

# Sounds to Graphemes Guide

**David Newman**

Speech-Language Pathologist



**A Friendly Reminder**

© David Newmonic Language Resources 2015 - 2018

This program and all its contents are intellectual property.

No part of this publication may be stored in a retrieval system, transmitted or reproduced in any way, including but not limited to digital copying and printing without the prior agreement and written permission of the author.

**However, I do give permission for class teachers or speech-language pathologists to print and copy individual worksheets for student use.**

# Table of Contents

Sounds to Graphemes Guide - Introduction .....	1
Sounds to Grapheme Guide - Meanings.....	2
Pre-Test Assessment.....	6
Reading Miscue Analysis Symbols .....	8
Intervention Ideas .....	10
Reading Intervention Example .....	12
44 Phonemes Charts .....	18
Consonant Sound Charts and Sound Stimulation .....	22
Vowel Sound Charts.....	49
Consonant Sounds to Grapheme Charts .....	55
Vowel Sounds to Grapheme Charts .....	60
Rating Progress.....	65
Rating Progress Form .....	66
References.....	67
Appendix A .....	69
Appendix B .....	72
Words Used in Sounds to Graphemes Program.....	75

# Introduction

# Sounds to Graphemes Guide - Introduction

Phonics based reading programs are evidence based methods of teaching people to read by matching speech sounds with letters or groups of letters known as graphemes. This guide is designed to be used as a visual aid and as a handy and accessible reference to help students match speech sounds with the corresponding graphemes. This skill becomes important when students are confronted with a word that is difficult to sound out or does not follow conventional spelling rules. For instance, the word *tough* contains three phonemes and five letters. If a word such as *tough* was to be spelt conventionally in the absence of grapheme rules it might resemble *tuff*.

The five letters in the word *tough* are represented by three graphemes. The graphemes are *t – ou – gh*. The initial *t* is simple enough for younger readers to recognise. The same is not true of the grapheme *ou* or the final grapheme *gh*. Both graphemes require more in depth knowledge of spelling rules and patterns to understand that *ou* represents the /u/ phoneme and *gh* represents the /f/ phoneme. This guide's primary aim is to assist students to efficiently make an informed '*guesstimate*' as to what a particular troublesome grapheme represents or which grapheme to select when writing a difficult word.

## Structure of the Sounds to Graphemes Guide

- Reference list of terms that range from the meaning of graphemes, vowels and consonants to the respiratory system which generates speech sounds.
- **Pre-test assessment:** Instructions and forms to establish a baseline for intervention.
- **Intervention Ideas:** Explanation of direct instruction and an example of how to use the guide to identify graphemes in a target word.
- 44 consonant and vowel charts.
- Sound stimulation sheets for consonants and sound stimulation techniques.
- Vowel sound reference charts, vowel curve illustration and vowel charts.
- Consonant to grapheme charts 1-4
- Vowel to grapheme charts 1-4

# Sounds to Graphemes Guide - Reference

**Phonemes:** phonemes are the smallest unit of speech sound. Phonemes are *individual* speech sounds. The word *cat* is made up of 3 phonemes - /k/ /æ/ /t/ - whereas a word such as *phone* is made up three phonemes /f/ /əʊ/ /n/. There are **44 phonemes** in the English language; **24** of the phonemes are *consonant* sounds, **20** are *vowel* sounds.

**Consonants:** A consonant is a speech sound that is articulated with complete or partial closure of the vocal tract that modifies the breath stream, using mouth structures such as lips, tongue, teeth and glottis. There are twenty four consonant sounds in English. Many consonant sounds exist as sound partners. For instance, the /s/ phoneme is partnered with the /z/ phoneme. Manner and place of articulation are the same in the /s/ and /z/ sounds but the /s/ is voiceless whereas the /z/ is voiced, which changes the nature of the sound. All vowel sounds are voiced. That is, during the production of vowel sounds the vocal folds in the larynx vibrate. This guide makes the point that to better understand the phoneme/letter link it's important to give thought to how speech sounds are made and how consonants and vowels differ.

To illustrate this point let us reflect on the /s/ phoneme. The /s/ sound is constructed from a *voiceless* thin stream of sound that passes through the mouth and over the tongue. The tongue stays slightly behind the teeth which produces the hissing quality of /s/ as the airstream passes over the tongue and between the slightly opened teeth. The /s/ is represented by the grapheme **s** and is found in words such as **sun**, **seal** and **sat**. Importantly, the /s/ is *also* represented by the graphemes **c** as in **lace**, or **ps** in **psychologist** among others.

**Vowels:** a vowel is a speech sound in spoken language that is pronounced with an open vocal tract. In contrast to consonant sounds, vowels occur without build-up of pressure from the articulators. There are 20 different vowels in English. Every word needs to have at least one vowel sound. There are short vowel sounds such as the ubiquitous **a e i o u** and long vowel sounds such as found in words like **light**, **see** or **hawk**.

**Graphemes:** a grapheme is a written symbol of a phoneme (speech sound). The letters in the English alphabet make up the various graphemes that represent the 44 English phonemes. Graphemes can be a single letter, such as the letter *t* that represents the /t/ phoneme in the word *too*. But the /t/ phoneme can also be represented by two letter graphemes such as *tt* in *pretty* or the three letter graphemes *ght* in *light*. As we can see by this simple example, graphemes can be confusing to young readers due to the sometimes many different graphemes that can be used to represent the *same* phoneme. For instance, the /i/ vowel has multiple graphemes, the words *see*, *teach*, *alley* and *people* all feature the /i/ vowel but have different graphemes (*spellings*) to represent /i/.

**Digraph:** a digraph, as the name implies, is a grapheme that has two letters that represent a single phoneme. For instance, the two letter grapheme *sh* is the symbol for the /ʃ/ phoneme and the *ch* grapheme represents the /tʃ/ phoneme.

**Split Digraph:** the letter *e* at the end of some words works in harmony with a vowel grapheme to make a particular sound. The split digraph also goes by the more familiar term, *the magic e*. For instance, the word *grip* has the /ɪ/ vowel. If we add the 'magic e' to the end of *grip* we form the word *gripe*. The short /ɪ/ vowel has now become the long vowel /aɪ/ which changes the word and the sound of the vowel entirely.

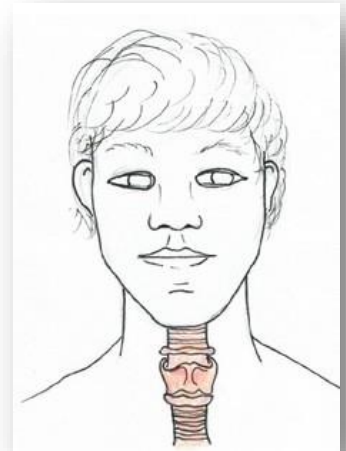
**Blending:** Blending is a phonemic awareness skill that involves combining sounds together to form a word. Blending tasks usually begin with two phoneme words and progress through to four phoneme words. For instance, 'put these sounds to make a word,' two phonemes /k/ - /ey/, three phonemes, /d/ - /o/ - /g/, four phonemes (blend) /d/ - /e/ - /s/ - /k/.

