population

---



**7,787,808,195**

<https://populationeducation.org/current-population/>



# The \$1,000,000,000 Question

---

**Your rich uncle has left you \$1 billion. But there's a catch:**

- You must count it at the rate of \$1 per second.
- You must count it for 8 hours a day.
- You can only spend the money once you count the entire sum.

**Do you accept this offer?**



# How long would it take to count \$1 billion?

---

➤  $1,000,000,000 \text{ seconds} \div 60 \text{ seconds} = \mathbf{16,666,667 \text{ minutes}}$

➤  $16,666,667 \text{ minutes} \div 60 \text{ minutes} = \mathbf{277,778 \text{ hours}}$

➤  $277,778 \text{ hours} \div 8 \text{ hours} = \mathbf{34,722 \text{ days}}$

➤  $34,722 \text{ days} \div 365 \text{ days} = \mathbf{95.13 \text{ years}}$

## Rate

- \$1/ second
- 8 hours/ day

# The \$1,000,000 Question?

---

**What if your uncle offered you \$1 million instead?**

- But of course, with the same contingencies!
- \$1/second; 8 hours a day

**Do you accept this offer?**





# How long would it take to count \$1 million?

---

➤ 1,000,000 seconds ÷ 60 seconds = **16,667 minutes**

➤ 16,667 minutes ÷ 60 minutes = **278 hours**

➤ 278 hours ÷ 8 hours = **34.7 days**

## Rate

- \$1/ second
- 8 hours/ day

# Contextualizing Large Numbers: TIME

---

**1,000,000,000**

vs.

**1,000,000**

**95  
YEARS**

**35  
DAYS**



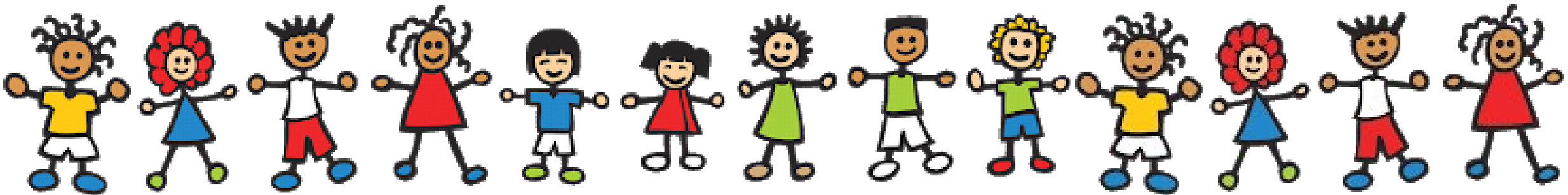
# Contextualizing Large Numbers: AGE

---

1,000,000,000 seconds old → **31 ½ YEARS**

VS.

1,000,000 seconds old → **11 ½ DAYS**



# Population Education

---

**MISSION:** Provide quality training and teaching materials for educators to help them teach about population and related topics effectively in the classroom.





# Success!

---

*Wow! What a marvelous workshop this morning. You provided such an engaging introduction to Population Education that was helpful, interesting and that modeled best practices in pedagogy online.*

*The activities you chose were ideal for this class. It felt so "customized" and you two connected with such energy and charisma. You were great and I am so so grateful.*

