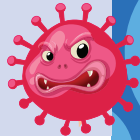


Build a Virus

Do you know what a virus is?

Viruses are tiny but powerful. If you catch a viral infection, it can make you feel really unwell. Viruses are smaller than most cells, including human cells and bacteria. Learn about viruses by building your own virus in this fun activity!

Recommended age for activity: 7 years and up



You will need:

- ☞ Shredded paper
- ☞ Coloured matchsticks
- ☞ Plasticine in various colours
- ☞ Pipe cleaners cut up into small lengths

Instructions:

1. Choose a virus you wish to make or create your own design. There are some examples of viruses on the next page you can choose from.
2. Take some shredded paper to represent the **RNA** or **DNA** in a virus.
3. Take a bit of plasticine, flatten this out and place the shredded paper (genetic material) on the centre of the plasticine. Roll the plasticine into a ball to represent the tough outer coat or **capsid**.
4. Choose from matchsticks, pipe cleaners or other materials to represent the **glycoprotein spikes** on the capsid, which is used by the virus to grip onto cells.

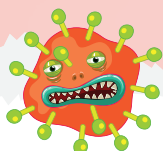
Happy Holidays!

Turn your virus into a tree ornament by placing it inside a fillable clear plastic bauble. Tie a ribbon at the top and hang your virus on your Christmas tree!



What do Telethon Kids researchers do?

- Conduct research into viruses that cause diseases in children
- Want to understand how viruses get inside our cells and make us sick
- Look to find the best ways to treat and cure children with diseases caused by viruses
- Investigate viruses at all scales, from their genes and proteins to the way they spread within a population



Here are some examples of viruses you may choose to create:

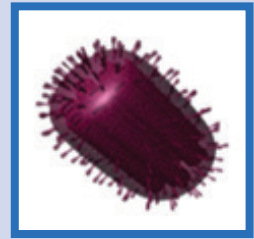


Influenza virus:

causes flu and swine flu

Symptoms: body aches, sore throat and joints, coughing and sneezing, feeling hot then cold, headache, tiredness, blocked or runny nose, nausea and vomiting

A flu vaccine helps to protect people from this virus. If you do catch the flu, you can help to stop it spreading by washing your hands and using a tissue when you cough and sneeze.

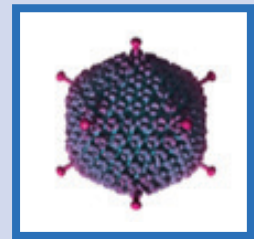


Adenovirus:

causes colds

Symptoms: runny nose – green snot and coughing

There is no vaccine for the common cold – to stop catching or spreading this virus, wash your hands and do not let anyone sneeze or cough on you! Tell them to use a tissue.



Norovirus:

causes an upset tummy

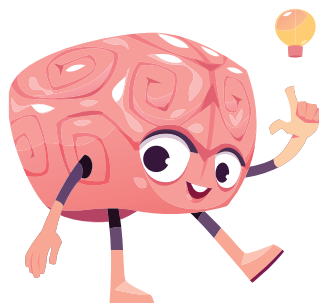
Symptoms: diarrhoea and vomiting

Norovirus spreads quickly especially where there are lots of people close together in schools, hospitals or on boats. People who have caught norovirus should not prepare food for others until they are better.



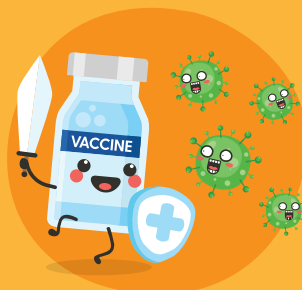
Design your own virus!

Viruses constantly change and adapt to try to escape our immune systems. You may wish to design your own brand-new virus! What will your virus look like? How many protein spikes will it have?



FUN
FACT

Researchers have developed vaccines to help protect us from many common viruses. Your body also has its own immune system and this helps to fight infection by viruses too.



Good hygiene and vaccinations are the best way to prevent people from getting sick by a virus.