

BRAILLE

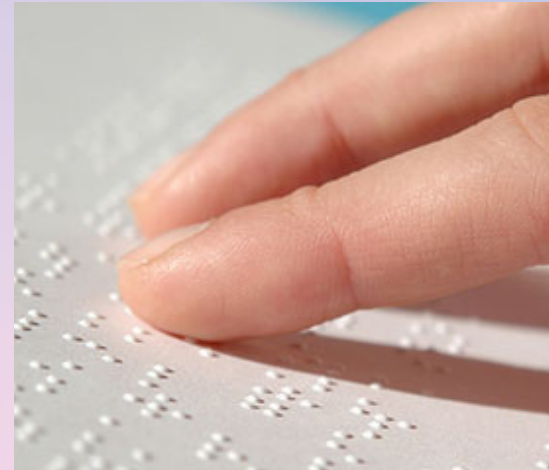
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HISTORY

Braille was invented by Louis Braille, who was blinded at age 3, in 1824 when he was just 15 years old. It is based on a French military code called 'Ecriture Nocturne' (night writing) that contained 12 raised dots. The military system was used for sending messages that could be read without light, but they could not be felt with one touch. Louis Braille used this system to invent the Braille we know today which is felt with one touch and consists of a 6-dot pattern.

WHAT IS BRAILLE

Braille is system of raised dots that is read by touch, a tactile script. Blind people read Braille with the index fingers on both hands. It is read from left to right and the script is used for 133 languages. Some of these languages include English, Arabic, Spanish, Turkish, and Mandarin.



The Braille Cell

1 ● ● 4
2 ● ● 5
3 ● ● 6

BRAILLE CELLS

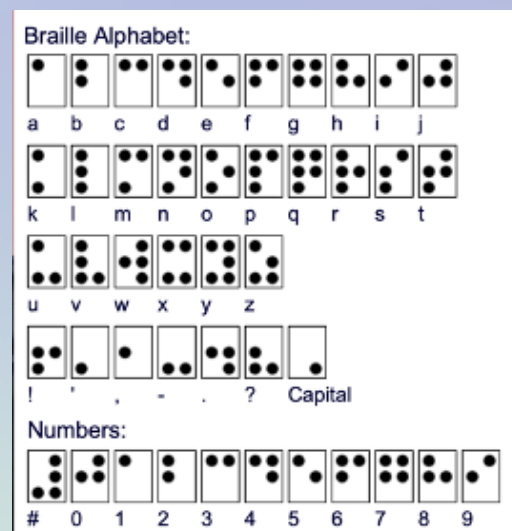
Braille is formed in 'Braille cells.' Each Braille cells uses a 6-dot pattern of two parallel rows each with three dots. Each dot position is number 1-6. This allows for 64 possible combinations. Each cell can represent an alphabetic letter, number, punctuation mark, part of a word, or a whole word.

ACCESSIBILITY

Almost 90% of blind children in the US are illiterate because they are not being taught Braille or are not given access to it.* There are many reasons for this, but one reason is there is a shortage of Braille teachers. This can be tied to ASL classes at Iowa. The ASL classes are very popular but are very coveted because of few teachers and funding. Additionally, the University of Iowa does not offer any classes in Braille writing. .

UNCONTRACTED

In Uncontracted (grade one) Braille, every letter of every word is expressed. This is an alphabetic writing system. It is mainly used for children's books or for newly blinded adults (in the US). Latin America and Eurasia primarily use uncontracted Braille as the main form of Braille.



In Uncontracted Braille, "you like him" requires 12 cells.

you like him

TECHNOLOGY

Many different technologies using Braille have been invented.

The Slate and Stylus is used for making Braille cell patterns on paper, like a pen and paper.



Braille writers are used like a typewriter. They type/imprint Braille cell patterns on paper.

Braille embossers print a document using Braille from a computer.



Electronic Braille notetaking devices use computer programs that convert the Braille patterns typed into a specific language on a computer.

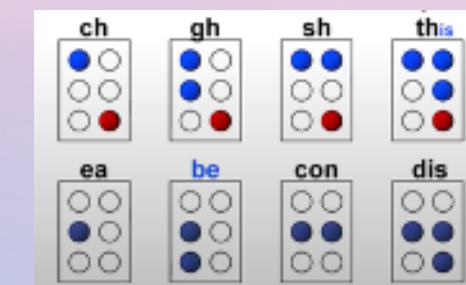
Refreshable Braille displays allow the Blind person to read what is on the computer screen in Braille on the device.



Refreshable Braille e-books are like Kindles, but use raised Braille dots the refresh with each page.

CONTRACTED

In Contracted (grade two) Braille, cells are used in combination with others to form a variety of contractions or whole words. This is a mix of a Logographic and an Alphabetic writing system. It is more commonly used in the US; standard for most signs and reading material. Contracted Braille can make 180 different letter contractions (including 75 short form words).



you like him

In Contracted Braille, "you like him" requires 6 cells. The letters y and I are also used for whole words 'you' and 'like'. The word 'him' is formed by combining the letters h and m.