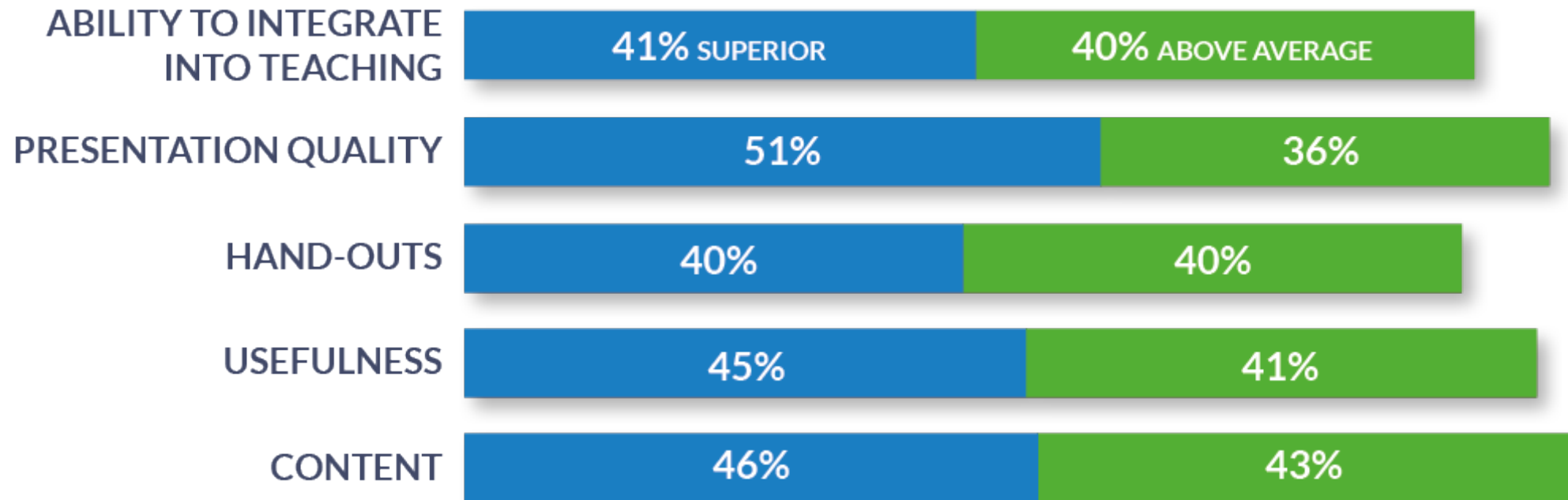
- Professor, School of Education, UNC

*I have to say the webinar was absolutely amazing! I was originally concerned with the virtual approach to the training. However, the lessons and activities were very well structured for the online environment. It was impressive and the students were amazed with the resources.*

*This is such an impactful and meaningful professional development. Keep doing the amazing work. I'm a huge fan and will keep reaching out to you all as long as I am teaching!*

- Instructor, College of Education, USF

In comparison to other professional development workshops you've attended, how did the Population Education workshop compare in terms of...

