Our immune system protects us from illness. Most viruses are not harmful but some are contagious and can make us unwell.

When we are young our immune system is only just starting to get good at spotting intruders. If our white blood cells are unable to destroy an intruder fast enough, we can quickly become unwell and need help. A vaccine contains a safe form of the virus to encourage our body to make antibodies. Once exposed to the virus from the vaccine our immune system remembers. This means our body is ready to recognise the virus and destroy it before it can make us unwell. This means you will have immunity to this virus.

**What is mumps?**
This illness is caused by a virus that can be caught from other people through touch or the air. Mumps is associated with headaches, joint pains, and swelling of the face and glands in the neck. In some rare cases it can develop into meningitis, or lead to deafness or inflammation of the testes, and in some cases infertility. With viruses, antibiotics will not work, so the only way we can protect ourselves and others is through a vaccine. Where most people are vaccinated within a community, protection for everyone – including those who cannot be vaccinated – is high. This is called ‘herd immunity’. Where fewer people have been vaccinated, the whole community becomes vulnerable to developing the disease and passing it on to others. This can be especially dangerous for the very young, old or those with weak immune systems.

Take a look at the drawing to see the surprising beauty of mumps. They are quite variable in size and like many viruses are so small they can only be seen using an electron microscope – but even then, are not clearly seen. Viruses have an outside called a capsid to attach and enter cells with genetic material to direct the cell to make more viruses. The line is a scale and represents 100 nanometres (ten thousandths of a millimetre). About 500 mumps viruses would fit across the width of a human hair.