



The Population Educator

Teacher Training and Resources from **Population Connection**

The Earth Gets a Check-up

Updates on the Health and Well-being of our Planet

"The doctor will see you now"

When we're sick, we see a doctor. When the doctor prescribes something, we take it. What if we used the same logic for the Earth? What would a doctor's diagnosis be for our planet?

"Looks like you've grown since your last visit"

Since reaching 6 billion people in 1999, the world's population has risen to 6.6 billion people and is likely to reach 9.2 billion in 2050, with almost all growth occurring in less-developed countries.

"Take a deep breath"

There has been a 12.5% increase of carbon dioxide in the atmosphere since the 1990s, primarily because of fossil fuel use.

Globally, the environment attributes to more than 1.5 million deaths per year from respiratory infections.

"You've got a bit of a fever"

Eleven of the last twelve years were the hottest years since temperature record-keeping began in 1866.



"You seem a little under the weather"

There has been an increase in tropical storms over the last ten years and the trend is expected to continue as our oceans continue to get warmer.

"I notice some swelling around your urban areas"

Today 48.7% of the world's population lives in urbanized areas and it is projected to rise to 60% by 2030.

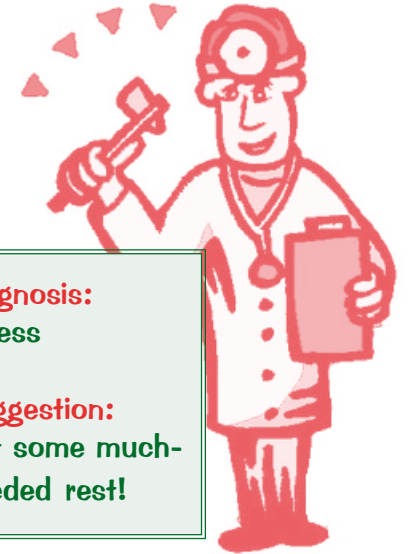
1/6 of the world's population is living in urban slums where they live without proper sanitation, water, urban amenities, employment, or security.

"I'm concerned about your recent weight loss - parts of you are disappearing!"

As many as 90% of all the ocean's large fish have been fished out and at their current rate of depletion, the oceans could be out of seafood species by 2050!

In 50 years, most polar bears will be living in zoos, as their habitats will have disappeared due to global warming. Fire ants, however, are expected to thrive under the same climate conditions.

At the current rate of deforestation, the world's rain forests will disappear within 100 years. Over half of the world's plants and animals live in the rainforests.



Diagnosis:
Stress

Suggestion:
Get some much-needed rest!

"I do see some improvements since your last exam"

The E.U. has recently pledged to cut greenhouse gas emissions by 30% of 1990s values if other industrialized countries, like the U.S., make similar efforts.

From Hollywood to the global market, environmental awareness has grown immensely in recent years, inspiring a younger generation to go for the green!

An apple a day...

Our planet is feeling the burden of our growing population, one degree at a time. But it's not hopeless! Every action, positive or negative, impacts the planet's ecosystems. Today humanity's ecological footprint is over 23% larger than what the planet can regenerate - no wonder it's feeling stressed! Each of us can consider ways to lessen our impact on the Earth's resources, making a healthier, happier planet!



Resources

Celebrate National Environmental Education Week!

WEBSITE: www.eeweek.org

The National Environmental Education and Training Foundation (NEETF) is sponsoring National Environmental Education Week starting April 16th, leading up to Earth Day on April 22. The website has ideas for projects for the week and for Earth Day, plus links to supporting organizations with environmental education materials. Also, check-out www.populationeducation.org for more activities to do with your students during the week.



FREE Resources and Earth Week Activities On-Line!