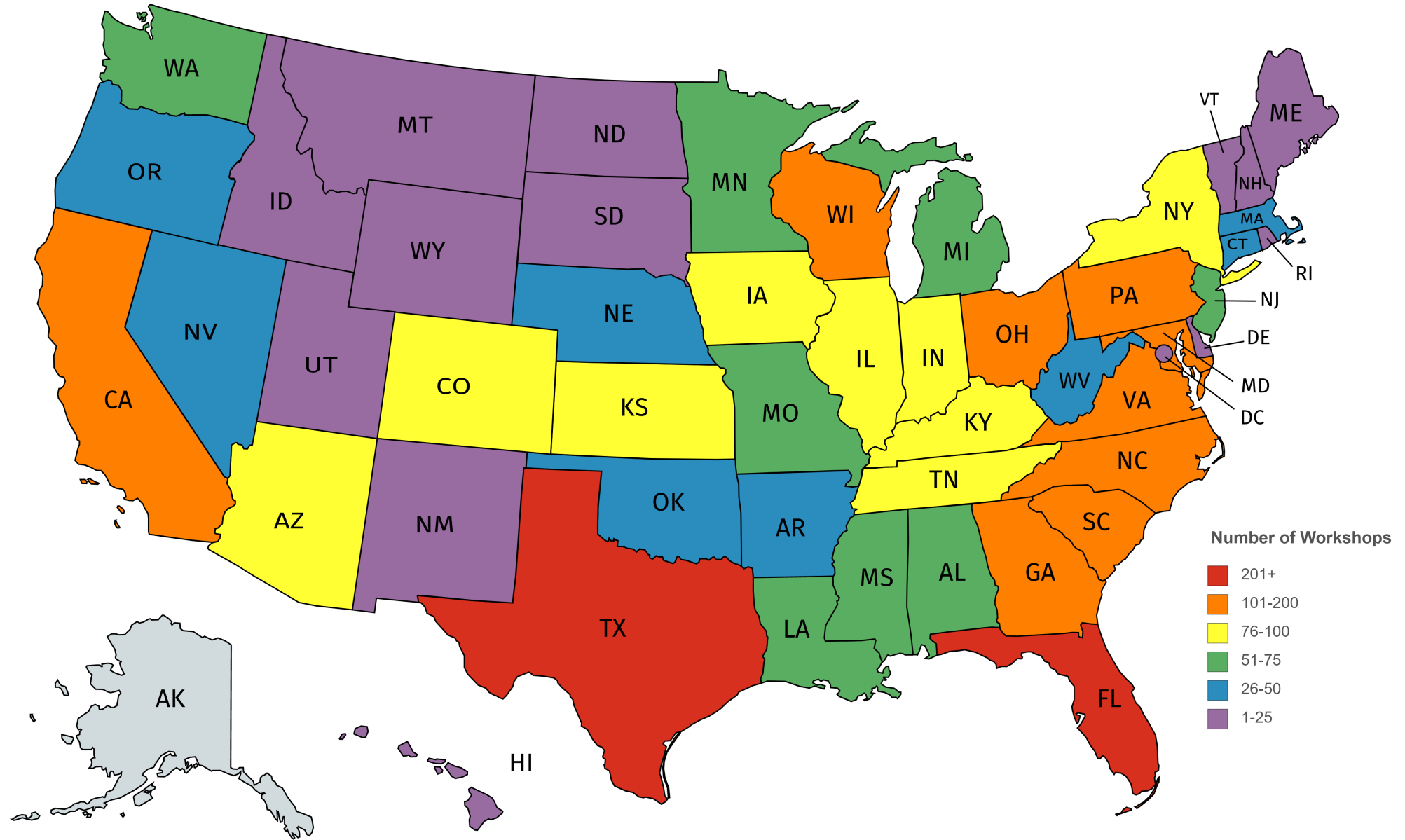


# Workshop Reach



Year	Total Workshops	Teachers Trained
1986	28	597
1988	46	956
1990	71	1,714
1992	136	3,200
1994	165	3,620
1996	204	4,407
1998	330	7,450
2000	413	8,200
2002	635	13,514
2004	539	12,200
2006	509	12,106
2008	524	11,003
2010	537	11,239
2012	542	10,925
2014	546	10,594
2016	750	12,885
2018	732	12,539
2019	709	12,422





# Resources on Population *AND*...

---

## Environmental



Resource Use



Habitat & Biodiversity



Water



Agriculture



Climate



Energy

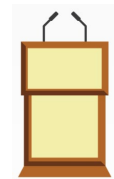
## Societal



Urbanization



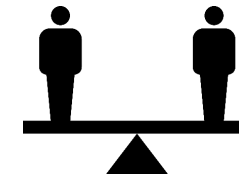
Public Health



Representation



Fertility & Mortality



Human Rights



Education

# Most Common Subjects

---

## Science

- Environmental Science
- Earth Science
- Ecology
- Biology
- AP Environmental Science