**Segmentation:** Segmentation is a deep level phonemic awareness task that requires a child to identify each sound that makes up a word. As with blending tasks, children should begin with two phoneme words and progress through to segmenting four phoneme words. For instance, 'tell me each sound you hear in *cat*.' The answer is three sounds or three phonemes, /c/ - /a/ - /t/.

**Speech Sound Structures:** Before speech sounds can be converted to graphemes they must first be generated from our respiratory system. When learning about speech sounds it is best to start at the beginning. Speech sounds rely on the respiratory system to provide the energy and power for speech to occur.

**The Respiratory System:** When we talk about the production of speech sounds, it's best to start with the respiratory system. Speech is reliant on the powerful air flow that is supplied via our respiratory system. When we breathe out, the air travels up through the windpipe (*oesophagus*) and out through a structure in our throats called the larynx. The larynx can change the nature of the sounds coming out of our lungs. When we use the larynx, it vibrates. That is, the larynx works to make the air-stream coming out of our lungs from quiet to loud sounds.

**The Larynx (*vocal folds*):** The larynx shapes the *sound* of our voices. The sound, or **phonation**, is produced by a pair of vocal folds that are situated in the larynx. The primary function of the larynx is to protect the trachea from food aspiration. A secondary function of the larynx is to manipulate pitch and volume of speech sounds. The larynx can change the nature of the sounds coming out of our lungs. When we produce voiced phonemes the larynx **vibrates**. That is, the larynx works to make the *quiet* sounds coming out of our lungs into *loud* sounds. The larynx can do this rapidly. **Vocal folds** within the larynx can switch from *quiet* sounds to *loud* sounds and back again. The larynx does this automatically without our awareness.

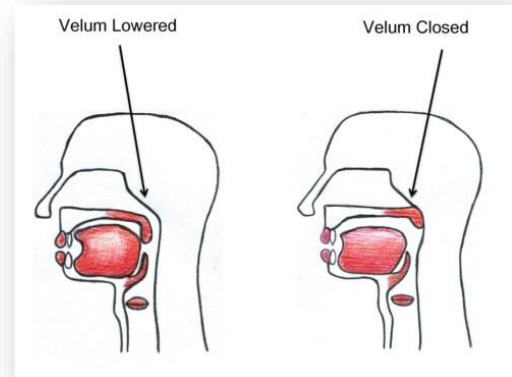


**Articulation:** Articulation is the name given to the precise movements of the tongue, palate, velum and lips to create the vowel and consonant sounds that make up the myriad phonemic elements of language. The amazing thing about articulation is that it must work in harmony with the respiratory and phonatory systems. It does this amazingly well. Once the air from our lungs reaches our mouth (oral cavity) we can then make speech sounds. We make speech sounds by using our **tongue, teeth and lips** to control the air as it passes through the oral cavity. Our lips, tongue and teeth work in harmony to turn the air from



our lungs into speech sounds, and, ultimately, spoken words. Consonants are speech sounds that are created by obstructions of the air flow usually a combination of our tongue, teeth, and lips. In contrast, vowels are generally produced with an open vocal tract, with no obstructions.

**The Velum (soft palate):** The velum, also known as the soft palate, is responsible for closing off the nasal passage during important processes such as swallowing and sneezing. It also performs a vital function during speech in that it closes off the nasal passage for most consonant sounds apart from the nasal consonants /m/, /n/ and /ŋ/. For all other consonant sounds, such as *fricatives* and plosives, the velum is *elevated*, which closes off the airstream to the nasal cavity.



**Lips:** The lips have other important roles other than speech production. Lips control dribbling of saliva, and are important in the act of swallowing and blowing air. During speech, the lips need to spread for some vowels and consonants and seal tight for some plosive sounds.

**Tongue:** The tongue is made up of eight muscles which are either intrinsic or extrinsic. The tongue's primary function is to manipulate food for mastication and for taste. The tongue also plays a vital part in the articulation of speech sounds. The tongue is the most agile group of muscles in the body and can move rapidly back and forward and side to side for speech sound production.

# **Pre-test Assessment**

# Reading Assessment

In this section we assess the number of target words from this program your students recognise. The rationale for this test is to establish a baseline for students' word knowledge so that we can later determine how much progress has been made by students after intervention.

## Preparation

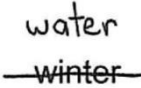


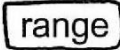
Print a copy of the test script and record form from **Appendix B**.

## Administration



1. Sit across from the student and place the Story Script from Appendix B in front of the child. Have the record form positioned in front of you.
2. The student is required to read the story script from Appendix B.
3. Record each reading error using the symbols found on the *Error Analysis Symbols* chart.
4. Make certain that you have a photocopy of the selected text so that you can mark any errors with the necessary symbols as the student reads from the passage. Previous to the session beginning, count the number of words in the selected passage and record the number of words under **Total Words** on the record form.
5. Begin the analysis by saying to the student, *"Please read this story out loud to me in a nice clear voice. When you come to a word you don't know have a go at working it out, but if you can't get it then move onto the next word as soon as you can.* (Both **time** and **record** the session)
6. Transcribe the errors from the photocopied passage to the Reading Errors Record Form. Use the example form as a guide if needed.

# Reading Miscue Analysis Symbols

## Reading Error Symbols (*Fluency Error Symbols*)

Reading Error	Symbol	Method
Words Replaced		Place a line through replaced word and write target word.
Words Added		Draw a small triangle and write the added word above.
Words Deleted		Draw a line through the deleted word.
Incorrect Words		Draw a square or circle around the miscued word.

## Reading Error Symbols (*Fluency Error Symbols*)

Reading Error	Symbol	Method
Words Repeated		Write <i>r</i> above any words that are repeated.
Word by Word		Draw a line under each word that is read word by word.

Self Correction	SC	Write sc above any words that are self corrected.
Incorrect Phrasing	/	Place a line through missed punctuation.
Pauses while Reading	p	Use <i>p</i> to signal a pause.

<sup>p</sup>  
 The ~~girls~~ and boys walked on the ~~beach~~ <sup>bead</sup> / ~~They~~  
<sup>sc</sup> <sup>p</sup>  
 were walking to ~~school~~ / A boy <sup>he</sup> ~~who~~ <sup>p</sup> had a pool  
<sup>away</sup>  
 at his house ~~also~~ walked to ~~school~~. He did not  
<sup>p</sup>  
 go in the car.

### Reading Error Example

As we can see from this example the student had difficulty reading the passage. The student had both accuracy and fluency errors. Six of the words were either deleted by the student or an incorrect word was substituted, as can be seen with the word *beach*. There are several pauses marked as *p* and also several instances of **word by word** reading.

