

THE HISTORY OF US

UNIT 1 STUDENT READING



People
and the
Planet

Lessons for a Sustainable Future

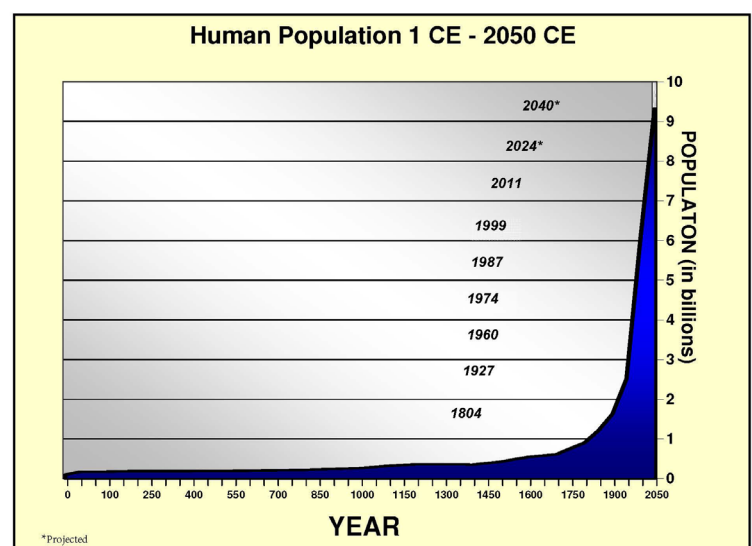
You may have heard the expression, “You’re one in a million!” With the current size of our human **population**, it might be more accurate to say, “You’re one in 7.5 billion (and growing!)” That’s a lot of people sharing our planet and its **finite** resources.

Our global family hasn’t always been so large. In fact, for most of human history, there were probably fewer than a million people alive at any given time. Modern humans evolved in Africa about 200,000 years ago and began **migrating** to other parts of the globe about 100,000 years ago. Our earliest ancestors relied on hunting and gathering their food to survive. Only a finite number of people could be supported on the wildlife in an area for a limited amount of time.

Then just 12,000 years ago, several cultures shifted from hunting and gathering to farming. Humans became the first and only species ever to control its own food supply. Civilizations grew and so did the human population. About 2,000 years ago, the estimated world population was 170 million people (about half the number of people that live in the U.S. today). The largest civilizations at this point in history were the Roman Empire (which spread throughout Europe, the Middle East and Northern Africa) and the Han Dynasty in China. The next 1,700 years were marked by the growth and conquest of empires, global navigation and exploration. We had yet to understand the science behind life and death, or how to prevent and treat most diseases. As a result, many children died young. Our global population grew, but slowly, reaching about 500 million around 1500 and 1 billion by 1804.

POPULATION AND THE INDUSTRIAL REVOLUTION

By the late 1700s, the world was embarking on the **Industrial Revolution**, a period of history in Europe and North America where there were significant advances in science and technology. The Industrial Revolution brought the invention of the steam engine and the use of electricity. During this period, there were also many inventions that promoted longer life. These included improvements in farming, nutrition, medicine and **sanitation**. Now, people were able to fight once-deadly germs, produce more and different kinds of food, and cure more illnesses. Before long, these new



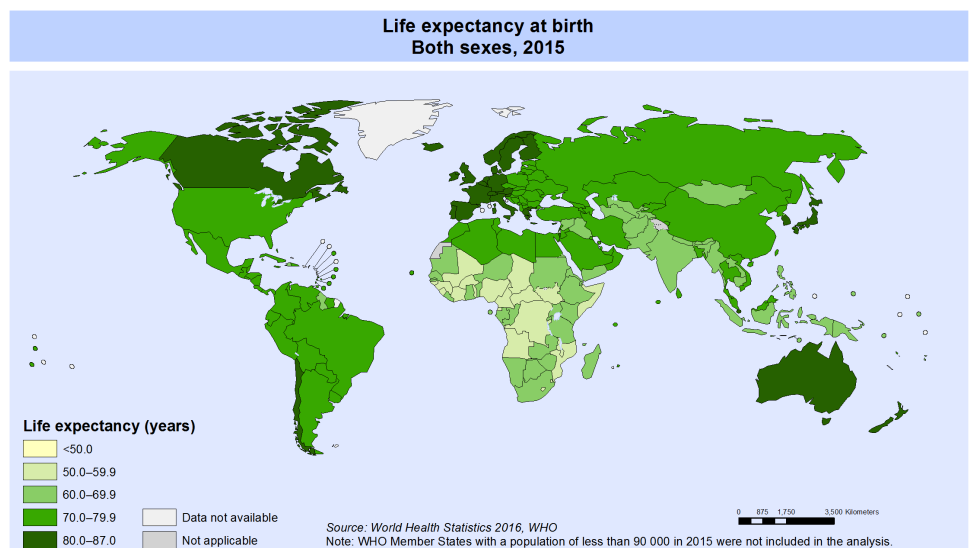
discoveries and inventions spread throughout the world, lowering **death rates**, especially among children, and improving people's quality of life.

