

VISUAL VERSION

Articulatory Phonetics: Tactile Alphabet

LEVEL 1: Single-Syllable Words

A pronunciation guide and simplified phonetic system designed
to support blind and low-vision learners in special education

Cheri Montgomery

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PREFACE

Articulatory Phonetics: Tactile Alphabet is the braille version of a university level phonetics program. It features a simplified phonetic system designed for diverse learners and provides instruction in the formation and articulation of each sound. Following is the preface to the pre-college version.

Today's middle and high school teachers serve students with diverse abilities and language backgrounds. How can one curriculum address such a wide range of learning needs? This series enables every learner to participate in the same lesson.

Individual learning needs are supported through four parallel workbooks created for students, parents, and teachers who are new to:

- braille
- manual signing and lipreading
- English language learning
- articulatory phonetics

Each workbook contains the same carefully ordered selection of words, phrases, and sentences. All exercises include only the sounds and spellings previously introduced. Sentences are deliberately constructed to avoid predictability and prevent guesswork. The intentional design supports early literacy development and proper pronunciation, while the separate formats enhance accessibility for students with distinct learning needs.

The parallel books provide unique instructions for:

- tactile training in braille with audio examples for those learning through touch and hearing
- manual-visual learning through signing and lipreading for those who rely on visual communication
- visual articulatory study using front and midsagittal views of the vocal tract with audio examples for those developing clarity of speech
- visual definition of vocabulary through carefully selected images with audio examples for those acquiring English in the multilingual classroom environment

Articulatory Phonetics: Tactile Alphabet, Level 1 focuses on braille reading. The visual version gives sighted parents and teachers the ability to learn Grade 1 braille alongside the student. Teacher's notes and audio are included. A hard copy tactile version is available on the student order page at www.teamphonetics.com. The tactile version is published in two parts: textbook and workbook. The textbook contains spelling rules, phonetics, and reading assignments. The workbook contains phrases, sentences, and a short story.

- *Reading, Phonics, and Braille*, tactile textbook, comb binding, ISBN 979-8-9878102-1-7
- *Reading, Phonics, and Braille*, tactile workbook, comb binding, ISBN 979-8-9878102-2-4

Because the linguistic core is identical, all student groups can participate in the same lesson while engaging through the pathway best suited to their learning needs. Audio recordings of each sound, as pronounced in multiple languages, further strengthen comparison and deepen phonetic awareness. Additional sensory associations, including scent, touch, taste, and sound, provide alternate avenues for learning when visual or auditory cues are limited.

Level 1 covers the spellings and phonetic transcriptions of single-syllable words. Level 2 expands the vocabulary of single-syllable words, includes words with diphthongs, and provides additional opportunities for phonetic transcription. Level 3 extends the instruction to include words with multiple syllables.

Students are encouraged to sing their words as a way of developing clarity of speech. Singing slows the articulatory process, allowing vowels to be sustained and consonants to be articulated with energy and clarity.

The decision to offer this approach originates from more than two decades of experience teaching lyric diction at the Blair School of Music at Vanderbilt University. The concepts have been refined and shared through presentations for the National Opera

Association, the National Association of Teachers of Singing, and the International Congress of Voice Teachers. From this research emerged a phonetic system first developed for braille readers, now integrated throughout the series. Each workbook offers a simplified and accessible approach to the International Phonetic Alphabet (IPA). Uppercase and lowercase letters are used to represent the sounds of the English language. They are placed between forward slashes to distinguish phonetic content from conventional spelling. A conversion chart listing the standard IPA symbols with the simplified version is provided below.

The resources needed to create the exercises in this series originated from research developed for the *Lyric Diction Workbook Series* and the *IPA Scramble* game app by Montgomery. Computer-based search tools and a database of more than 87,000 English words with phonetic symbols were used to organize

a graded approach to learning English spellings and phonetics.

This workbook follows the Moore teaching model, an interactive approach to instruction developed by mathematician Robert Lee Moore and first implemented at the University of Pennsylvania in 1911. His methodology engages students in the learning process by giving each class member the opportunity to present individually assigned work.

