



My Box Of STEAM

Science HOW WE SEE

LET'S TRY TO WRITE IN BRAILLE!

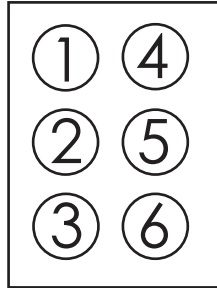


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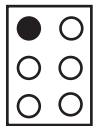
THE BRAILLE CELL

The braille cell is comprised of six dots. Each dot has a number 1-6.

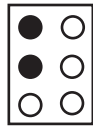
Beginning in the top left corner of the cell is dot 1.



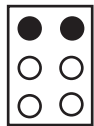
BRAILLE LETTERS



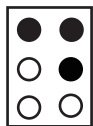
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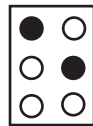
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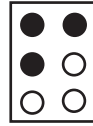
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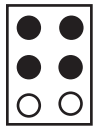
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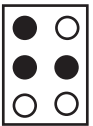
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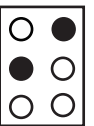
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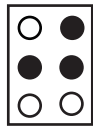
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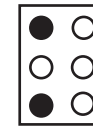
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I



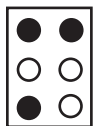
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K



L



M



N



O



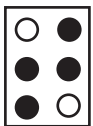
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R



T



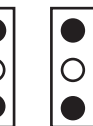
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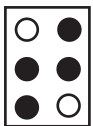
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X

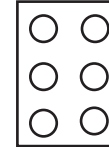
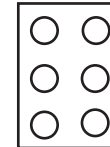
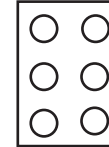
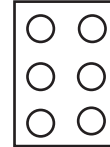
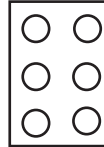


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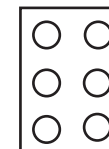
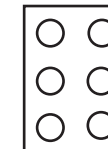
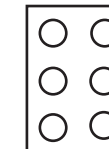
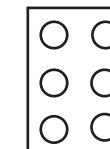
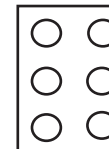
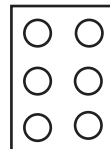
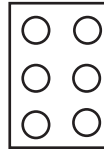


Z

L O U I S



B R A I L L E

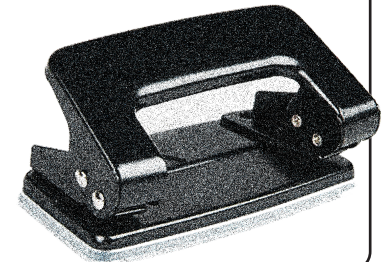


1. With a pen

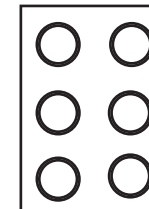
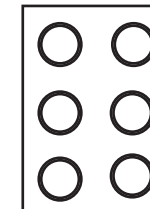
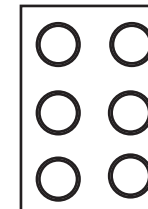
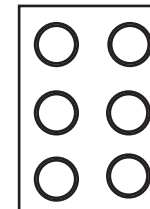
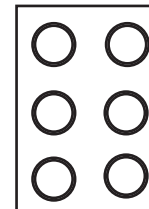
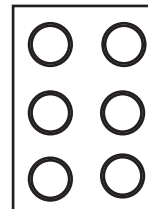
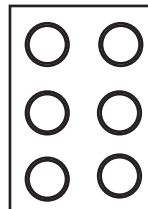
Looking at the table fill in the empty circles to write "LOUIS BRAILLE" a pen.

2. With relief

- 1) Create paper circles with paper punch, using thick paper(200gr).
- 2) Glue them onto the empty circles to write "BRAILLE".
- 3) Closing your eyes, try to touch where you glued the paper circles.



B R A I L L E





THE WORDS IN THE DARK

Mr. Braille was a saddle maker for the farmers of Coupvray, a small village not too far from Paris. The tools he used to create saddles for donkeys and horses were really beautiful. Three-year-old Louis watched as his father cut, sewed, and created with expert gestures. Little Braille could not resist the temptation to imitate him; he climbed onto the stool and picked up a sharp awl that was perhaps too big for his child's hands. In an instant, however, the tool seemed to come to life, shelling and moving so fast that Louis could not hold it ... suddenly he felt a great, sharp pain in his eye! Louis began screaming desperately, seeking comfort in the arms of his father, who frightened took him to the hospital. Unfortunately, the wound was deep and the child lost his sight, the infection involved both eyes, and at age five little Louis Braille found himself in the dark. Gone were the hills, the trees and houses, the animals and the faces of everyone he knew. Gone were the sun, the moon, the stars and the hours of the day...only darkness remained.

Louis, however, was lively, intelligent, curious full of talent that could not go to waste. Louis had developed a prodigious memory; everything that was read to him, he learned by heart. He was so small that the memory of the things he had seen seemed to be lost in the darkness of his eyes. One day, however, the church priest Abbot Paully, who was very fond of Louis, discovered that there was a school in Paris where people who had lost their sight were taught a trade but also how to read. Louis got a scholarship and, at the age of ten, left for Paris and the Institute for the blind founded by Valentin Haüy. His parents held him tightly hugging him. However, they did not feel worried, perhaps a little sad about the separation, but they knew they could count on the strength and ability of their son who, although small had repeatedly shown great ability.



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Louis Braille
(1809 -1852)

He was a French educator who developed a writing system for the blind, named after him, braille.

Mr. Haüy, welcomed Louis. For more than twenty-five years he had created a method for teaching blind children and young people to read, yet he had not imagined that this child, the son of a saddler, would represent a real revolution for him and his institute. Louis learned not only to read words but also music, becoming a talented pianist and cellist. He was so good that as soon as he became an adult he was asked to stay on to teach others what he had learned. Haüy's method, however, had one major flaw, it did not allow people to learn how to write...and for Louis and others who were deprived of sight, it was really very sad and disheartening. A few years passed, and one day in 1821, a day that seemed like any other, artillery captain Charles Barbier de La Serre arrived at the institute. During the long years of war, the captain had invented writing to be done in the dark so that his soldiers could exchange messages in the trenches without being detected by the opposing army. Soldiers could write and decipher the messages without seeing them, which is why he had called it "night writing." The captain had thought that this invention of his might also prove useful for those like the boys at the institute who lived in the dark all the time. So that day he had come to town precisely with the intention of experimenting with theirs, his invention: a script made of twelve raised dots divided into two columns, combining them to produce the various sounds of the language.

This writing made of dots used not the sense of sight, but the sense of touch. The fingertips were used to follow the dots, and through them, words, sentences and whole speeches were constructed... and the dots themselves could be used to write. However, it was complex and many children and young people got lost. Louis who was accustomed to never giving up set out to study trying to perfect the new method, made several attempts (1829) until finally many years later in 1837 he managed to find the right solution: from twelve became only six raised dots were enclosed within a square. Using two sheets of metal or perforated wood as a template, he inserted a sheet of paper in the middle and then with a stylus, a kind of awl, marked the raised dots, thus writing sentences that people could read by running their fingers over them.

The instrument that had made him blind now allowed him to write.

As is often the case with great inventions, not everyone was ready for it. In secret, blind students used it to study, but many more years passed before it was recognised and introduced at the institute to which he had devoted his entire life. Only two years after Louis' death in 1856 was the method accredited but, since then, it has spread all over the world, helping all those people who, like Louis, could not see, lighting for them a real light in the darkness of their existence.



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