# **Intervention Ideas**

# Intervention Ideas

## *Direct Instruction Intervention for Reading and Writing Skills*

Direct instruction methods of intervention are highly structured and teacher/clinician assisted. With direct instruction methods, scaffolded support is provided by the teacher to support the learning outcomes of students. Students' errors are designed to be kept to a minimum through careful design and specific feedback. This section contains specific examples of teacher directed instruction using the resources in the *Sounds to Graphemes* program for the teaching of reading and writing skills. The program utilizes many of the words from the *Sentence Creator* program, which can be used as a companion resource.

The *Sentence Creator* and *Sounds to Graphemes* programs both use a limited palette of words to help create predictability for students with early literacy difficulties.. This in turn builds confidence in younger students as they attempt to learn the various grapheme codes and new words. The target words in this program serve as a foundation for eventually recognising the multiple graphemes that are used to represent the 44 sounds of modern English. The examples will demonstrate how to use the *Sounds to Graphemes* materials using various charts and resources from the manual.

### Direct Instruction Method

- a. Structure the student's learning so that each procedure can be broken down into clear, structured and predictable steps.
- b. Select and use structured therapy resources available from this program.
- c. Present all new material with detailed instructions and repeat when necessary. Provide examples as needed.
- d. Ask choice and contrast questions to help shape and scaffold a specific response from the student.
- e. Move the material at a reasonably quick pace.
- f. Provide positive and specific feedback to the student on how well they are progressing.
- g. Rate and chart students' progress as they work through the program.

# Reading Intervention Example

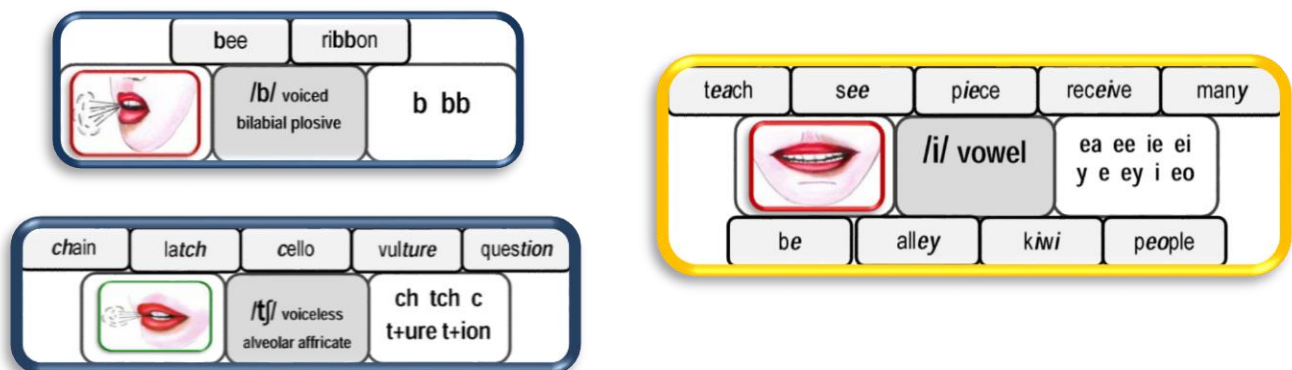
Using our baseline reading assessment results (*P. 12*) we can see that our student, 8 year old Pat (*not his real name*) a grade 2 student, has several reading accuracy and fluency errors. Because of the student's performance on the pre-test the clinician has a good understanding of the student's program word knowledge at this early stage. The clinician decides to target the word *beach* for the initial session.

## Materials

- Small whiteboard & Markers
- Consonant Charts 1-4 Ps. 66-73
- Vowel Charts 1-4 Ps. 75-78
- Story Script from Appendix B P. 88

## Sequence

The clinician places the whiteboard marker before the student and writes the word *beach* in large letters on the whiteboard. The consonant and vowel charts and the *Vowel Curve* illustration are placed to the side for the time being. In preparation for the session the clinician has selected three of the grapheme charts that correspond to the graphemes in *beach*, cut the charts out and laminated each for ease of use.





**Clinician:** ‘Ok Pat, I have written a word on the whiteboard. Do you know what the word says?’

**Pat:** ‘I’m not sure.’

**Clinician:** ‘The word is *beach*. The word beach has 5 letters. Let’s count them together.’

*Both the clinician and Pat count each of the letters. The clinician models by pointing to each letter in turn.*

**Clinician:** ‘Today we’re going to learn a lot of new things about the word *beach*. Words are made up of letters, that’s true. But letters are also made up of *sounds*. The word beach has exactly 3 speech sounds, even though the word has 5 letters it has only 3 sounds.’

*The clinician draws a dash under the three graphemes in the word **beach** . Note that the clinician has placed a small gap between each grapheme to reinforce visually that graphemes can be separated or segmented and are separate entities but still part of the whole.*

b ea ch

**Clinician:** ‘I’ve separated the word beach into separate parts. Let’s say the three sounds of the word *beach* and clap out each sound.’

*The clinician models each sound and segments the word **beach** into separate phonemes, **b ea ch** while clapping each sound. The student follows the clinician’s lead.*

b ea ch

(clap) (clap) (clap)

*The clinician then points to the first grapheme, **b**.*

**Clinician:** ‘Pat can you tell me what this first letter is in the word *beach*?’

**Student:** ‘be. It’s the letter **b**’

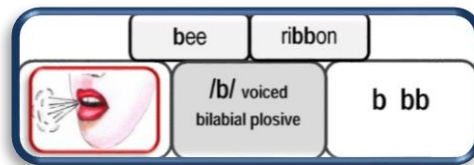
**Clinician:** ‘Certainly it’s the letter **b**. Can you also tell me what *sound* the letter **b** makes?’

*Pat looks confused at this point. Many early-years school-age children have some understanding of phonemic awareness, but a large percentage of students struggle*

separating letters from phonemes. The clinician knows that Pat struggles with phonemes and speech sounds and accordingly has structured phonemic awareness into the session.

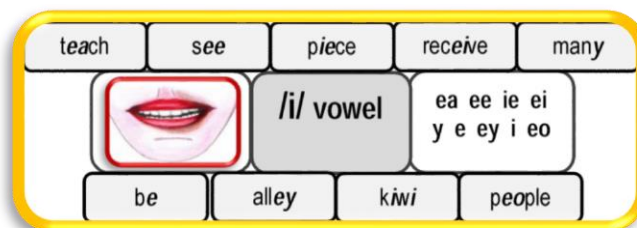
**Clinician:** ‘The letter **b** is actually the sound /b/. Don’t attach a vowel to the consonant. It’s simply /b/. Try that sound for me.’

The student produces the /b/ phoneme correctly without the vowel after following the clinician’s model. The clinician next places the /b/ phoneme to grapheme chart in front of Pat.