Each class meeting follows a consistent routine. Students begin by presenting a written transcription assignment from one of twelve phrases provided in each unit. The teacher introduces new material in a brief lecture, followed by a guided phonetic reading activity. Finally, each student receives a unique phonetic assignment to prepare and present in the next class meeting. The twelve exercises in each unit are also suitable for independent study.

Phonetic Conversion Chart								
IPA	Simplified	Example	IPA	Simplified	Example	IPA	Simplified	Example
/æ/	/a/	h <u>a</u> t	/k ^h /	/k/	c <u>a</u> ke	/θ/	/th/	th <u>i</u> ng
/ɑ/	/A/	f <u>a</u> ther	/l/	/l/	l <u>i</u> ttle	/ð/	/Th/	th <u>i</u> s
/b ^h /	/b/	b <u>a</u> by	/m/	/m/	m <u>e</u> me	/u/	/u/	m <u>o</u> on
/tʃ/	/tS/	ch <u>a</u> ir	/n/	/n/	n <u>o</u> te	/ʊ/	/U/	b <u>o</u> ok
/d ^h /	/d/	d <u>a</u> nce	/ŋ/	/N/	s <u>i</u> ng	/ʌ/	/x/	u <u>p</u>
/ɛ/	/E/	b <u>e</u> d	/ɔ/	/O/	ou <u>g</u> ht	/v/	/v/	v <u>a</u> se
/f/	/f/	f <u>i</u> g	/p ^h /	/p/	p <u>i</u> n	/w/	/w/	w <u>i</u> n
/g ^h /	/g/	g <u>o</u> od	/ɹ/	/r/	r <u>i</u> ng	/j/	/j/	y <u>e</u> s
/h/	/h/	h <u>e</u> art	/ɜ/	/R/	ear <u>th</u>	/z/	/z/	z <u>o</u> o
/i/	/i/	s <u>e</u> at	/s/	/s/	c <u>e</u> ase	/ʒ/	/Z/	be <u>i</u> ge
/ɪ/	/I/	f <u>i</u> t	/ʃ/	/S/	sh <u>i</u> rt	stress: /' /	/' /	be'l <u>i</u> eve
/dʒ/	/dZ/	j <u>u</u> dge	/t ^h /	/t/	t <u>i</u> me	glottal: /ʔ/	/ʔ/	I, ev <u>e</u> r

ACKNOWLEDGMENT

I am grateful for braille instruction from Steve Norman, braille/technology instructor at the Tennessee Rehabilitation Center. He assisted with research that culminated in articles published by the National Association of Teachers of Singing, *Journal of Singing*; *MultiBriefs*; and *Vanderbilt University News*. He was instrumental in testing the Kindle version of three diction workbooks written for singers with blindness. His willingness to share his expertise and extensive experience with the braille system and associated technology is much appreciated.

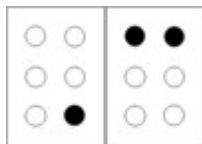
INTRODUCTION TO BRAILLE

Braille is a tactile writing system created in 1824 by Frenchman Louis Braille. Each braille character consists of a cell with raised or lowered dots. Characters are distinguished by the number and arrangement of raised dots within each cell. The six dots are organized in two columns. There are three dots in the left column and three dots in the right column (imagine a 2x3 Lego brick). The dots are numbered counting from top to bottom starting with the left column.

Braille Cell



Each braille cell is assigned a number name according to the dot configuration within the cell. For example, the braille symbol for *c* is named dots 14 (dots 1 and 4 are raised for the braille representation of *c*). Uppercase letters are indicated by placing a braille dots 6 before the letter. The braille representation for uppercase *C* is a dots 6 cell followed by a dots 14 cell.



Braille consumes a lot of space. Certain characters require more than one cell. The 6-dot cell system is used for reading, math, and music. The 8-dot cell system provides an extension. A third row of dots reduces the line by including additional information, like capitalization, beneath the cell (imagine a 2x4 Lego brick).

There are three levels of encoding for English braille. Grade 1 provides a letter-by-letter representation of any given spelling, grade 2 includes abbreviations and contractions, and grade 3 contains various symbols that can be customized to suit the individual needs of the user. This text provides a study of grade 1 braille.

