Learning by Braille

TECHNOLOGY Braille is a technological system that gives people who are blind or partially sighted a means of communicating and accessing written information.
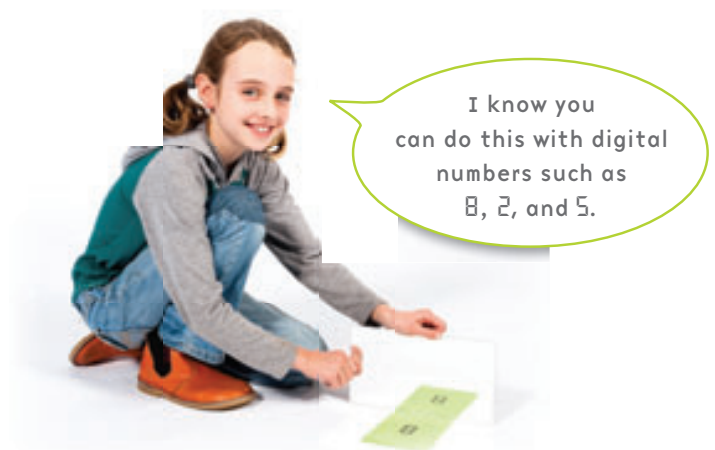
Activity One

Braille is a type of print that uses raised dots for letters and numbers. It is read by touch, not by sight. The Braille alphabet was invented in 1824 by Louis Braille, a blind Frenchman. Braille symbols are formed by using different combinations of up to 6 dots. A "Braille cell" has 3 rows and 2 columns.

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
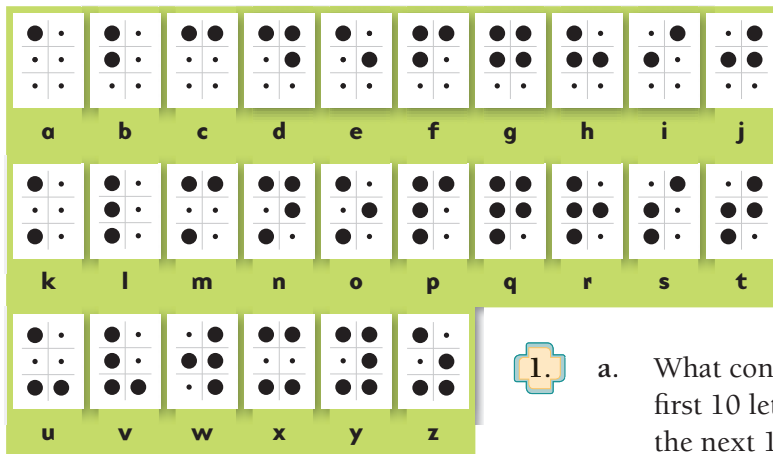
Louis Braille

1. a. What connection can you see between the first 10 letters in the Braille alphabet and the next 10 letters?
   b. One of the letters in the third row of the Braille alphabet was not in the French alphabet when Louis Braille was alive. Which letter is it? How can you tell?

2. a. Use the Braille alphabet sheet to find letters that are examples of reflection.
   b. Find Braille letters that would be the same letter if you turned the page upside down.

> I know you can do this with digital numbers such as 8, 2, and 5.

Activity Two

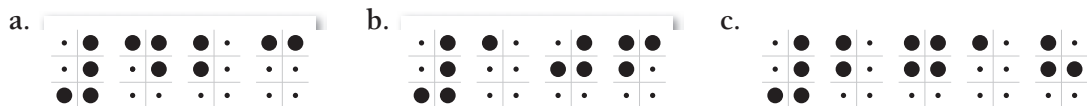**1.** For mathematics, New Zealand uses the Unified English Braille Code. For the digits 0–9, it uses the first 10 letters of the alphabet with ⠼ in front of any number formed from these digits.

Number follows ...
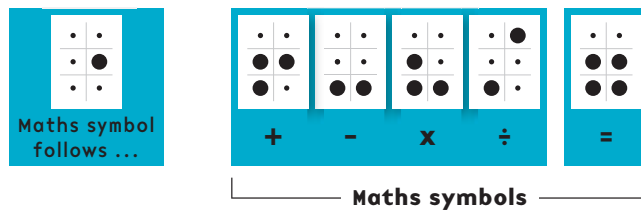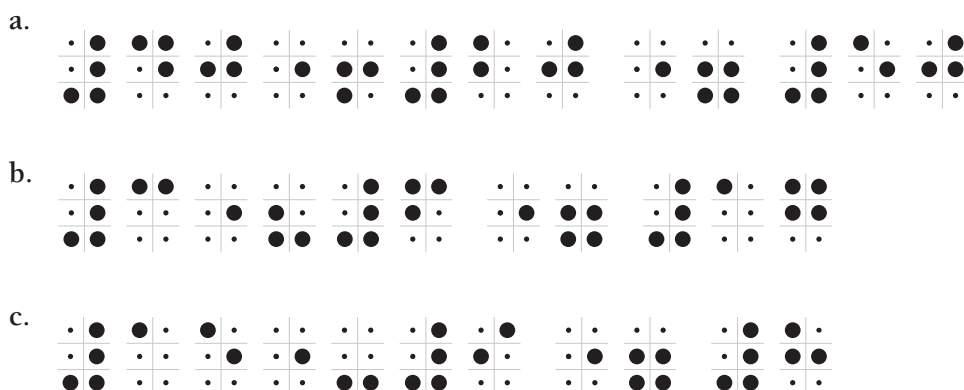
0	1	2	3	4	5	6	7	8	9

— Digits —

For example:

5   15
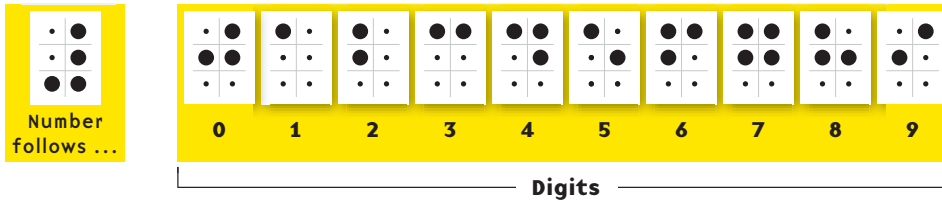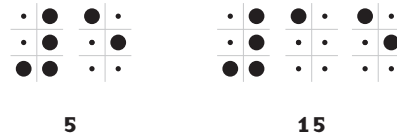
Work out what these numbers are:

a.

b.

c.

2. Braille also has symbols for +, −, x, ÷, and =. ⠰ goes in front of each maths symbol. Note that there is always a blank space on either side of the equals sign.

Maths symbol follows ...

+	−	x	÷	=

— Maths symbols —

Check these equations and correct the answer if necessary.

a.

b.

c.

3. Use Braille digits and symbols to write 3 equations on your copy of the Braille grid and give them to a classmate to check. Don't forget to use the number or symbol indicators where they are needed.

Focus   Exploring code, combinations, and transformations