Now you might be wondering what happened to the **birth rates** while the death rates were coming down. In Europe and North America, the Industrial Revolution eventually led to people having fewer children because more people were now moving to the cities. New farm machinery, such as the cotton gin and wheat thresher, allowed more crops to be harvested in less time with fewer laborers. At the same time, industrialization created more jobs for people in factories and offices in the growing cities. But because most of the world was not yet **industrialized** and large families were still needed to farm the land, birth rates stayed higher than death rates.

The human population started growing rapidly. By 1927, the world population had doubled to 2 billion (in just 123 years). It doubled again to four billion by 1974 (in just 48 years) This period of rapid growth has sometimes been called a "population explosion," because the population grew **exponentially**, doubling ever faster. In more recent years, the **rate of population growth** has been decreasing, but our population is still growing steadily, adding a billion people every about 12-13 years (5th billion in 1987, 6th billion in 1999 and 7th billion in 2011).

A DIVIDED WORLD

Different populations grow at different rates around the world. This depends on how many children families tend to have and the **life expectancy** (number of years someone is expected to live) of people in different places. In wealthier, or **more developed countries** like the United States or Germany, the average family size is small (2 or fewer children) and the life expectancy is close to 80. In poorer, or **less developed countries**, such as Peru and India, the average family size is larger (2-3 children) and the life expectancy is lower (about 70 years). About a billion people (1/7 of the world population) live in the poorest, or **least developed countries**, where the average family size is much higher (4-5 children) and life expectancy is low (about 63 years). Among the countries in this economic group are Afghanistan, Sudan and Niger.



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Why is there so much difference in family size and life expectancy around the world? These trends seem to be closely tied to economics, education, health and culture. More developed countries are able to provide a higher level of health care for their residents, which leads to higher life expectancy, including high rates of child survival. Universal education (education for everyone) promotes better health and provides more employment options for men and women,

leading to greater prosperity. In the least developed countries, traditional roles for men and women often lead to fewer girls completing school, leaving them with fewer options as adults. This promotes a cycle of younger marriage, more children and lower income for families.

As a result, most of world population growth today is occurring in the least developed countries, where family size is largest. **Demographers** (people who study populations) currently expect world population to continue to grow through this century, reaching over 11 billion by 2100. In making population projections, demographers consider likely **fertility** trends (number of children born per woman), health trends, wars and the distribution of resources we need to survive, like food and water. They also look at national policies that could affect these trends, like the promotion of universal education and more economic opportunities for all.

Glossary

birth rates: the yearly number of births per 1,000 people.

death rates: the yearly number of deaths per 1,000 people.

demographer: someone who studies the characteristics of human populations.

exponential growth: a growth pattern which numbers double (multiplied by 2).

fertility: producing offspring.

finite: having limits.

Industrial Revolution: a period in history (mid 1700s through late 1800s) when there was a surge of new advances in science and technology.

industrialized: describes a country or region with built-up industries and a more modern infrastructure.

least developed countries: the poorest countries (about 48 according to the United Nations in 2016) with low incomes and poor indicators of human development (health, education, etc.)

less developed countries: poorer countries that do not produce as many goods and services as more developed countries.

life expectancy: the average number of years someone is expected to live based on current health trends.

migration: the movement of people from one geographic region to another.

more developed countries: countries with greater overall wealth. These countries tend to be more industrialized, bringing in money from producing more goods and services.

population: the number of people in a country or region.

rate of population growth: the percentage by which a population size changes each year.

sanitation: the prevention of disease and promotion of good hygiene by maintaining clean conditions and safe drinking water.