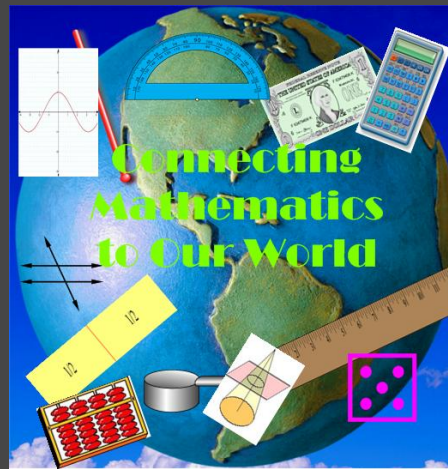


Connecting Mathematics in a World of 7 Billion



Kenneth Jones

Director

Columbus Regional Mathematics Collaborative

Population Education





World Population to Reach 7 Billion

Do we really understand how many people that is?

Do we really understand

Large numbers?

Population Riddles

Population Education



Claiming an Inheritance

- Your rich uncle has just died and left you one billion dollars. If you accept the money you must count it for eight hours a day at the rate of one dollar per second. When you are finished counting, the billion dollars will be yours and only then may you begin to spend it.
- Do you accept the offer?

How old are you if you are a million seconds old?

How old are you if you are a billion seconds old?

Population Education



Doubling Time

- Bacteria multiply by division. One bacterium becomes two. Then two divide into four; the four divide into eight, and so on. For a certain strain of bacteria, the time for this division process is one minute.
- If one of these bacteria are put into a bottle at 11:00 PM, the entire bottle will be full by midnight.
- When would the bottle be half full?
- How do you know?
- If you were a bacterium in the bottle, at what time would you first realize that you were running out of space?

Population Circle



World Population Video

Population Education



What do we know about our world?

- What percent of the world's population lives in the United States?
- Write your estimate to the nearest whole percent on a post-it.
- Randomly select two people from your table to post their data on the chart.



Population Clock

- <http://www.wrldclock.com/>

The Variables

Population

- 1800 population reached 1 billion
- 1930 reached 2 billion
- Currently 6.8 billion
- At current growth rate will reach 13 billion in 58 years
- Largest growth occurs in poorest part of the world

Resources

- Rate at which we use resources is important
- Some resources are limited
- Some resources are renewable

Earth: Apple of Our Eye



- In the US, soil is eroding at 17 times the rate it forms.
- The erosion rate is double in Asia, Africa, and South America
- To feed the 80 million humans added to the population annually, 12 million acres of new land must be put into production.
- Per capita consumption of grain in a low-income nations such as India is 440 lb/year.
- A typical American consumes almost 2000 lb/year.
- The current world grain harvest is 1.85 billion tons.



Room to Grow

The sun shines,
The wind blows,
The rain falls and
The little seed grows!



Some Food For Thought

- North America
- Latin America
- Europe
- Africa
- Asia



Resources

<http://www.populationeducation.org/>

Population Education





You may be only one in
7,000,000,000 but for some
student you may be **THE one!**

Keep Counting!



<http://www.wrldclock.com/>