**PANDEMICS**

In December 2019 the world was hit with a new virus. It was called COVID-19 and spread like wildfire across the globe affecting every continent and every country. It started with one person, but within three months, the virus had infected millions and thousands died. So, what is a virus, and what is a pandemic?

Viruses are microscopic particles. They cannot thrive outside a host body. Viruses lie around our environment, waiting for a host cell to come along. They can enter through the eyes, nose, mouth or breaks in skin. Once inside, they infect a cell and release genetic instructions. The virus uses the host cell enzymes to reproduce more virus particles before it starts attacking the body.

Firstly, it causes the temperature of the body to rise. The immune system then kicks in and attempts to attack the virus. Sometimes viruses can live in a person’s body for a long time before it starts to attack.

A virus can spread through mosquitos, fleas, rats, the air, saliva, sweat or a sneeze. It can sit on a surface waiting for the next host to come by and collect the virus via their hands, a strain of hair, or an object that ends up on a baby’s mouth. The common cold is a virus. Examples of deadly viruses are Ebola, AIDS, the Hong Kong flu, and swine flu.

A pandemic is a global outbreak of a disease. A pandemic usually starts as an epidemic first. An epidemic occurs when a disease rapidly spreads across a region. Pandemics have occurred throughout history, and of course the most recent is COVID-19. The first known pandemic (it was a small world back then) was in North-East China in 3000 B.C. It was called Hamin Manga. It ravaged the region and wiped out entire villages.

Most virus pandemics have been caused by an influenza (flu) virus. Flu viruses can change from season to season. Although scientists and doctors are good at predicting how a virus will occasionally change, a new one will pop up that does not behave as predicted. The deadliest pandemic in history was the Spanish Flu of 1918. Although it did not start in Spain, it was first recorded in Spain. Of course, the Spanish people believed it began in France and called it the French flu. An estimated 50 million people died from the Spanish flu in Europe.

Score: 68.93 Level 2

435 words

Modified from www.livescience.com and [www.science.howstuffworks.com](http://www.science.howstuffworks.com)

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| FOCUS WORDS | |
| virus | deadliest |
| continent | microscopic |
| pandemic | particles |
| epidemic | environment |
| ravaged | genetic |
| influenza | enzymes |
| predicting | temperature |
| immune | mosquitos |
| saliva | sneeze |
| Ebola | swine |

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| PANDEMIC - WORD MEANINGS | |
| virus | A microorganism that invades living cells and uses their chemical machinery to keep itself alive and to replicate itself. |
| continent | enormous land mass |
| pandemic | a disease that spread across the world |
| epidemic | a disease that spreads across a region |
| ravaged | a severe force that destroys extensive areas |
| influenza | highly contagious viral infection of the respiratory system |
| predicting | thinking that something may happen |
| immune | resistant to a particular infection |
| saliva | moisture in the mouth |
| Ebola | highly infectious disease that causes fever and internal bleeding |
| deadliest | causing death |
| microscopic | extremely small |
| particles | a minute portion of matter |
| environment | geographical area |
| genetic | Relating to genes and hereditary |
| enzymes | a chemical substance that is found in living creatures which produces change |
| temperature | a degree of heat |
| mosquitoes | insect |
| sneeze | An involuntary expulsion of air from the nose and mouth due to irritation |
| swine | pig |