**Clinician:** ‘When we make the /b/ sound we close our lips and then release air in a short puff, just like it shows in this picture. We also turn our larynx or voice box on and our throat vibrates. Note also with this chart that it is blue. In this program blue represents consonant sounds. These are different from vowels which we shall talk about later. Also note that on this far right box that it has a single b and a double bb. These are all the graphemes (which is what we call letter combos) that represent the /b/ sound. Up above here we have two words that are examples of words that contain the graphemes b and bb. These are *bee* where the *b* is at the start of the word and *ribbon* where the *bb* is in the middle of the word.’

The clinician points to each box as he explains the role of each box. Understanding the outlay of an individual grapheme chart is important, so it’s ok to spend as much time as needed explaining the significance of each box in the chart. The clinician next places the yellow vowel chart for the /i/ vowel before the student.

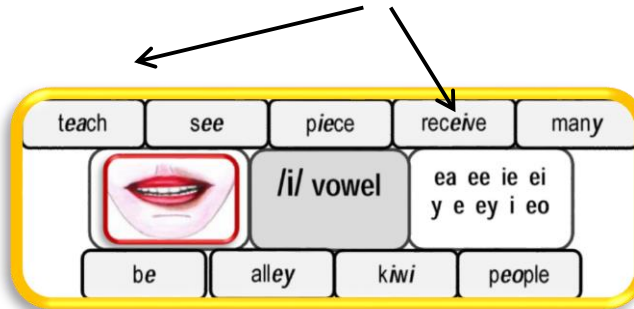


**Clinician:** ‘This is a vowel chart. Note how it’s quite similar to the /b/ chart but has some important differences. First, it’s yellow. This tells us it’s a vowel chart. All words must have a vowel. Our word for today *beach* has a vowel, right in the middle of the word. Second the middle right box has 9 different graphemes that represent the /i/ vowel. Each of the graphemes has its own example.’

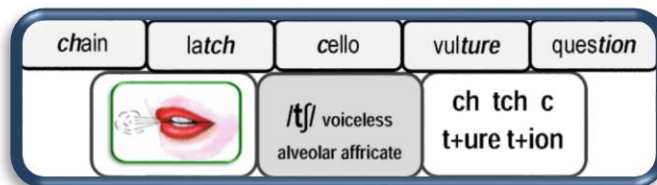
The clinician returns to the whiteboard and points to the ea grapheme in the word *beach*.

b ea ch

**Clinician:** 'This is the /i/ phoneme and is represented by the **ea** grapheme. As we can see from the vowel chart the /i/ vowel can be represented by 9 different graphemes. This helps to explain why reading and spelling is so hard sometimes, because there can be 9 graphemes for a *single* sound.'



The clinician places the vowel chart in front of the student and helps the student to locate the **ea** grapheme and the **ea** example word - follow the arrows. The clinician then reinforces that the **ea** grapheme is one of 9 possible choices for building words and it may take time to learn them all. Next, the clinician places the final consonant chart for the /tʃ/ phoneme on the table.



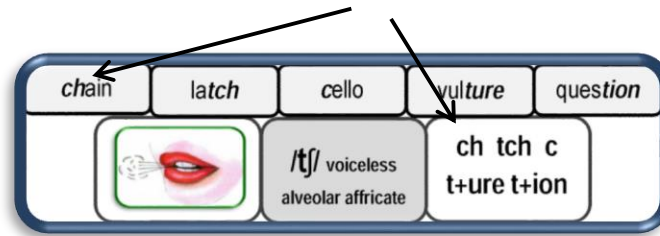
**Clinician:** 'The word beach has three phonemes or sounds. Let's clap out it out again.'

b ea ch

(clap) (clap) (clap)

**Clinician:** 'The final or last sound is the sound /tʃ/ (ch). Let's see if we can find the grapheme for the /tʃ/ (ch) sound on this chart. We make the /tʃ/ sound by pushing out our lips and releasing an explosive puff of air. The /tʃ/ is voiceless which means we don't use our larynx.'

The clinician helps the student locate the **ch** grapheme on the consonant chart. The /tʃ/ (ch) phoneme can also be represented by the graphemes **tch c t+ion** and **t+ure**.



### Summarization

This example session outlines how to use two consonant charts and a single vowel chart to demonstrate to a child the difference and similarities between phonemes (speech sounds) and graphemes (written symbols of phonemes). It is vital to link phonemes to graphemes using the charts and segmentation exercises as was demonstrated in the example.

Each of the 24 consonant blue charts and twenty yellow vowel charts can be cut out and laminated for individual use. This is the preferred method of intervention. But there are also the consonant to grapheme charts and the vowel to grapheme charts on pages 56 - 65 that provide a quick and efficient method of locating a particular grapheme by simply scanning the charts.

The phoneme to grapheme charts should be taught individually using direct instruction methods to a younger child in early years until they have learnt all the words from the Script Story. Once students have completed all of the high frequency words featured in the Story Script then other more elaborate texts with longer and complex words from published stories can be introduced. It is hoped that after spending several hours learning the various consonant and vowel phoneme to grapheme charts, students will have a solid understanding of how to use the charts effectively to enable them to tackle multisyllabic words or words that don't follow spelling rules.

# The 44 Phonemes Charts

# The 44 Phonemes in the English Language

Consonants		
Phoneme	Graphemes	Examples
/p/	p pp	<i>pie pepper</i>
/b/	b bb	<i>bee ribbon</i>
/t/	t tt bt ght ed	<i>the pretty doubt light sapped</i>
/d/	d dd de ld	<i>dig add rode should</i>
/k/	c k ck ch q cc que	<i>car scheme tick kite quiet occur cheque</i>
/g/	g gg gu gue gh	<i>garden egg guess fatigue ghetto</i>
/s/	ps s ss c sc se ce	<i>psyche sit kiss lace scene worse peace</i>
/z/	z zz se s ze ss	<i>zoo jazz raise laser freeze scissors</i>
/ʃ/ (sh)	sh ti ch s ss c c+ion s+ion	<i>shop lotion charade sugar tissue ocean tension mention</i>
/ʒ/ (zh)	s g s+ion	<i>measure beige vision</i>
/f/	f ff ph lf fe	<i>food cliff photo half cafe</i>
/v/	v ve f	<i>vet glove of</i>

# The 44 Phonemes in the English Language

Consonants		
Phoneme	Graphemes	Examples
/θ/ (th)	th	<i>thorn</i>
/ð/ (th)	th the	<i>leather breathe</i>
/tʃ/ (ch)	ch tch c t+ure t+ion	<i>chain latch cello vulture question</i>
/dʒ/ (j)	g j ge dge gg d	<i>general jar sage ledge suggest</i>
/l/	l ll le il al el ul	<i>leaf pill sole devil trial novel/useful</i>
/r/	r rr wr rh	<i>row merry write rhino</i>
/m/	m mm mb me mn	<i>man mammal climb home autumn</i>
/n/	n nn kn ne pn gn en an	<i>nest runner knife done pneumatic align spoken human</i>
/ŋ/ (ng)	ng n	<i>sing sink</i>
/h/	h wh	<i>hello whole</i>
/w/	w wh u o	<i>well whale quiet once</i>
/y/	y u io	<i>yell using onion</i>

