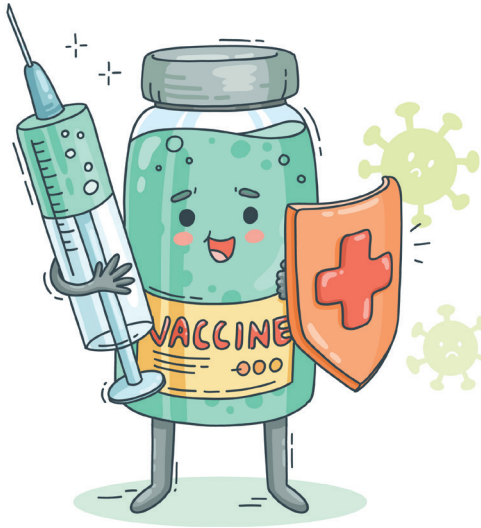


Vaccine Memory Game



A **pathogen** is another word for a germ that can cause disease and make you sick. For every new pathogen your body meets, the immune system needs to produce a specific **antibody** to match the pathogen in order to kill it. Think of it like a lock and key. Antibodies have very specific binding sites that only bind with certain **antigens** that are found on the surface of the pathogen. This helps them ignore the good cells and only attack the bad ones that make us sick.

Vaccines work by introducing a killed, modified or part of the pathogen into our bodies, which doesn't make us as sick as catching the disease itself. However, the immune system doesn't know this and builds up defences and antibodies against the disease. Vaccines enable us to gain a **memory** of the antibody needed to kill a particular pathogen. When the real disease tries to attack, our body is ready and can quickly neutralise the antigens.

You're going to play the role of a vaccine in this card-matching game.

Preparation:

Prepare the game by printing and cutting out the matching 'antibody' and 'pathogen' shapes on the following pages. You may wish to laminate the cards or glue them onto scrap cardboard for durability.

How to play:

The aim is to match the pairs as quickly as you can. Shuffle the cards and lay them face down in front of you. Turn the cards over two at a time. With every matching pair, keep them face up in the same position in front of you. If you get an incorrect pair, turn them back over.

As the game progresses, you will find that you can match the antibody and pathogen pairs faster. This is just like how your immune system works – it learns which antibody is needed to be produced for each germ and becomes more efficient the second time the body is exposed to the pathogen.

Once you have found all the matching pairs, turn the pairs back over keeping them in the same position and repeat the game. See how you can match the pairs even faster this time around? This is just like how vaccines work in your body!



Pathogens



HIV



Polio



Measles



Influenza



E.coli



S. aureus

Pathogens



Streptococcus



Ebola



HPV



Smallpox

Pathogens



Malaria



C. tetani



TB

Antibodies



Antibodies



Antibodies

