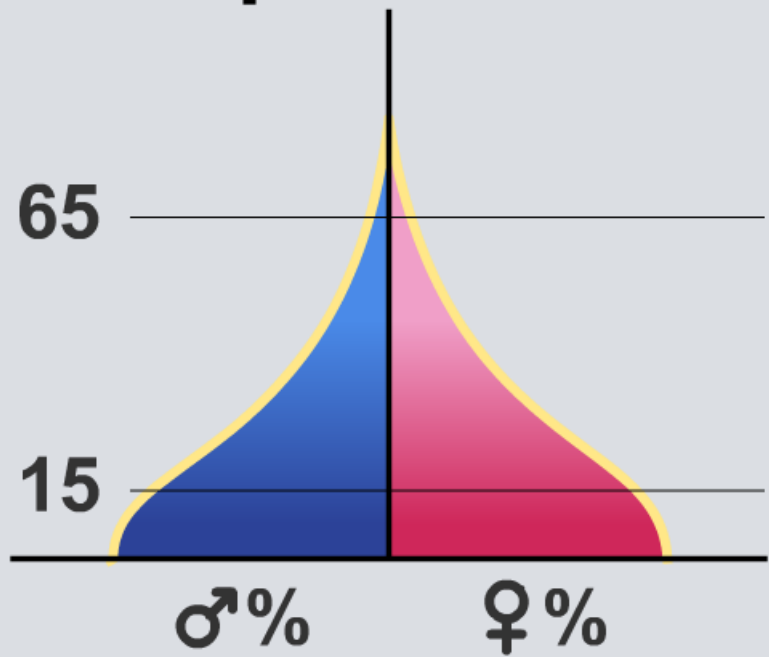


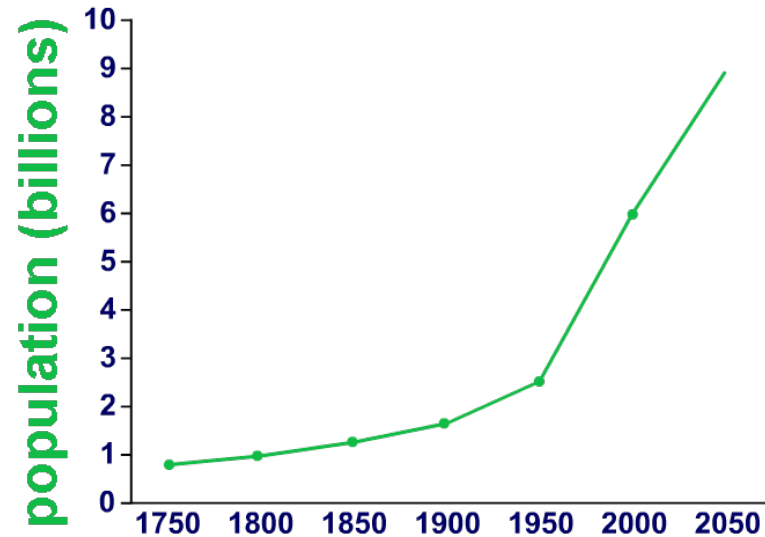
Human Populations



The human population

There are currently more than 6 billion people on Earth.

The human population has grown exponentially since the Industrial Revolution, when new technology increased the carrying capacity of the Earth.

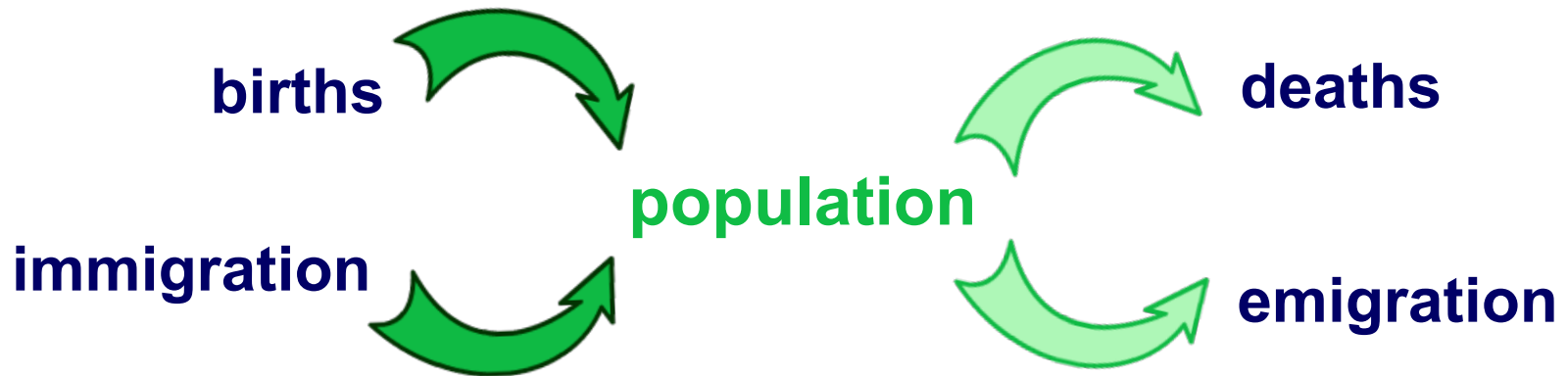


The population growth rate can be calculated by subtracting death rate from birth rate, or using the following equation:

$$\text{population growth rate} = \frac{\text{population at end of period} - \text{population at start of period}}{\text{population at start of period}} \times 100$$

Demography is the study of the size and structure of populations, including a population's age and sex distribution.

Demographic rates, such as population growth rate, birth rate and death rate can be used to describe how a population, or a subset of a population, changes over time.



A population's demographic rates are determined by the environmental conditions. Human populations are greatly affected by their level of economic development.



Demographic transition model



Population pyramids



Survival curves and life expectancy

Survival curves measure the life spans of a sample of 10,000 individuals. At each age the number of survivors per 10,000 is plotted.

In general, more developed countries tend to have higher survival rates. This causes their curves to sit further to the right.

Survival curves can also be used to determine average life expectancy. This is the age at which 50% of the sample population is still alive.