PATTERNS IN BRAILLE

Braille is an intuitive system designed for easy memorization of symbols. Braille letters of the alphabet correspond with numbers: *a* is 1, *b* is 2, *c* is 3, *d* is 4, *e* is 5, *f* is 6, *g* is 7, *h* is 8, *i* is 9, and *j* is 0. A numeric indicator precedes a braille number to distinguish it from a letter of the alphabet. The numeric indicator is a dots 3456 cell.

Numeric
Indicator
#



The braille alphabet follows a pattern. The raised dots for letters *a* through *j* are similar to letters *k* through *t* (an added dots 3 distinguishes *k* through *t*). The raised dots for letters *u*, *v*, *x*, *y*, and *z* are similar to letters *a*, *b*, *c*, *d*, *e* (an added dots 36 distinguishes *u*, *v*, *x*, *y*, and *z*). Notice that the letter *w* was not included. It was omitted by Braille since *w* is not a spelling of the French language. The letter *w* is a dots 2456 cell.

The pedagogical approach of this text is based on a newly created phonetic system that consists of uppercase and lowercase letters. Letters *a*, *i*, *b*, *d*, *g* are introduced first since they produce a sufficient word bank and complimentary phonetic study. The remaining letters are introduced incrementally to align with the accessible phonetic system and the spellings of words.

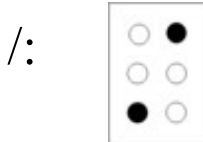
LEARNING TOOLS

Use a 2x3 egg carton and ping pong balls to recreate braille symbols. Lego bricks also provide excellent learning aids. Purchase a 32x16 base plate, 30 2x4 bricks, and 100 1x1 round dots. Recreate the braille cells using the 1x1 bricks for dots and 2x4 bricks for cells (the bottom row should remain blank). Place the cells in alphabetical order on the base plate (a through *j* on row 1, *k* through *t* on row 2,

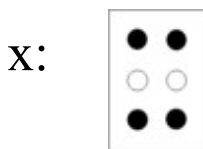
and *u v x y z w* on row 3). After the letters are memorized in alphabetical order, remove the cells from the base plate, place them in a sandwich bag, and select randomly to test your memory.

SPECIAL SYMBOLS

There are three symbols needed to navigate the braille portions of this text: the numeric indicator, the forward slash, and the letter *x*. The numeric indicator helps the reader identify numbers (see examples on the right side of this page). A forward slash is placed on either side of phonetic symbols.