# The 44 Phonemes in the English Language

Vowels		
Phoneme	Graphemes	Examples
Short Vowel Sounds		
/æ/ (a)	a	<i>apple</i>
/ɛ/ (e)	e ea ai	<i>set head said</i>
/ɪ/ (i)	i y ui o u a	<i>sit lyric build women business pillage</i>
/ɒ/ (o)	o a ow au ough	<i>hot want knowledge auction cough</i>
/ʌ/ (u)	u o-e o oo ou oe a	<i>nut love son flood country does pappa</i>
Long Vowel Sounds		
/eɪ/ (ae)	a a-e ai ay eigh ey	<i>lady lake sail hay neigh obey</i>
/i/ (ee)	ea ee ie ei y e ey i eo	<i>teach see piece receive many be alley kiwi people</i>
/aɪ/ (ie)	i i-e ie igh uy ai ey y	<i>child device lie sigh buy aisle eye dry</i>
/əʊ/ (oa)	oe oa ough o-e ow o oa	<i>toe oat dough lone snow rogue loan</i>
/u/ (oo)	oo o-e oe ou o oo-e ew u-e wo ui u ue	<i>hoot move shoe you who moose new flute two suit rude flue</i>



# The 44 Phonemes in the English Language

Long Vowel Sounds cont...		
/ɑ/ (ar)	ar a al au ear	<i>star</i> <i>banana</i> <i>palm</i> <i>laugh</i> <i>heart</i>
/ɔ/ (or)	or a au oor ore oar aw ar ough augh	<i>for</i> <i>tall</i> <i>haunt</i> <i>floor</i> <i>tore</i> <i>boar</i> <i>awkward</i> <i>war</i> <i>bought</i> <i>naughty</i>
/ɜ/ (er)	er ir ur or ear our ere	<i>her</i> <i>third</i> <i>fur</i> <i>word</i> <i>hearse</i> <i>journey</i> <i>were</i>
/ɪə/ (air)	air are ere eir ear ayor	<i>hair</i> <i>square</i> <i>there</i> <i>their</i> <i>pear</i> <i>mayor</i>
/ɛə/ (ear)	ear ere eer ier	<i>fear</i> <i>here</i> <i>deer</i> <i>flier</i>
Other Vowel Sounds		
/ʊ/ (oo)	oo u ou	<i>look</i> <i>put</i> <i>should</i>
/aʊ/ (ou)	ou ow ough o-e	<i>mouse</i> <i>now</i> <i>bough</i> <i>towel</i>
/ɔɪ/ (oi)	oi oy	<i>join</i> <i>boy</i>
/ə/ (uh)	schwa vowel	

**Consonant**

**Sound**

**Charts and Sound**

**Stimulation**



# Consonant Sound Charts

In this section of the program the focus is on understanding consonant sounds in more detail. Each consonant sound has a particular sound quality and it is important to know the difference between similar sounding phonemes when attempting to sound out words and segment words. Each sound has a colour picture of a face view that demonstrates a person making a specific consonant sound. Each page has several illustrations.

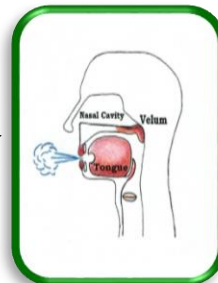
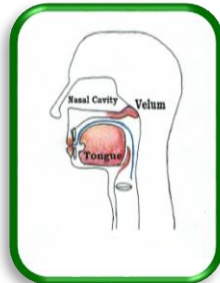


The picture is of the /p/ sound. The *green border* indicates the sound is voiceless. The *puff of air* indicates the sound is a short plosive sound.



The picture is of the /b/ sound. The *red border* indicates the sound is voiceless. The *puff of air* indicates the sound is a short plosive sound.

The picture is a side view of the /p/ sound. The *green border* indicates voiceless. The image shows the tongue, lips and velum blocking the air stream in preparation for a plosive sound release.



The image shows the lips opening and the stream of air being released in a short puff of air to produce the /p/ phoneme.

## Phoneme to Grapheme Chart

	pie	pepper
	/p/ unvoiced bilabial plosive	p pp

Image of correct mouth shape for phoneme with either a green or red border to indicate *voiced* or *voiceless*.

Shows phoneme symbol and type of phoneme.

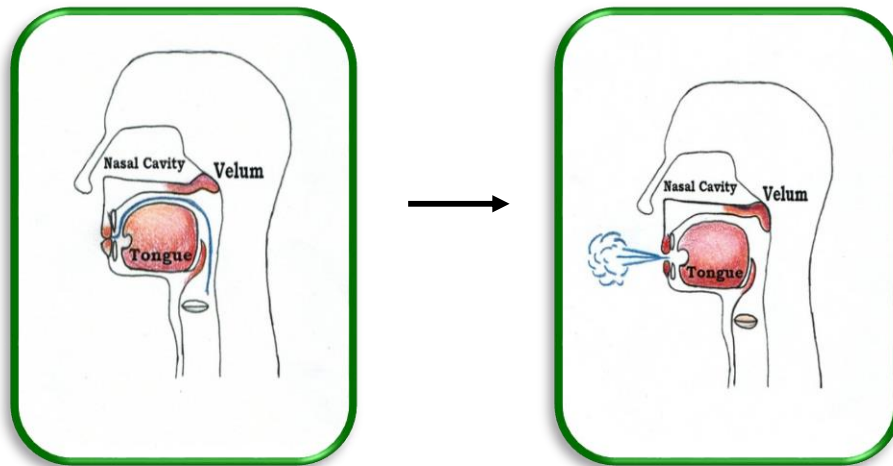
Boxes show various graphemes and examples in words.


## How to make the /p/ sound (*bilabial plosive*)



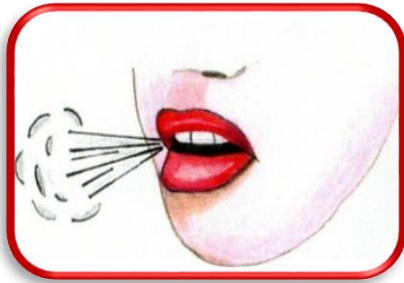
The lips begin in a closed position. Pressure builds *behind* the lips in the oral cavity. The lips then pop open to produce an *explosive* release of air. The /p/ is a quiet plosive, so it's really only a whisper. 'Puh' is incorrect, because the **uh** is an attached vowel. The /p/ is a quiet sound, the larynx does not vibrate.

