

## Braille

Braille is a reading and writing system for blind and vision impaired people. It is made up of raised dots that can be 'read' by touch. The basic component is a rectangular 'cell' of six dots, arranged in two vertical columns of three dots.

Each dot arrangement represents a different letter or number. For example, the letter 'A' is a single dot (the first dot in the top left column). 'B' is two vertically aligned dots (first and second dots in the left column), while 'C' is two horizontally aligned dots (top dot in both columns).

In this way, braille offers 63 different dot combinations to form the alphabet, numbers, punctuation marks and abbreviations. Braille is used around the world in many languages. Just about any written information can be presented in braille including books, music, mathematics and knitting patterns.

### Braille grades

The two grades of braille are:

- **Grade 1** – the braille alphabet, numbers and punctuation. This is equivalent to the print alphabet. People learning braille usually start with Grade 1. However, this form takes up a lot of space, which makes Grade 1 braille books much bulkier than print books.
- **Grade 2** – braille that, in addition to the alphabet, uses abbreviations and contractions (similar to that of shorthand). Grade 2 braille is used for more complicated texts, such as novels and large documents, because it takes up less space. For example, the word 'braille' is written as 'brl'. The shorter words mean less finger travel across a line and a faster reading speed. Grade 2 is the most popular form of braille.

### History of braille

The inventor of braille was Louis Braille, born in 1809 in France. At the age of three, he accidentally pierced one of his eyes with a tool from his father's workshop. Complications including infection meant that he was blind in both eyes by five years of age. He attended the School for the Blind in Paris, but the cumbersome raised tactile print letters used for reading and the fact that there was no way of writing for blind people was a constant source of frustration.

Inspired by a tactile system of 'night writing' consisting of dot patterns, Louis Braille finally hit upon the six dot combination of tactile print after years of experimentation. His braille writing system was not widely accepted by the authorities until after his death.

At first, braille was written by hand, using a stylus to punch the dots into the paper. Since the dots were pushed into the back of the paper, writing had to be done backwards, or from right to left.

### Modern braille technology

The Perkins Brailler is a kind of typewriter that is commonly used throughout the world to write braille. It has six keys representing each one of the six braille dots. To write a letter, the correct combination of keys has to be pressed simultaneously. The dots are punched into the paper from underneath, which means that braille can be written as it is read, from left to right.

Computer technology has revolutionised the use of braille. For example:

- **A braille display (also known as a screen reader)** – this is a piece of equipment connected to the computer that reads screen text and presents it to the user via one line of refreshable braille.
- **A braille embosser** – this is a type of printer that prints text in braille dots. It relies on a braille translator to translate text.
- **A braille keyboard** – this is a keyboard consisting of six keys for producing braille dots, a space bar, carriage return and backspace key. It allows the user to type in braille.

- **Scanners** – text can be converted into braille using a scanner and a computerised braille translation program.
- **Telebraille III** – this device attaches to a telephone typewriter (TTY). The TTY is a small screen and typewriter that is used in place of the telephone handset, so that the conversation is typed rather than spoken. The Telebraille III transcribes the written text and displays it in braille.

### Using braille around the home

Braille isn't limited to reading materials – it can be used with just the same versatility as the written word for sighted people. The basic tool is the braille labelling gun, which stamps braille onto adhesive-backed vinyl tape. Contact your vision impaired association for more information.

The possibilities are limitless, but handy labelling suggestions include:

- All of the cards in your wallet, including credit and ATM cards (keep in mind that some ATM machines may not accept cards with extra labels stuck on them)
- The cans, packets and containers in your kitchen pantry
- CDs, DVDs, computer disks and videotapes
- Cleaning products
- Personal hygiene products such as shampoo and conditioner
- Plastic ziplock bags, in which you may like to keep different colours of socks, pantyhose, wool, cotton and so on
- The various buttons on appliances such as the microwave, washing machine, video recorder and oven.

### Professional braille services

Many associations for blind and vision impaired people offer a range of braille services including:

- Braille libraries
- Mail order libraries of braille books
- Instruction in braille, for both sighted and blind or vision impaired people
- Transcription of any written material into braille.

### Where to get help

- Your doctor
- Vision Australia, Vision Information Line Tel. 1300 84 74 66 – for help to maintain your independence
- Blind Citizens Australia Tel. 1800 033 660
- Guide Dogs Victoria Tel. (03) 9854 4444

### Things to remember

- Braille is a reading and writing system for blind and vision impaired people, made up of raised dots that can be 'read' by touch.
- The most popular form of braille is Grade 2, which uses the alphabet as well as abbreviations and contractions.
- Many associations for blind and vision impaired people offer a range of braille services including instruction classes and libraries.

**This page has been produced in consultation with, and approved by:**

Vision Australia

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