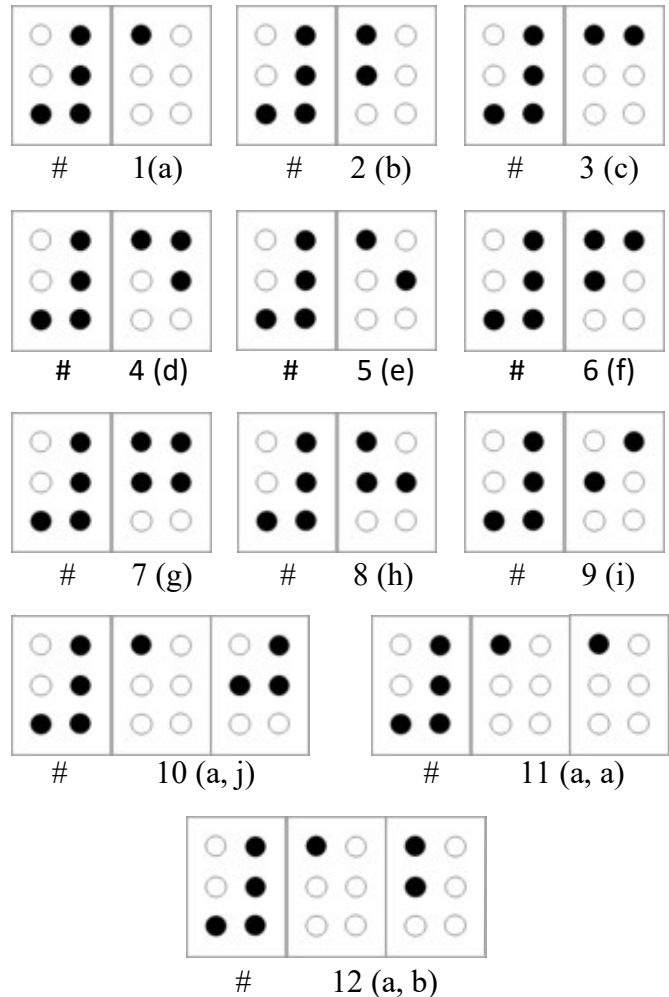


The letter *x* acts as a place marker or tracking line for discovering new braille symbols. The dot configuration of an *x* cell marks the outer boundaries of a cell. Imagine the typed version of an uppercase *X* with dots at the ends of each diagonal line. A braille *x* is dots 1346. This arrangement of dots provides an ideal tactile reference point for other braille symbols.



A line with a group of *x* cells is used to create a tracking line. It indicates the beginning of an exercise. A number between two groups of *x* cells indicates a new line of an exercise.

Students in a group learning environment should memorize the braille number associated with their individually assigned homework. Students may locate their assignment by searching the lines that contain a group of *x* cells (dots 1346) followed by the numeric indicator (dots 3456), the exercise number, then another group of *x* cells. Note the braille symbol for each number: 1 is dots 1, 2 is dots 12, 3 is dots 14, 4 is dots 145, 5 is dots 15, 6 is dots 124, 7 is dots 1245, 8 is dots 125, 9 is dots 24, 10 is dots 1 and dots 245, 11 is dots 1 and dots 1, 12 is dots 1 and dots 12.



CONTENT NOTE

Unique instructional tools are provided on the first page of each unit. Every letter of the braille alphabet has a scented, tactile, taste, and sound association with topics to discuss. QR codes provide audio links to American and British pronunciations of the phonetic symbols.

CM

ABOUT THE AUTHOR

Cheri Montgomery is an author and lecturer on the topics of voice and diction. She teaches articulatory phonetics, voice, English, Italian, German, French, Latin, Spanish, and Russian lyric diction at the Blair School of Music at Vanderbilt University. Her series of workbooks for diverse learners is available at www.teamphonetics.com.

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UNIT 1:

Spellings and phonetic symbols:

a i b d g
 ⠁ ⠇ ⠃ ⠔ ⠒

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Vocabulary for the spelling test following this unit:
www.stmpublishers.com/level1vocab

Note: refer to the textbook (page 1, top left corner) for the tactile braille symbols depicted on this page.

INSTRUCTIONAL TOOLS

The first three units of this text introduce the most frequently occurring vowels with consonant sounds that are classified as stops. A stop is formed by constricting and releasing the air flow within the vocal tract: *b, d, g, p, t, k*. Consonants classified as continuants are introduced in the following units. A continuant is a consonant articulated with a continuous flow of breath.

PHONETIC SYMBOLS

Understanding the correlation between spelling and

pronunciation is vital to literacy. The International Phonetic Alphabet (IPA) provides a standardized phonetic system for all languages. This text uses a simplified phonetic system that is ideal for beginning braille readers. Braille phonetic symbols are placed between forward slashes. A forward slash is a dots 34 cell.

The scent, tactile, taste, and sound examples on the chart below provide alternate associations since visual cues are not possible. Associations are a fun part of the lesson for students of any age.

INSTRUCTIONAL TOOLS					
ALPHABET LETTER	a Dots 1	i Dots 24	b Dots 12	d Dots 145	g Dots 1245
BRILLE PHONETIC SYMBOL	/a/	/I/	/b/	/d/	/g/
SOUND EXAMPLE	bit.ly/3HqoYTZ 	bit.ly/3wL9xkk 	bit.ly/3wNILaY 	bit.ly/3DVi6NF 	bit.ly/3JQ0yGv 
SCENT ASSOCIATION	<u>a</u>pple pie	i<u>n</u>cense	<u>b</u>acon	<u>d</u>ogwood	<u>g</u>arlic
TACTILE ASSOCIATION	<u>s</u>and	i<u>n</u>ch ruler	<u>b</u>ean <u>b</u>ag	<u>d</u>ominoes	<u>g</u>loves
TASTE ASSOCIATION	cr<u>a</u>nberry	mi<u>n</u>t	<u>b</u>utterscotch	<u>d</u>onuts	<u>G</u>raham crackers
SOUND ASSOCIATION	<u>s</u>axophone	cy<u>m</u>bals	<u>b</u>anjo	<u>d</u>oorbell	<u>g</u>lockenspiel
CHARACTER ASSOCIATION	<u>a</u>dventurous	i<u>n</u>q<u>i</u>sitive	<u>b</u>old	<u>d</u>edicated	<u>g</u>rateful