*Please note that as the diagram reveals the /p/ phoneme has two separate movements. The lips close to allow the build-up of air pressure and then open to produce an explosive release of energy. The larynx does not vibrate.*



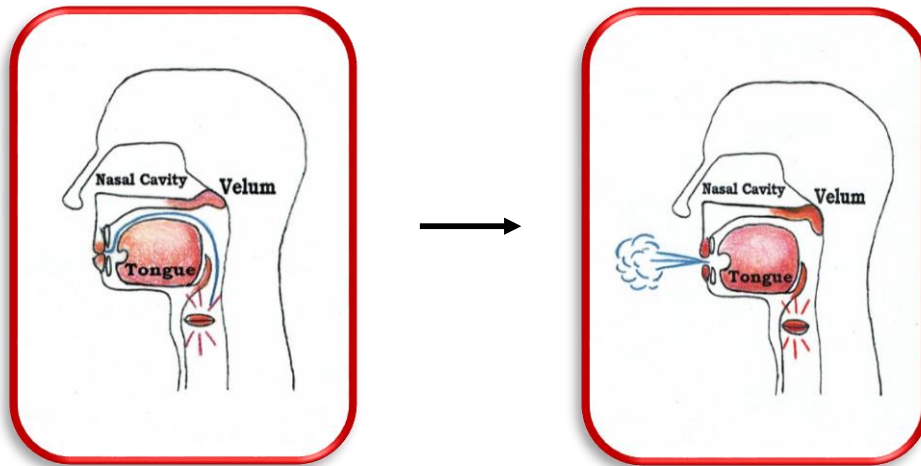
	pie	pepper
	/p/ unvoiced bilabial plosive	p pp

## How to make the /b/ sound (*bilabial plosive*)



Like its unvoiced partner /p/, the /b/ phoneme is created with the lips beginning in a closed position. The closed lips contribute to a build-up pressure *behind* the lips in the oral cavity. The lips then pop open to produce an explosive release of air. The /b/ is a noisy plosive and the larynx vibrates.

*Please note that as the diagram reveals the /b/ phoneme has two separate movements. The lips close to allow the build-up of air pressure and then open to produce an explosive release of energy. The larynx vibrates.*



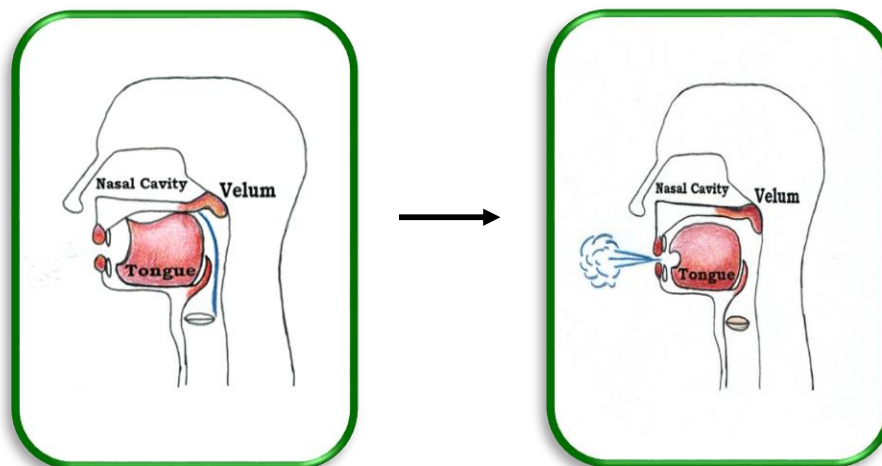
	bee	ribbon
	/b/ voiced bilabial plosive	b bb


## How to make the /t/ sound (*alveolar plosive*)



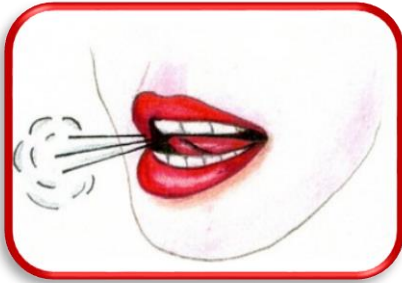
The /t/ is a *quiet* sound. The mouth is slightly open. The tongue rises and touches the roof of the mouth, just behind the top teeth, called the alveolar ridge. There is a small build-up of oral air pressure and then the tongue is released and drops. The pressure is released in an explosive puff of air.

*Please note that as the diagram reveals the /t/ phoneme has two separate movements. The tongue tip contacts the alveolar ridge and then releases to produce an explosive release of energy.*



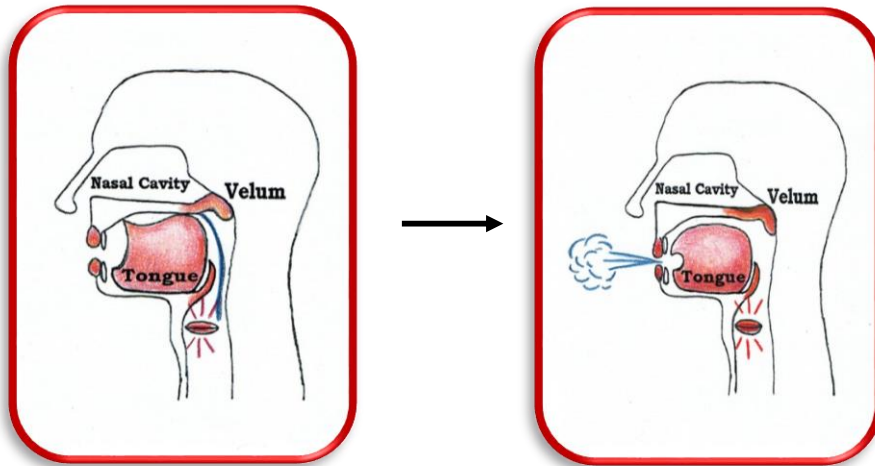
tie	pretty	doubt	light	sapped
	/t/ voiceless alveolar plosive		t tt bt ght ed	

## How to make the /d/ sound (*alveolar plosive*)



As with the /t/ sound the /d/ sound is produced with the mouth slightly open. The tongue rises and touches the roof of the mouth, just behind the top teeth, on the alveolar ridge. There is a build-up of oral air pressure and then the tongue is released. The rapid puff of air makes the /d/ sound. The /d/ is a *noisy*. The larynx **vibrates**.