## Social Studies

- Geography
- History
- Civics
- Economics
- AP Human Geography

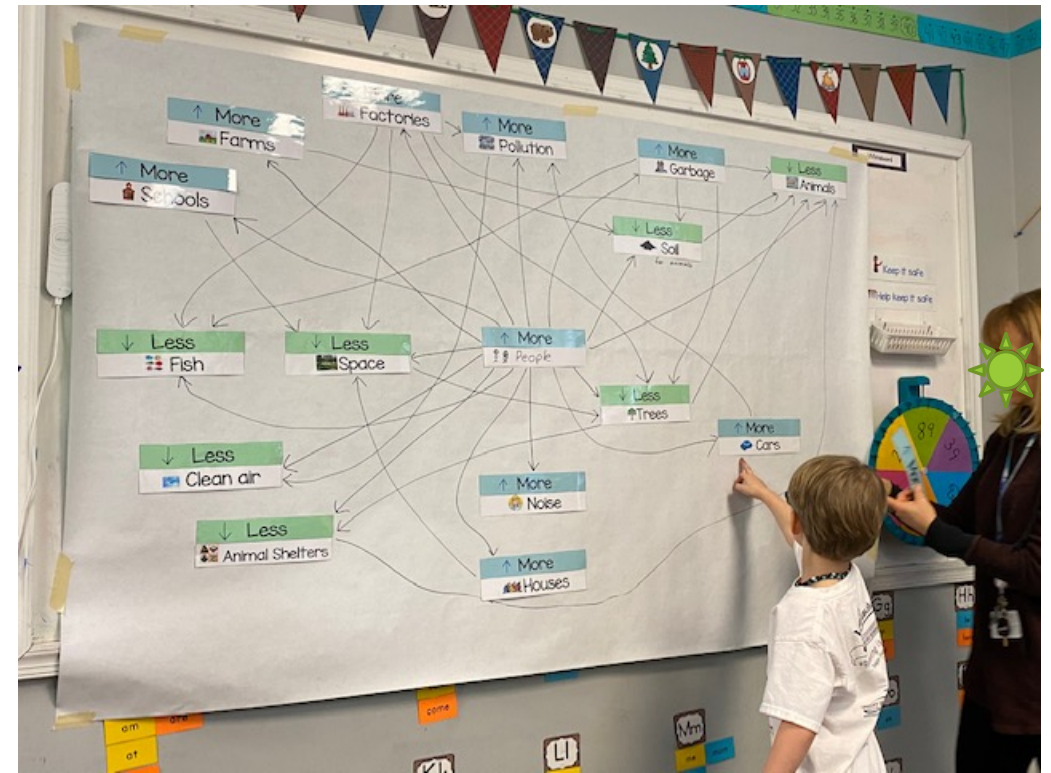
## Math

- Probability & Statistics
- Real-world connections
- Data literacy

## Family & Consumer Sciences

## Supplemental ESOL

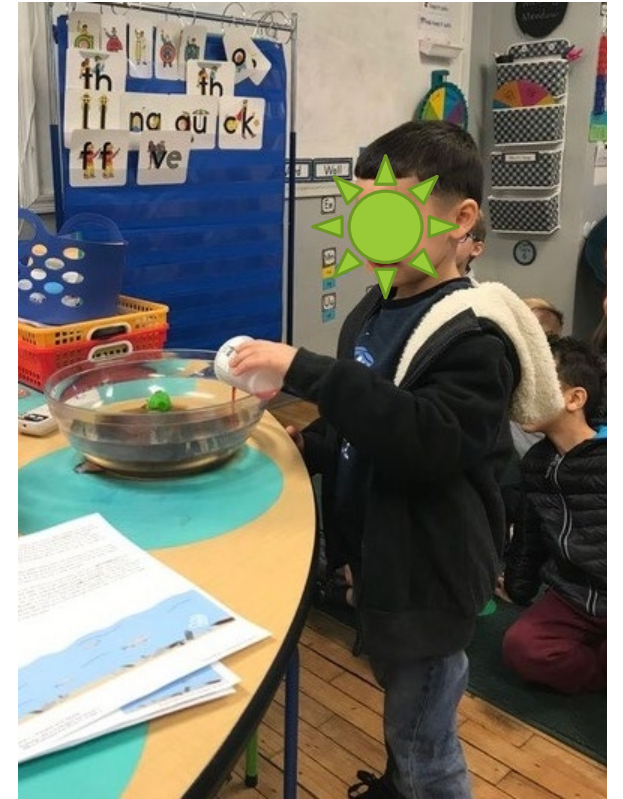
# Kindergarten – 12<sup>th</sup> Grade



# Why Teachers Love PopEd

---

- Interdisciplinary
- Relevant and important
- Scalable
- Actionable
- Engaging and fun!



# Birth and Death Rates

---

## **Birth Rate:**

Number of births per  
1,000 annually

## **Death Rate:**

Number of deaths per  
1,000 annually

# Birth and Death Rates

---

## **Birth Rate:**

Number of births per  
1,000 annually

**Global Birth Rate (2020)**

**19**

## **Death Rate:**

Number of deaths per  
1,000 annually

**Global Death Rate (2020)**

**7**

# Birth and Death Rates

---

## Birth Rate:

Number of births per  
1,000 annually



**Global Birth Rate (2020)**

**19**

## Death Rate:

Number of deaths per  
1,000 annually



**Global Death Rate (2020)**

**7**



# Arable Land

---

**How much of the Earth is used for agricultural land?**

**How does my diet impact arable land?**



# Considering Diets

---

## How many people could we feed?

Current world grain harvest is 2 billion tons.

(1 ton = 907 kg)

What if everyone consumed like the average person in:

- United States: 800 kg/person → **2.3 billion people**
- Italy: 400 kg/person → **4.5 billion people**
- India: 200 kg/person → **9.1 billion people**

# World Population “dot” video

---



# More Than Just Lesson Plans

---

- Topical Background Readings
- Case Studies
- Posters
- Infographics
- Digital Tools
- Interactive Website
- Student Video Contest



# Keeping It Current

- Trends in education
- Current events
- New technologies

## Teachers who use PopEd report that the resources...



Effectively engaged my students

35%  
STRONGLY  
AGREE

60%  
AGREE



Increased my students' awareness of population issues

42%  
STRONGLY  
AGREE

53%  
AGREE



Increased critical thinking and/or problem solving skills

31%  
STRONGLY  
AGREE

52%  
AGREE



**Dr. Kate Silvis**  
La Roche College, PA



**Anita Lewis**  
Westbrooke Intermediate, TX



**Dr. Jesse Haight**  
Clarion University, PA



**Sandra Vargas-Gutierrez**  
Flora Ridge Elementary, FL

# We Couldn't Do It Alone



**Holli Gonzalez**  
CSU Bakersfield, CA



**Dr. Khodi Kaviani**  
Central Washington University, WA



**Dr. Jim Lane**  
Columbia College, SC



**Lauren Johnson**  
Oxbow Meadows Environmental  
Learning Center, GA

# Thank You!

---

Carol Bliese  
Senior Director of Teacher Programs

*Questions? Email: [engage@popconnect.org](mailto:engage@popconnect.org)*

 @pop\_education

 [Facebook.com/PopulationEducation](https://www.facebook.com/PopulationEducation)

 @PopulationEd

 [Pinterest.com/PopulationEducation](https://www.pinterest.com/PopulationEducation)

[www.PopulationEducation.org](http://www.PopulationEducation.org)

 POPULATION EDUCATION