How Big is Your Ecological Footprint?

www.myfootprint.org

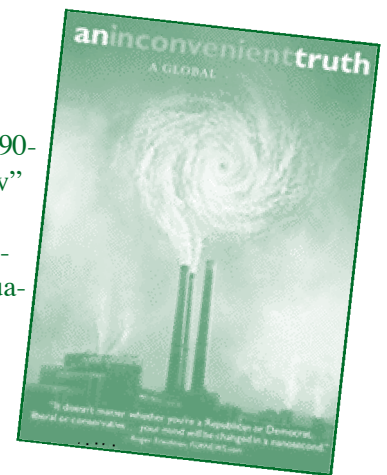
Take the Ecological Footprint quiz to estimate how much land and water it takes to support your lifestyle- you might be surprised! After you've taken the quiz, go to www.populationeducation.org to download a free copy of our activity, "Watch Your Step"- part of our *300 Million in the USA* activities. This activity will teach students about the concept of the ecological footprint, compare their own to those of students in other nations, and explore why it is an important measurement of their impact on the Earth's resources. The quiz was developed by Redefining Progress and made available through Earth Day Network.

Educating About the Truth!

www.inconvenienttruth.com.au

www.participate.net

You've seen it on the big screen, now bring An Inconvenient Truth to your classroom! The 90-minute film, available on DVD, is a version of former Vice President Al Gore's "slide show" on climate change. A free study guide to accompany the film can be downloaded for your class at www.inconvenienttruth.com.au. The guide breaks the movie into manageable sections, allowing students to deconstruct the facts from the movie's skillful manner of persuasion. Also, check-out Participate.net for AIT programs built around the film. You'll find activities ranging from one-day lessons to semester-long programs. Each can be downloaded for free just by registering at www.participate.net/educators.



Up-dated "Earth Matters" in the Works

We are beginning work on a new CD version of our popular secondary curriculum, *Earth Matters: Studies for Our Global Future*. Our last edition was published in 1999 and there's much to be updated along with adding new social topics such as health and urbanization. If you are familiar with the book and have any suggestions or comments on new topics that should be covered, favorite activities or ones that you'd like to share with us for consideration, please email poped@popconnect.org- we appreciate the help!



USA Population Circle*

Introduction:

Students may know that the U.S. population is around 300 million, but it is instructive to put that number in the context of our history. By simulating population growth since 1790, students discover that most of our growth was recent.

Materials:

Chalk, yarn, or tape counting cards (see table)

*1790-1840 are represented by one person

1790 (sitting)
1825 (kneeling)
1840 (standing)

1860	1875	1890
1900	1910	1920
1930	1940	1950
1955	1960	1965
1975	1980	1985
1990	1995	2000
2005	2010	2020
2025	2030	2035
2040	2045	2050

Procedure:

1. Make the Population Circle counting cards as shown.
2. Using chalk, yarn, or tape, place a 10-foot diameter circle (if using yarn, measure 30 feet of yarn and tie the ends together) on the floor, and ask the class to gather around it. Explain to the class that the circle represents all of the land in the U.S., and that you will be looking at how the population of the country changed since our first census was taken.
3. Distribute the 28 counting cards. Each card represents 15 million people. One student will get a special card that represents the early growth until 1840. That student will need to first sit in the circle to represent four million people, then kneel in the circle to represent 10 million people, and then stand to represent the full 15 million people in 1840. If you have fewer than 28 students, you may use chairs or some other item to represent additional people. If you have more than 28 students, you may ask additional students to represent trees or animals inside the circle.
4. Ask the students to imagine that they are back in the year 1790 – the year the first U.S. Census was taken.

Ask the student with the “Early Years” card to sit in the circle. Explain that this represents everybody who lived in the U.S. at the time of our first census, when our population was about 4 million (3,929,214) people.

6. Tell the class, “We’ll be counting by fives through the years from 1790 to the present, and then forward to 2050 to find out how our population grew and is expected to grow in the future. As we count, listen carefully for the number on your card. When we get to your year, step into the circle.”

7. As a group, start counting at a comfortable pace. Stop when you reach 2050.

Discussion Questions:

1. What did you observe about how our population changed over time?

It took a while before more than one person was in the circle. Most of our growth has been recent.

2. After we started counting, what year did we have a standing person (15 million people) in our circle? From the start, how long did it take to reach 15 million people?

The first person in our circle stood up in 1840. It took 50 years (1790 - 1840) to grow to 15 million people.