*Please note that as the diagram reveals the /d/ phoneme has two separate movements. The tongue tip contacts the alveolar ridge and then releases to produce an explosive release of energy.*



<i>dig</i>	<i>add</i>	<i>rode</i>	<i>should</i>
	/d/ voiced alveolar plosive	d dd de ld	

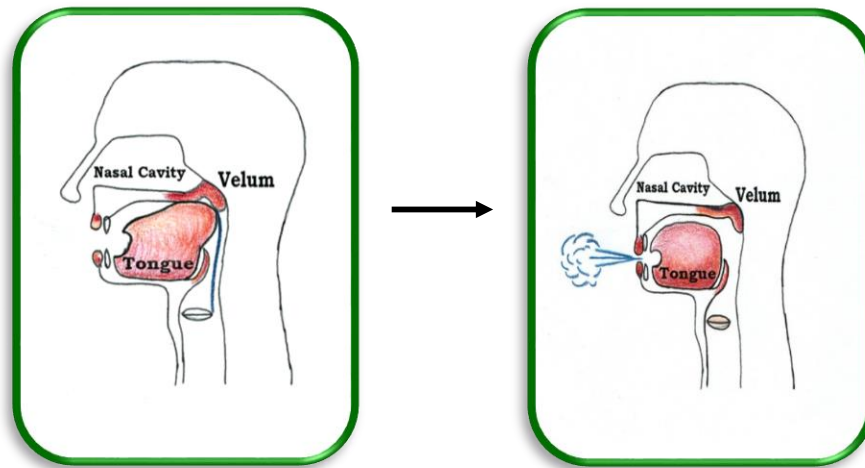



## How to make the /k/ sound (*velar plosive*)



The /k/ sound can be difficult to feel or to do. The tongue pushes up against the velum. A build-up of air pressure occurs before the tongue is released and the breath stream surges as a sudden, short release of explosive air. The /k/ is a *quiet* sound. **Note:** the *velum* closes off the nasal cavity.

Please note that as the diagram reveals the /k/ phoneme has two separate movements. The tongue contacts the velum to block the airstream and then releases to produce an explosive release of energy.



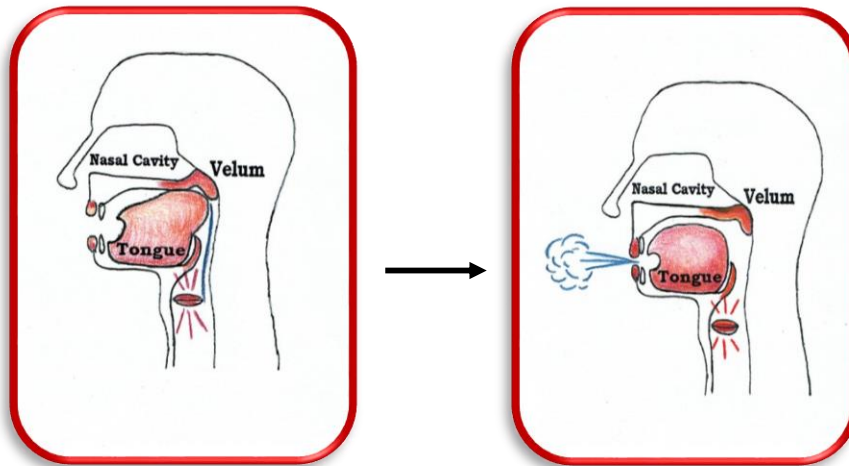
car	scheme	tick	kite	quiet
	/k/ unvoiced velar plosive		c k ck ch q cc que	
occur		cheque		

## How to make the /g/ sound (*velar plosive*)



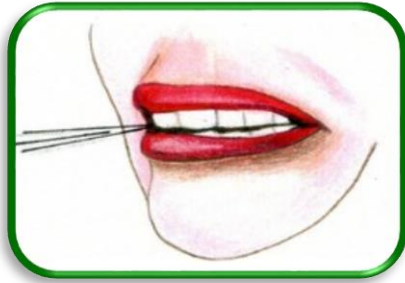
The /g/ sound can be difficult to feel or to do. The tongue pushes to the back of the oral cavity until it presses against the velum. A build-up of air pressure occurs before the tongue is released and the breath stream surges as a sudden, short release of air. The /g/ is a *noisy* sound. The larynx **vibrates**.

*Please note that as the diagram reveals the /g/ phoneme has two separate movements. The tongue contacts the velum to block the airstream and then releases to produce an explosive release of energy.*



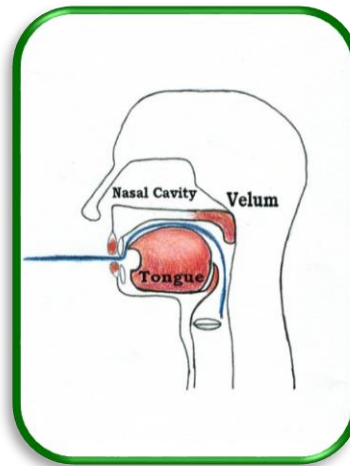
garden	egg	guess	fatigue	ghetto
	/g/ voiced velar plosive		g gg gu gue gh	

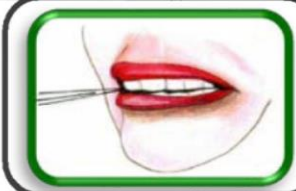
## How to make the /s/ sound (*alveolar fricative*)



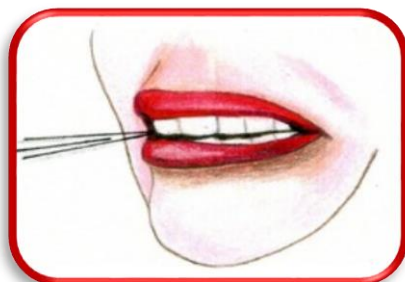
The tongue remains behind the teeth. We direct the airstream over the top of the tongue. The air travels between the small gap between the upper and lower teeth and out of our mouths, in a thin stream. The /s/ is a *quiet*, stream of air sound. **Note:** the velum closes off the nasal cavity.

*The /s/ sound is a continuous stream of air sound. It has a single side view picture because the oral cavity has only a single movement for /s/ production.*



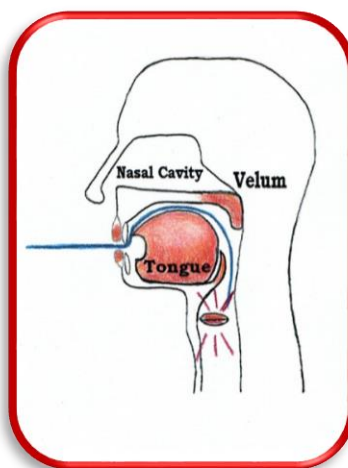
psyche	sit	kiss	lace	scene
	/s/ voiceless alveolar fricative	ps s ss c sc se ce		
	worse	peace		


