



COVID-19

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The world shut down while COVID-19 spread rapidly throughout human populations in many countries during 2020. A tiny virus caused havoc with lives and caused many deaths...

In early 2020 a mystery illness was making many people very ill in China and causing people to die. Doctors realised quite early on that this flu-like illness was actually a respiratory disease. The virus caused breathing problems and it was very similar to other viruses which had emerged a few years before called SARS and MERS.

Fortunately, these viruses had not spread rapidly from human to human around the world. This time it was different, the new virus was spreading quite easily from person to person. It was not long before people outside China were developing the same symptoms.



The symptoms

The main symptoms caused by the mystery virus were initially identified to be:

- High temperature (fever)
- Cough

There were other symptoms which people reported less frequently...

The mystery illness was identified as being caused by a coronavirus and the disease was named COVID-19. In March 2020, the World Health Organisation (WHO) declared a pandemic and they urged governments around the world to find the balance between protecting the health of their populations, minimising disruption and respecting human rights.

The early days...

The mystery illness was first identified in Wuhan, China at the end of 2019 as a viral pneumonia. Only a matter of weeks later the Chinese authorities determined that the outbreak had been caused by a new coronavirus. The same type of virus which causes the common cold, but this one was now killing people.

Scientists in China quickly established the genetic sequences from the virus and made them publicly available. Now scientists from around the world could study the code and use it to start developing treatments and vaccines if they were needed.

In January 2020, there was little evidence of human-to-human transmission of the virus. People around the world just presumed that it would be a disease which just affected people in China and thought there was little to worry about.

How does the virus spread?

Different viruses spread in different ways. Although it was not very clear at first, scientists now know that the majority of Covid infections happen indoors. The virus can spread by droplets from an infected person, landing on other people or landing on nearby objects which other people then touch. Virus particles can be passed through the air from an infected person and breathed in by another person.

The virus spreads

The coronavirus was able to spread beyond China to other countries. Within weeks there were cases detected in South Korea, Italy, Iran and other countries. Clusters of cases began to appear on cruise ships and it was obvious the virus was passing quite easily from person to person. Although there were travel restrictions on people from infected areas, the virus was able to spread unnoticed.

Lockdown

As the virus spread from country to country case numbers started to rise rapidly. As case numbers started to double within a matter of days, many people became very ill from the virus and needed hospital treatment. If the number of infections had been allowed to rise very rapidly, hospitals would not have been able to cope. The only way to stop the virus spreading was to bring in a lockdown and tell most people to stay at home. Schools had to close, workers had to work from home and people who could no longer do their job were supported by the government by paying their wages.



In some countries lockdown meant that people could not leave their house. Other countries had a more relaxed lockdown where people could still exercise, such as going for walks to get out of the house.

Even with multiple lockdowns over the course of a year, there were over 3 million people that lost their lives due to COVID-19. It will probably take a long time for scientists to truly understand how many people have been affected by the pandemic. Other people may have died because they could not receive the same level of hospital treatment which they would have received. Some people may have suffered from severe mental illness caused by restrictions to their lives.

Vaccines

The 3 main vaccines approved for use in the U.K. against COVID-19, included:

- Pfizer/BioNTech
- Oxford/AstraZeneca
- Moderna



Worksheet

- 1) Use the map to label Wuhan, China where the mystery respiratory illness was first identified at the end of 2019.
- 2) Find out more about SARS and MERS.
 - a) What does each of these names stand for?
 - b) When and where did these diseases first originate?
 - c) What caused the disease?
- 3) Research how different countries responded to the pandemic. You could compare countries such as: U.K., U.S.A., Germany, South Korea, Taiwan etc.
- 4) Produce a poster informing people what they can do to reduce the risk of becoming infected by a virus.

Curriculum links

KS2

Working scientifically: reporting and presenting findings from enquiries.

Identifying scientific evidence that has been used to support or refute ideas or arguments.

KS3

Health.

Working scientifically: interpret observations and data, including identifying patterns and using observations, measurements and data to draw conclusions.

Working scientifically: ask questions and develop a line of enquiry based on observations of the real world, alongside prior knowledge and experience.



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