3. As we neared the present, how long was it taking to add another 15 million people to the U.S. population?

Between 5 and 10 years. Between 1940 and the present, we added at least one person to the circle every ten years.

4. How would you characterize the forecasted growth from the present through the year 2050?

Growth is expected to continue at a steady clip, at a pace similar to that of our last few decades.

5. What will happen if we continue to grow at this rate?

The U.S. will become more and more densely populated.

*The full text of “USA Population Circle,” including the counting cards, can be downloaded for free at www.populationeducation.org.

Population Education Program
Population Connection
2120 L St., NW
Suite 500
Washington, DC 20037



Non-Profit Org.
U.S. POSTAGE
PAID
Washington, DC
Permit 124



The Population Educator

Teacher Training and Resources from Population Connection



Workshops

Check Us Out: To see how hands-on population activities can fit into your classroom, attend a workshop! Our staff and volunteer trainers will conduct teacher trainings at the following conferences in the next few months. Visit the website of the sponsoring organization to find out how to attend the conference. To schedule a teacher training workshop for your education methods class, conference or in-service day visit www.populationeducation.org or call (800) 767-1956.

4/12/2007	Ohio Association for the Education of Young Learners	Columbus, OH
4/13/2007	Pennsylvania Association of Environmental Educators	Wilkes-Barre, PA
4/13/2007	Ohio Council for the Social Studies	Worthington, OH
4/13/2007	Rocky Mountain/Great Plains Reg. Social Studies Conference	Albuquerque, NM
4/20/2007	Minnesota Science Teachers Association	Brainerd, MN
4/26/2007	Environment Education Council of Ohio	Dayton, OH
4/27/2007	Wisconsin Association for Middle Level Education	Oconomowoc, OH
4/27/2007	Colorado Alliance for Environmental Education	Winter Park, CO
4/28/2007	LAGEA-NSU 4th Annual Social Studies Summit	Natchitoches, LA
4/28/2007	Association for Environmental and Outdoor Education	Sonora, CA
6/9/2007	Florida League of Middle Schools	Sarasota, FL
6/28/2007	Conference for the Advancement of Science Teaching	San Antonio, TX
7/19/2007	Conference on Social Change	Minneapolis, MN
7/25/2007	National Marine Educators Association	Portland, ME
9/15/2007	Kentucky Association of Environmental Educators	Cave City, KY
10/4/2007	National Council on Economic Education	Denver, CO
10/11/2007	Northwest Mathematics Conference	Bellevue, WA
10/15/2007	Iowa Council of the Social Studies	Coralville, IA
10/18/2007	National Science Teachers Association	Detroit, MI
10/18/2007	Iowa Science Teachers Section (Iowa Academy of Sciences)	Cedar Rapids, IA
10/19/2007	Ohio Council of Teachers of Mathematics	Columbus, OH
10/19/2007	Midwest Environmental Education Conference	Stevens Point, WI
10/25/2007	Florida Association of Science Teachers	Orlando, FL
10/26/2007	California Science Teachers Association	Long Beach, CA
11/1/2007	New York State Outdoor Education Association	Hunter, NY
11/7/2007	Pennsylvania Council of Teachers of Mathematics	Valley Forge, PA
11/8/2007	National Science Teachers Association	Denver, CO
11/8/2007	National Middle School Association	Houston, TX
11/15/2007	North American Association for Environmental Education	Virginia Beach, VA
11/15/2007	Science Teachers Association of Ontario	Toronto, ON
11/29/2007	National Association of Biology Teachers	Atlanta, GA
11/30/2007	National Council for the Social Studies	San Diego, CA
12/6/2007	National Science Teachers Association	Birmingham, AL

*Go to www.populationeducation.org for complete list of upcoming conferences.

Don't Forget
 **to Renew!**

The Population Educator subscribers: if the word "RENEW" appears to the right of your name on the mailing label, you will need to contact us at 1-800-767-1956 or e-mail PopEd@popconnect.org to continue your subscription. This will be your last issue unless you renew.

The Population Educator is a publication of the Population Connection Population Education Program, written by Arielle Thibeault and Daniel Ohe, and edited by Pamela Wasserman.