

CREATE YOUR OWN CODE

Objective: Students will create and use a specialized code. Students will learn and use Braille.

***Vocabulary:** ALPHABET
BRAILLE
ENCODE
SUBSTITUTION
SYMBOLS

Materials: Access to LEGO® materials, Braille alphabet handouts.

Preparation: Posters and hand outs of the Braille alphabet should be available.

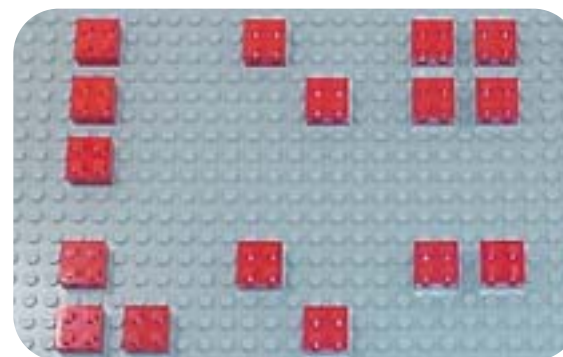
Discussion: The instructor will lead a general group discussion on the use of written language. A written language is a series of **symbols** representing sounds of the spoken language. These symbols can be changed for a variety of reasons: to **encode** a secret message for private communications or a series of dots for the sight impaired. The instructor will demonstrate the **alphabet** in **Braille** and discuss the concept of **substituting** raised dots for letters. Braille uses 26 letters, the same as our written alphabet does, but it uses more symbols to represent different usages of letters.

Activity 1: Students will be assigned a letter in the alphabet to build in order to create a class abecedary. The instructor will encourage the class to be creative in developing letters. Should time permit, students can build the name of the school.

Activity 2: Students will be challenged to create a sentence in Braille using bricks and building bricks.

Activity 3: Students will be challenged to develop their own secret code using bricks. Students will be required to work in pairs and will record their code with paper and pencil. After a substitution code is agreed upon, one partner will send a sentence to the other for decoding.

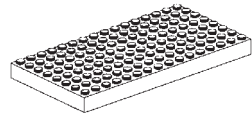
Activity 4: Students will write a short essay describing the importance of written language.



*Use the PCS Adventures™ Term Browser, <http://www.edventures.com>, or a dictionary to find vocabulary definitions.

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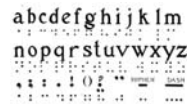
Required Materials:



1 - 8x16 brick



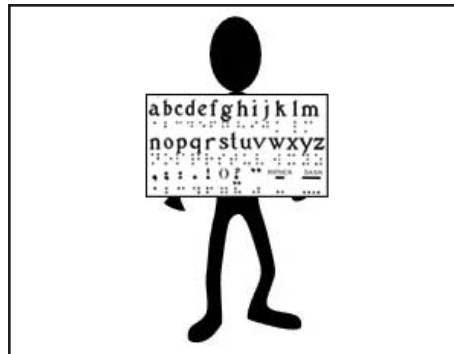
2x2 bricks



braille sheet

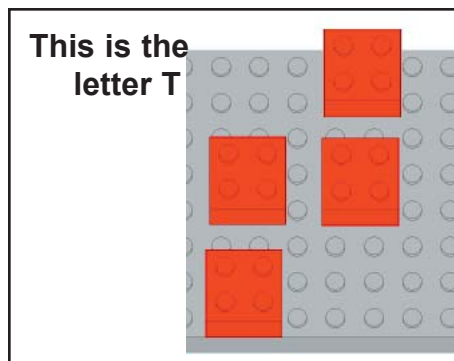
1. Braille is a language used by blind people. Review the sheet of braille your instructor has provided for you.

Check off when complete



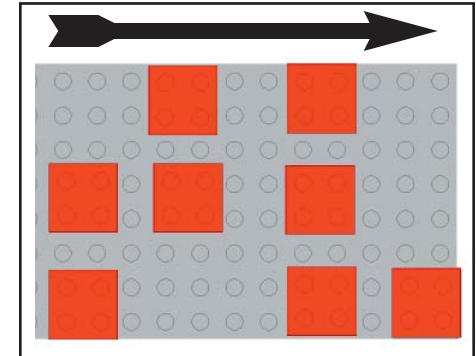
2. By using 2x2 bricks, an 8x16 building brick, and your braille sheet, create the letter P on your building brick. Close your eyes and run your hand over the bumps.

Check off when complete



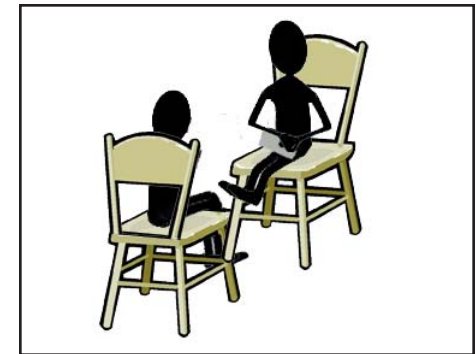
3. Braille is read from left to right, the same way that words are read in English.

Check off when complete



4. Make a braille letter on your building brick. Find a partner and sit across from each other.

Check off when complete



5. Test each other on different letters. Try first with your eyes open, and then for a real challenge, close your eyes!

Check off when complete