a i b d g

x x #1 x x

x x / x x / x x / x x # x x # x x # x x

x x / x x / x x / x x

x x a x x a x x A x x /a/

x x i x x i x x I x x /I/

x x b x x b x x B x x /b/

x x d x x d x x D x x /d/

x x g x x g x x G x x /g/

x x #1 x x ab x x /ab/

x x #2 x x ad x x /ad/

x x #3 x x dad x x /dad/

x x #4 x x add x x /ad/

TEACHER'S NOTES

Important navigational tools are introduced on the first lines of this page. A capital letter indicator is a dots 6 cell. It precedes a letter to indicate upper-case. A numeric indicator is a dots 3456 cell. It precedes a letter to identify it as a number. For example: #a is 1, #b is 2, #c is 3 and so on to #aj which is 10. A forward slash is a dots 34 cell. It precedes and follows phonetic symbols.

Instruct the student to use the right-hand index and middle fingers to read the braille text. The left-hand fingers may follow to verify the braille. If the student struggles to distinguish differences between the cells, have them lighten their touch. Pressed contact interferes with sensory awareness.

This unit may be divided into multiple lessons to manage the many new symbols. Use the associations chart on the preceding page to create a scent, flavor, and activity of the day. Use a Lego plate with bricks and round studs or an egg carton with ping pong balls to recreate the braille cells and spell words. Scents in the form of candle wax and small tactile objects can be stored in a labeled pill container. A sample is available at: <https://bit.ly/3MayfWw>

SCHEDULE SUGGESTION

Day 1: indicators, forward slash, *a*
 Day 2: *i*
 Day 3: *b*
 Day 4: *d*
 Day 5: *g*, spelling words and phrases

