

Microbe Magic Experiments

<http://microbemagic.ucc.ie>

Explore your body – Make a Braille message!

What you will need:

A friend

A piece of thick cardboard about the size of a small notepad or your copybook (If you cannot get thick cardboard, just fold up a large piece and tape it in place).

Sewing pins (*ask an adult to help with sewing pins*)

Pencil

Blindfold

What to do:

- Without showing your friend, write a short message on the cardboard (remember to make the letters a little bigger than normal and to write clearly!).
- *Ask an adult* to help you to push the pins into the cardboard where you have drawn the letters. Make sure the sharp ends of the pins are not sticking out anywhere!
- Blindfold your friend and ask them to try to figure out the message you have written.
- Try out different methods of deciphering the message – is it easier to tell what the message is if your friend just touches the message or if they run their fingers over the message. Do you need lots of pins or just a few to tell what the letter is? Are smaller or larger letters easier to identify? Are some fingers more sensitive than others and can they decipher the message more easily....?

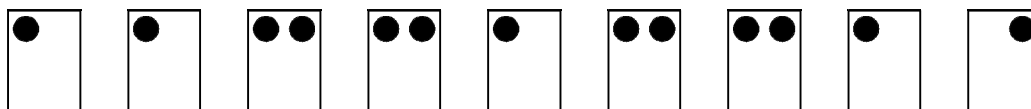
What's happening?

The Braille alphabet is used by blind people to read. The letters of the Braille alphabet don't look like the letters on this page – they are represented by a series of raised dots (see below) that are read by running the fingers over them. There are 6 dots in total which can be combined in 63 different ways to give the letters of the alphabet, numbers, punctuation and more. In addition, there are specialist alphabets for scientists, musicians and other specialist groups!

A secret code?

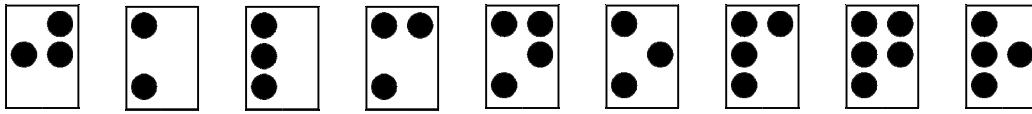
The Braille alphabet is outlined below. You can create secret codes that only you and your friends can read! Why not try creating a message with this alphabet and asking a friend if they can figure it out (remember to give them a copy of the alphabet so they can crack the code!). You can use pins in cardboard or simply draw the Braille alphabet letters and numbers onto a page.

Braille alphabet - Letters

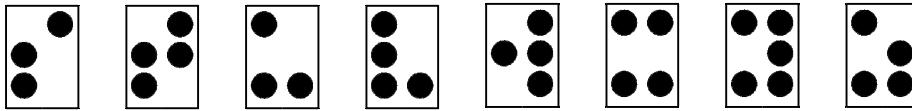




a b c d e f g h i

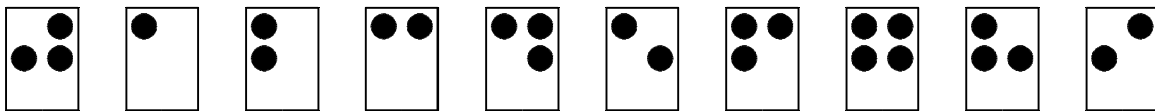


j k l m n o p q r



s t u v w x y z

Braille alphabet - Numbers



0 1 2 3 4 5 6 7 8 9