

World Population Video Companion Text

Description

World Population is a six minute film illustrating human population growth over the last two thousand years. It starts in 1 C.E., when the world population was approximately 170 million, and goes on to depict its expansion to the current level of over seven billion. The video ends in the year 2050, with a projected population of over 9 billion.

You will see a map of the world covered by yellow dots. Each dot represents a million people. The numbers you will see at the bottom of the screen show the year. Icons in the lower right-hand corner provide historic reference points.

Narration

- 1 C.E.:** The world population in 1 C.E. is about 170 million. Agriculture has advanced to the point where farmed land is producing 50 times more food than unfarmed land. As a result, large permanent settlements are developing in places where the climate is good and land is fertile, often along river banks and near deltas. These early settlements of people were much smaller and spread out than present day cities.
- Han Dynasty:** Located in China, the Han Dynasty is one of the two major world civilizations at the beginning of the first millennium. An imperial census in China counted approximately 60 million people.
- Roman Empire:** At this time the Romans control a highly developed empire. At one point Rome has an estimated one million residents, but by 476 the Roman empire begins to decline. At this time global population reaches an estimated 190 million people worldwide.
- Golden Age of India:** Under the Gupta Dynasty (320-335 C.E.), India takes a prominent role in world culture, science and the arts that lasts well into the 5th century. Population starts its upward surge in Asia.
- Mayan Empire:** Around 550 C.E., the Mayan Empire is flourishing in Central America. Chichen Itza becomes the Empire's epicenter and the most famous city on Mexico's Yucatan Peninsula.
- Spread of Islam:** A new religion, Islam, develops in the Middle East in the 7th century. Religious fervor and increased trade contribute to Islamic expansion throughout parts of Europe and Asia.
- Viking Conquest:** Both the Vikings and the Anasazi cliff-dwellers in the Southwestern region of the Americas reach their cultural peak now. The dots in Central and South America represent the Toltecs, Mayans, the Moche civilization of Peru, and the Amazonian cultures of Brazil.
- Trans-Saharan Trade:** People begin crossing the Sahara Desert thanks to the availability of the camel. Trade between east and west Africa opens up with routes allowing for the transport of goods, mainly gold. Towns begin to spring up along the route near sources of water.
- Crusades:** Wars between Moslem and Christian armies in southeast Europe and the Middle East go on for 200 years. By 1100 world population reaches 320 million.
- Mongol Invasions:** First war, then disease, cuts China's population in half, as indicated by the disappearance of dots.

Black Death:	The Bubonic Plague travels from Asia, through the Middle East, and finally arrives in Europe. It spreads most quickly in Europe because of high population density and crowding, two conditions under which contagion is most dangerous. In a period of five years, one-fifth of the world's population, 75 million people, are lost to the disease. This is the only point during the animation where population growth is negative – it drops by 10 million between 1300 and 1400, from 360 to 350 million. But as you can see, the dots disappear and reappear almost immediately. It took only 20 years to return to pre-plague population levels.	
Incan and Aztec Empires:	The Incan and Aztec Empires are among the most flourishing cultures of the 15 th century. The Aztecs build their capital city at Tenochtitlan in modern-day Mexico. The Incan Empire extends from Ecuador to central Chile, with its capital based in Cuzco in modern-day Peru. Both cultures are decimated by disease brought over during the Columbian exchange in the 15 th and 16 th centuries.	
European Exploration and Conquest:	Curiosity and a revival of population and economic activity spur European Exploration during this time. In the New World, Hernando Cortes sails from Hispaniola to Mexico, crushing the Aztec Empire in his wake. The great boat migration to the New World begins soon after Christopher Columbus stumbles upon North America. The New World potato dramatically expands European food production and, as a result, its population.	
Atlantic Slave Trade:	Cash crop demands (such as sugar and tobacco) in Europe and the Americas lead to the spread of coercive labor systems and fuel the Transatlantic Slave Trade. African men make up the majority of enslaved persons sent to the Americas. The slave trade has a significant demographic impact on the sex-ratio and population growth rate of west and central Africa.	
Colonial America:	In the Americas, Old World diseases cause widespread death amongst native residents, delaying population expansion until the 18 th century.	
Industrial Revolution:	The 18 th and 19 th centuries bring advances in food production, water supply, sanitation, transportation, and disease control. These advances enable people to live longer, and population, as a result, reaches 1 billion in 1804.	
Modern Medicine:	Advances in medicine such as the identification of malaria and a new understanding of how diseases spread lead to their control.	
1927:	2 billion.	Icons representing the World Wars, the Green Revolution, and the Information Age appear quickly during this segment.
1960:	3 billion.	
1974:	4 billion.	
1987:	5 billion.	
1999:	6 billion.	
2011:	7 billion.	
2023:	8 billion.	
2037:	9 billion.	
2050:	You may want to pause the video at this point, with population over 9.5 billion and only 30 years from now. The largely unpopulated areas show environments that can't support a large human population, like the deserts of Africa and Australia, or the fragile tundra of Canada.	

This is a useful interdisciplinary instrument: science teachers can use it to illustrate the effects of advances in technologies like medicine and agriculture; social studies teachers can stop it at any point in history to discuss trade patterns, famines, wars and other population-shaping forces of a given period; and math teachers can use it to illustrate exponential growth and geometric progression.