x x #5 x x bad x x /bad/
 ⠠⠠ ⠼⠠⠠ ⠠⠠ ⠠⠠⠠ ⠠⠠ ⠠⠠⠠⠠⠠

x x #6 x x dab x x /dab/
 ⠠⠠ ⠼⠠⠠ ⠠⠠ ⠠⠠⠠ ⠠⠠ ⠠⠠⠠⠠⠠

x x #7 x x bag x x /bag/
 ⠠⠠ ⠼⠠⠠ ⠠⠠ ⠠⠠⠠ ⠠⠠ ⠠⠠⠠⠠⠠

x x #8 x x gag x x /gag/
 ⠠⠠ ⠼⠠⠠ ⠠⠠ ⠠⠠⠠ ⠠⠠ ⠠⠠⠠⠠⠠

x x #9 x x gab x x /gab/
 ⠠⠠ ⠼⠠⠠ ⠠⠠ ⠠⠠⠠ ⠠⠠ ⠠⠠⠠⠠⠠

x x #10 x x bib x x /bIb/
 ⠠⠠ ⠼⠠⠠⠠ ⠠⠠ ⠠⠠⠠ ⠠⠠ ⠠⠠⠠⠠⠠⠠

x x #11 x x did x x /dId/
 ⠠⠠ ⠼⠠⠠⠠ ⠠⠠ ⠠⠠⠠ ⠠⠠ ⠠⠠⠠⠠⠠⠠

x x #12 x x bid x x /bId/
 ⠠⠠ ⠼⠠⠠⠠ ⠠⠠ ⠠⠠⠠ ⠠⠠ ⠠⠠⠠⠠⠠⠠

x x #13 x x gig x x /gIg/
 ⠠⠠ ⠼⠠⠠⠠ ⠠⠠ ⠠⠠⠠ ⠠⠠ ⠠⠠⠠⠠⠠⠠

x x #14 x x big x x /bIg/
 ⠠⠠ ⠼⠠⠠⠠ ⠠⠠ ⠠⠠⠠ ⠠⠠ ⠠⠠⠠⠠⠠⠠

x x #15 x x dig x x /dIg/
 ⠠⠠ ⠼⠠⠠⠠ ⠠⠠ ⠠⠠⠠ ⠠⠠ ⠠⠠⠠⠠⠠⠠

x x #16 x x Gib x x /gIb/
 ⠠⠠ ⠼⠠⠠⠠ ⠠⠠ ⠠⠠⠠⠠ ⠠⠠ ⠠⠠⠠⠠⠠⠠

Presentation exercise: Provide phonetics by filling in the cells or by using an egg carton with ping pong balls.

1. dad	⠠⠠ ⠠⠠ ⠠⠠	4. bag	⠠⠠ ⠠⠠ ⠠⠠	7. dab	⠠⠠ ⠠⠠ ⠠⠠	10. did	⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠
--------	----------	--------	----------	--------	----------	---------	-------------

2. gag	⠠⠠ ⠠⠠ ⠠⠠	5. dig	⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠	8. big	⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠	11. add	⠠⠠ ⠠⠠
--------	----------	--------	-------------	--------	-------------	---------	-------

3. bib	⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠	6. bid	⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠	9. bad	⠠⠠ ⠠⠠ ⠠⠠	12. gab	⠠⠠ ⠠⠠ ⠠⠠
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a i b d g

x x #1 x x

Provide spellings and phonetic symbols for the following phrases:

Group Exercise

the first group of words

x x #1 x x

See note
below

x x #2 x x

x x #3 x x

x x #4 x x

x x #5 x x

x x #6 x x

x x #7 x x

x x #8 x x

x x #9 x x

x x #10 x x

TEACHER'S NOTE

The word *a* is needed for the creation of phrases and sentences. It is a necessary sight word for beginning readers. The phonetic symbol for *a* is /x/ which is a dots 1346 cell. The /x/ is the stall vowel in English. It is the *uh* sound that we make when we do not know what to say. The /x/ sound is also found in unstressed words and syllables. This vowel with its multiple spellings is introduced in unit 23.

x x #11 x x
 ⠠⠠ ⠠⠠⠠⠠ ⠠⠠ ⠠⠠⠠⠠⠠ ⠠⠠⠠⠠ ⠠ ⠠⠠⠠⠠

⠠⠠ ⠠⠠⠠⠠⠠ ⠠ ⠠⠠⠠⠠⠠ ⠠ ⠠⠠⠠⠠⠠⠠⠠

x x #12 x x
 ⠠⠠ ⠠⠠⠠⠠ ⠠⠠ ⠠⠠⠠⠠⠠ ⠠ ⠠⠠⠠⠠ ⠠⠠ ⠠⠠⠠⠠⠠ ⠠ ⠠⠠⠠⠠⠠⠠⠠

SINGLE SPACED LINES

The left-hand index and middle fingers should remain at the left margin. They serve as place holders for single-spaced lines (see phrase #11).

UNIT 2:

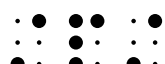
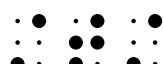
Spellings and phonetic symbols:

p /p/ t /t/ .
 ⠏ ⠏⠏⠏⠏ ⠞ ⠞⠞⠞⠞ ⠚

<u>TOPIC</u>	<u>PAGE</u>
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Vocabulary for the spelling test following this unit:
www.stmpublishers.com/level1vocab

Note: refer to the top of page 2 in the braille textbook for the tactile version of the symbols on this page.

INSTRUCTIONAL TOOLS		
ALPHABET LETTER	p  Dots 1234	t  Dots 2345
BRILLE PHONETIC SYMBOL	/p/ 	/t/ 
SOUND EXAMPLE	bit.ly/3WQ1NIIs 	bit.ly/3WUN8Me 
SCENT ASSOCIATION	peppermint	thyme
TACTILE ASSOCIATION	puzzle piece	tassel
TASTE ASSOCIATION	pop corn	toffee
SOUND ASSOCIATION	piano	tuba
CHARACTER ASSOCIATION	patient	trustworthy

Punctuation: Period

A period is a dots 256 cell: 

Patterns in Braille

The letters *p* and *t* have an added dots three. Observe the patterns in braille below. The letter *w* is not included since it was not a part of the original set of braille symbols.

