##  braillebug.org

When you first look at something written in braille, all you see (or feel) is a jumble of dots! However, like any other code, braille is based on a logical system. Once you understand it, you'll be able to read and write braille easily. That's because braille is not a language, it's just another way to read and write English (or any other language, such as Japanese).

Every character in the braille code is based on an arrangement of one to six raised dots. Each dot has a numbered position in the braille cell. These characters make up the letters of the alphabet, punctuation marks, numbers, and everything else you can do in print.

## The Braille Cell

- The letter " $a$ " is written with only dot 1.
- The letter " $d$ " has dots 1, 4, and 5.
- The letter " $y$ " has dots 1, 3, 4, 5, and 6.
- A period is written with dots 2,5 , and 6. (Do you see how it is the same shape as the letter "d," only lower
 down in the cell?)
- When all six dots are used, the character is called a "full cell."

| $\bigcirc$ | :\% | $\because$ | $\begin{aligned} & \because \circ \\ & \because 0 \\ & \because 0 \end{aligned}$ |
| :---: | :---: | :---: | :---: |
| a | d | y | (period) |

The next page shows you how the dots are arranged in the braille cell for each letter of the alphabet. See if you can find the letters in your name and tell the dot numbers for each one.
raised dots and no blank dots.

(1)
$\sigma_{0}^{\circ} 000$
$\boldsymbol{\sim}$
$3 \bullet 0 \bullet$
$\mathbf{Z}$
0
0
0
0

| $\omega N \rightarrow$ | Q $0^{\circ} 0^{\circ}$ | (0) $0_{0} 0$ |
| :---: | :---: | :---: |
|  | $\bullet \bullet \bullet$ |  |
|  | $\bigcirc \bigcirc$ | $\bigcirc$ |
| $\underset{\substack{\stackrel{D}{\bar{D}} \\ 0}}{\substack{0}}$ | $\boldsymbol{\omega}$ | $\begin{array}{lll} \circ & \circ & \circ \\ -0 & \circ \end{array}$ |
| O) OA |  | . 0 |


| $\boldsymbol{0} 000$ |
| :---: |
| 2 $0^{\circ}$ |

2 $0_{0}^{\circ}$




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Braille does not have a separate alphabet of capital letters as there is in print. Capital letters are indicated by placing a dot 6 in front of the letter to be capitalized. Two capital signs mean the whole word is capitalized.


Braille numbers are made using the first ten letters of the alphabet, "a" through "j," and a special number sign, dots $3,4,5$, and 6.


Larger numbers only need one number sign. The comma in braille is dot 2.

$$
\begin{aligned}
& 346=.:^{\bullet: ~: ~}: \\
& 1,428,300=.:^{\cdot} \cdot::: \text {. •• .: : }
\end{aligned}
$$

The Braille Alphabet card shows the capital sign, numbers, comma, and more punctuation symbols with raised dots.

## Write Your Name in Braille

Write the letters of your name on the lines. Then fill in the dots for your name in braille. The capital sign has already been done for you.


Show the braille dots for another word. How many letters do you know from memory?


## Braille Riddles

1. What bow can never be tied?

2. How can you make seven even?

3. What do you get if you cross an insect with a rabbit?


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Follow the Braille Trail!
Follow the trails and read the braille to find the mesages. Each sentence begins with a capital letter.



Message 2: $\qquad$
Message 3: $\qquad$
3.5 $\qquad$

Make compound words by matching the word on the right with one on the left.

$$
\begin{aligned}
& \text { skate } \\
& :^{\bullet} \text { • : •• } \\
& \text { ••: : : :- } \\
& : \because \because: \\
& \text { : ••: : : :- } \\
& \begin{array}{lll}
b 0 a r r d \\
: \because a & \therefore
\end{array}
\end{aligned}
$$

## Braille

- Louis Braille was only 15 years old when he invented the braille code.
- The simple six-dot cell created by Louis Braille is used all over the world by people who read many different languages.
- Braille textbooks are provided free to students who need them. Students can purchase books in braille to read for pleasure from special companies or borrow them by mail from the Library of Congress. Books for younger children sometimes have both the print and braille text on each page so their teachers or parents can follow along and help.
- Braille takes up more space than print. A regular sixth-grade math book is 11 volumes in braille!
- Braille maps, rulers, graph paper, protractors, calendars, and many other learning tools are available through the American Printing House for the Blind (shop.aph.org).
- People who reade braille can send and receive braille materials, books, and equipment free of charge through the U.S. Postal Service.
- A braille watch is read by touch, but it doesn't have braille numbers; there's not enough room! Instead there may be a group of 3 dots for a short raised line at the 12, two dots at the 3,6 , and 9 , and a single dot to mark the other numbers.
- Some of your favorite games are available in braille thorugh companies that specialize in products for people with disabilities. These include Monopoly, Scrabble, Uno, Bingo, and playing cards.
- More braille is being used in the community, thanks to the Americans with Disabilities Act (ADA) that was passed in 1990. You might see braille numbers in elevators, and braille menus in some restaurants. Where else have you seen braille recently?
- An asteroid was named in honor of Louis Braille.


# Braille Worksheet Answers 

Riddles (page 4)

1. a rainbow
2. take off the $s$
3. Bugs Bunny

Follow the Braille Trails (page 5)
Path 1: Braille is fun.
Path 2: I love to read.
Path 3: Read with me.
Match It! (page 6)
skateboard
watermelon
earthquake
rattlesnake
football
birthday touchdown

