

Germination in plants

[Sociology](#), [Population](#)



1. 1a. Geographic range, population density and distribution, growth rate, and age structure. 1b. Gray squirrels have a very geographic range. 2a. Births, deaths, immigration, and emigration. 2b. The dandelion population will probably grow. Eventually, dandelions might take over the lawn. 3a. A population grows exponentially when it has all of the resources it needs and disease and predation do not occur. 3b. Exponential growth shows a "J shaped" curve because with each generation, the number of organisms producing offspring increases, resulting in a rapid increase in population size. 4a. A logistic growth curve has an S-shape. 4b. When a population's growth slows following a period of exponential growth and then stops at or near the carrying capacity. 4c. Climate changes in the environment, maybe from global warming, might cause the carrying capacity of a population to change.

1a. A limiting factor is a factor that controls the growth of a population. 1b. Limiting factors that affect population growth are food, predators, disease, room, accidents, and natural disasters. 2a. Three density-independent limiting factors are competition, predation, and disease. 2b. Competition among members of the same species, living in the same area, would increase as population increases. 3a. Density-independent factors are environmental factors affecting a population regardless of size. 3b. Natural disasters, hurricanes, and floods are density-independent factors. 1a. For tens of thousands of years, the human population grew very slowly. Then, about 500 years ago, the population started to grow exponentially and increased dramatically. The growth rate slowed in the second half of the twentieth century; the population is still growing, but at a slower rate. 1b. Harsh living conditions resulted in high death rates that occurred through

most of human history. Rapid population growth occurred when advances, such as improved nutrition, healthcare, and sanitation, decreases the death rate. 2a. Different countries have different birthrates, death rates and age structures. 2b. The demographic transition occurs in three stages. Stage 1: A country has a high birthrate and a high death rate. Stage 2: The death rate drops, but the birthrate remains high. Stage 3: The birthrate drops to meet the death rate. The population growth of a country slows after it has completed the demographic transition. 2c. Yes, because they help predict future population growth, to predict how the worlds' human population will grow.