PATTERNS IN BRAILLE										
FIRST FORM	A	B	C	D	E	F	G	H	I	J
ADDED DOTS 3	K	L	M	N	O	P	Q	R	S	T
ADDED DOTS 36	U	V	X	Y	Z					

p t .
⠏ ⠞ ⠆

x x #2 x x
⠠⠠ ⠼⠼ ⠠⠠

x x p x x p x x P x x /p/
⠠⠠ ⠏ ⠠⠠ ⠏ ⠠⠠ ⠏ ⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠

x x t x x t x x T x x /t/
⠠⠠ ⠞ ⠠⠠ ⠞ ⠠⠠ ⠞ ⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠

x x . x x . x x .
⠠⠠ ⠆ ⠠⠠ ⠆ ⠠⠠ ⠆

x x #1 x x app x x /ap/
⠠⠠ ⠼⠼ ⠠⠠ ⠠⠠⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠

x x #2 x x pad x x /pad/
⠠⠠ ⠼⠼ ⠠⠠ ⠠⠠⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠

x x #3 x x dip x x /dIp/
⠠⠠ ⠼⠼ ⠠⠠ ⠠⠠⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠

x x #4 x x pig x x /pIg/
⠠⠠ ⠼⠼ ⠠⠠ ⠠⠠⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠

x x #5 x x tab x x /tab/
⠠⠠ ⠼⠼ ⠠⠠ ⠠⠠⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠

x x #6 x x bat x x /bat/
⠠⠠ ⠼⠼ ⠠⠠ ⠠⠠⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠

x x #7 x x tad x x /tad/
⠠⠠ ⠼⠼ ⠠⠠ ⠠⠠⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠

x x #8 x x tag x x /tag/
⠠⠠ ⠼⠼ ⠠⠠ ⠠⠠⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠

x x #9 x x pat x x /pat/
 ⠠⠠ ⠼⠠⠠ ⠠⠠ ⠠⠠⠠⠠ ⠠⠠ ⠠⠠⠠⠠⠠⠠

x x #10 x x tap x x /tap/
 ⠠⠠ ⠼⠠⠠⠠ ⠠⠠ ⠠⠠⠠ ⠠⠠ ⠠⠠⠠⠠⠠⠠

x x #11 x x it x x /It/
 ⠠⠠ ⠼⠠⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠⠠⠠⠠⠠

x x #12 x x bit x x /bIt/
 ⠠⠠ ⠼⠠⠠⠠⠠ ⠠⠠ ⠠⠠⠠⠠ ⠠⠠ ⠠⠠⠠⠠⠠⠠⠠

x x #13 x x pit x x /pIt/
 ⠠⠠ ⠼⠠⠠⠠⠠ ⠠⠠ ⠠⠠⠠⠠ ⠠⠠ ⠠⠠⠠⠠⠠⠠⠠

x x #14 x x tip x x /tIp/
 ⠠⠠ ⠼⠠⠠⠠⠠ ⠠⠠ ⠠⠠⠠⠠ ⠠⠠ ⠠⠠⠠⠠⠠⠠⠠

x x #15 x x tidbit x x /tIdbIt/
 ⠠⠠ ⠼⠠⠠⠠⠠ ⠠⠠ ⠠⠠⠠⠠⠠⠠⠠ ⠠⠠ ⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠

x x #16 x x tat x x /tat/
 ⠠⠠ ⠼⠠⠠⠠⠠ ⠠⠠ ⠠⠠⠠⠠ ⠠⠠ ⠠⠠⠠⠠⠠⠠

A few simple multisyllabic words are included to increase the word options.

Presentation exercise: Provide phonetics by filling in the cells or by using an egg carton with ping pong balls.

1. gap ⠠⠠ ⠠⠠ ⠠⠠

7. tip ⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠

2. bit ⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠

8. Pat ⠠⠠ ⠠⠠ ⠠⠠

3. pad ⠠⠠ ⠠⠠ ⠠⠠

9. tag ⠠⠠ ⠠⠠ ⠠⠠

4. tab ⠠⠠ ⠠⠠ ⠠⠠

10. pit ⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠

5. dip ⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠

11. tad ⠠⠠ ⠠⠠ ⠠⠠

6. tap ⠠⠠ ⠠⠠ ⠠⠠

12. bat ⠠⠠ ⠠⠠ ⠠⠠

p t .
 ⠏ ⠞ ⠠

x x #2 x x
 ⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠

Provide spellings and phonetic symbols for the following phrases:

Group Exercise

⠠⠠ ⠠⠠⠠⠠⠠⠠ ⠠ ⠠⠠⠠⠠⠠⠠ ⠠⠠ ⠠⠠⠠⠠⠠⠠ ⠠ ⠠⠠⠠⠠⠠⠠⠠

x x #1 x x
 ⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠⠠⠠⠠⠠ ⠠ ⠠⠠⠠⠠⠠⠠ ⠠⠠ ⠠⠠⠠⠠⠠⠠⠠ ⠠ ⠠⠠⠠⠠⠠⠠⠠

x x #2 x x
 ⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠⠠⠠⠠⠠ ⠠ ⠠⠠⠠⠠⠠⠠ ⠠⠠ ⠠⠠⠠⠠⠠⠠ ⠠ ⠠⠠⠠⠠⠠⠠⠠

x x #3 x x
 ⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠⠠⠠⠠⠠ ⠠ ⠠⠠⠠⠠ ⠠⠠⠠⠠⠠⠠

⠠⠠ ⠠⠠⠠⠠⠠⠠ ⠠ ⠠⠠⠠⠠⠠⠠ ⠠⠠⠠⠠⠠⠠⠠

x x #4 x x
 ⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠⠠⠠⠠⠠ ⠠ ⠠⠠⠠⠠⠠⠠ ⠠⠠ ⠠⠠⠠⠠⠠⠠⠠ ⠠ ⠠⠠⠠⠠⠠⠠⠠

x x #5 x x
 ⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠⠠⠠⠠⠠ ⠠⠠⠠⠠ ⠠⠠ ⠠⠠⠠⠠⠠⠠⠠ ⠠⠠⠠⠠⠠⠠

x x #6 x x
 ⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠⠠⠠⠠⠠ ⠠ ⠠⠠⠠⠠ ⠠⠠⠠⠠⠠⠠

⠠⠠ ⠠⠠⠠⠠⠠⠠ ⠠ ⠠⠠⠠⠠⠠⠠ ⠠⠠⠠⠠⠠⠠

x x #7 x x
 ⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠⠠⠠⠠⠠ ⠠⠠⠠⠠⠠⠠⠠ ⠠⠠ ⠠⠠⠠⠠⠠⠠⠠ ⠠⠠⠠⠠⠠⠠

x x #8 x x
 ⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠⠠⠠⠠⠠ ⠠ ⠠⠠⠠⠠ ⠠⠠⠠⠠⠠⠠

⠠⠠ ⠠⠠⠠⠠⠠⠠ ⠠ ⠠⠠⠠⠠⠠⠠ ⠠⠠⠠⠠⠠⠠

x x #9 x x
 ⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠⠠⠠⠠⠠ ⠠ ⠠⠠⠠⠠⠠⠠ ⠠⠠ ⠠⠠⠠⠠⠠⠠ ⠠ ⠠⠠⠠⠠⠠⠠⠠

x x #10 x x
 ⠠⠠ ⠠⠠⠠⠠ ⠠⠠ ⠠⠠⠠⠠⠠ ⠠⠠ ⠠⠠⠠⠠⠠⠠

⠠⠠ ⠠⠠⠠⠠⠠ ⠠⠠⠠ ⠠⠠⠠⠠⠠⠠

x x #11 x x
 ⠠⠠ ⠠⠠⠠⠠ ⠠⠠ ⠠⠠⠠⠠⠠ ⠠⠠⠠⠠ ⠠⠠ ⠠⠠⠠⠠⠠⠠ ⠠⠠⠠⠠⠠

x x #12 x x
 ⠠⠠ ⠠⠠⠠⠠ ⠠⠠ ⠠⠠⠠⠠⠠ ⠠ ⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠

⠠⠠ ⠠⠠⠠⠠ ⠠ ⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