## How to make the /z/ sound (*alveolar fricative*)



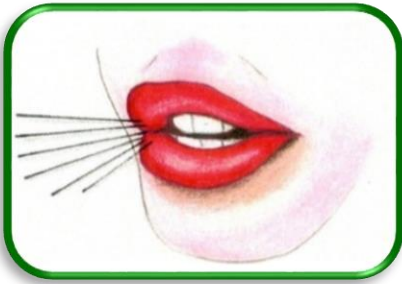
The tongue remains behind the teeth. The airstream is directed over the top of the tongue. The air travels between the small gap between the upper and lower teeth and out of our mouths, in a thin stream. The /z/ is a *noisy*, stream of air sound. **Note:** the *velum* closes off the nasal

cavity and the *larynx* vibrates. *The /z/ sound is a continuous stream of air sound. It has a single side view picture because the oral cavity has only a single movement for /z/ production.*



zoo	jazz	raise	taser	freeze
	/z/ voiced alveolar fricative		z zz se s ze ss	
		scissors		

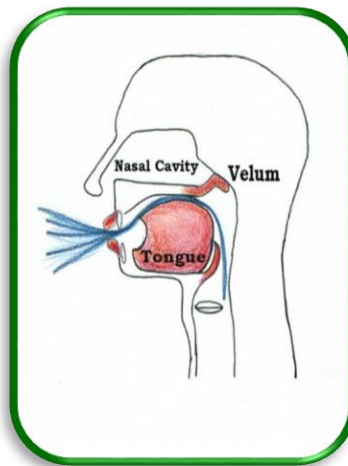
## How to make the /ʃ/ sound (*palatal fricative*)




The /ʃ/ sound is similar to the /s/ sound, but more air is directed over the top of the tongue. Also, the mouth shape is different to /s/ production. The lips are pushed out and a much greater volume of air is released from the mouth. The /ʃ/ is a windy, airy sound.

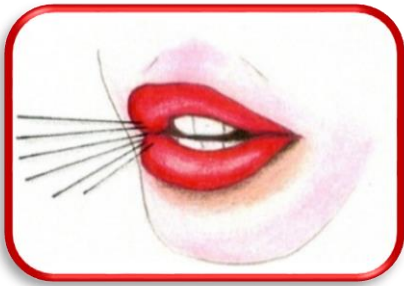
**Note:** the velum closes off the nasal cavity.

*The /ʃ/ sound is a continuous stream of air sound. It has a single side view picture because the oral cavity has only a single movement for /ʃ/ production.*

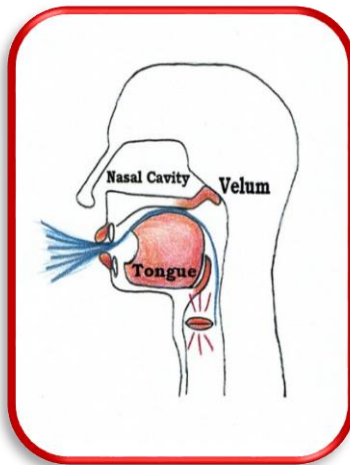



shop	lotion	charade	sugar	tissue
	/ʃ/ voiceless alveolar fricative	sh ti ch s ss c s + ion c + ion		
ocean	tension	mention		

## How to make the /ʒ/ sound (*alveolar fricative*)

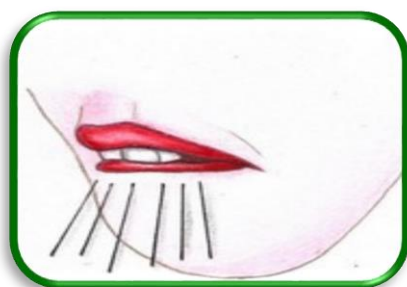


The /ʒ/ sound is similar to the /z/ sound, but more air is blown over the top of the tongue. Also, the mouth shape is different to /z/ production. The lips are extended and pushed out and a much greater volume of air is released from the mouth. The /ʒ/ is a *windy* and *noisy* sound. *The /ʒ/ sound is a continuous stream of air sound. It has a single side view picture because the oral cavity has only a single movement for /ʒ/ production.*



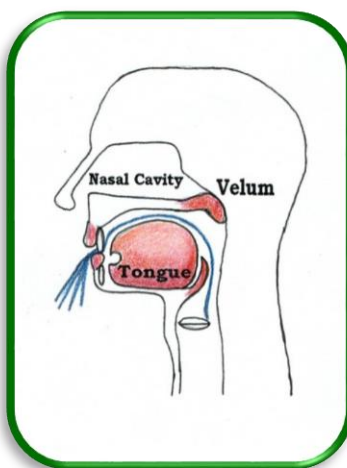
	measure	beige	vision
	/ʒ/ voiced alveolar fricative		s g s+ion

## How to make the /f/ sound (*labiodental fricative*)



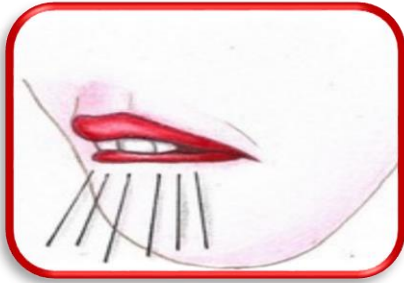
The top teeth cover the bottom lip. Air is expelled over the tongue. The stream of air hits the *back* of the **top teeth** and is directed down over the bottom lip. The air escapes out of the small gap between the top teeth and the bottom lip. The /f/ is a *quiet*, stream of air sound.

**Note:** the velum closes off the nasal cavity *The /f/ sound is a continuous stream of air sound. It has a single side view picture because the oral cavity has only a single movement for /f/ production.*

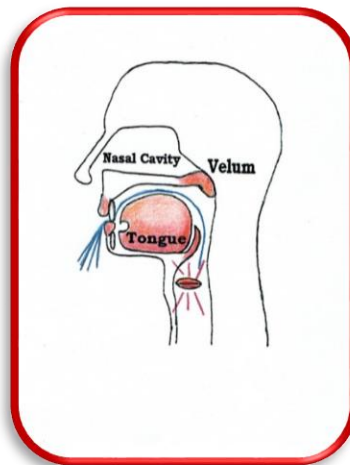



food	cliff	photo	half	cafe
		/f/ voiceless labio-dental fricative	f ff ph lf fe	

## How to make the /v/ sound (*labiodental fricative*)



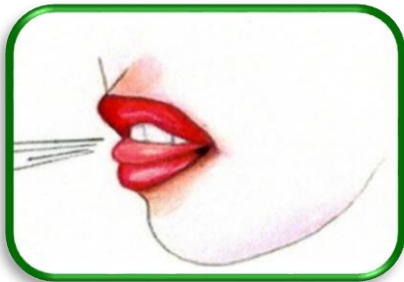
The top teeth cover the bottom lip. Air is expelled over the tongue. The stream of air hits the *back* of the **top teeth** and is directed down over the bottom lip. The air escapes out of the small gap between the top teeth and the bottom lip. The /f/ is a *noisy*, stream of air sound. **Note:** the velum closes off the nasal cavity.. *The /f / sound is a continuous stream of air sound. It has a single side view picture because the oral cavity has only a single movement for /f/ production.*



	vet	glove	of
	/v/ voiced labio-dental fricative		v ve f

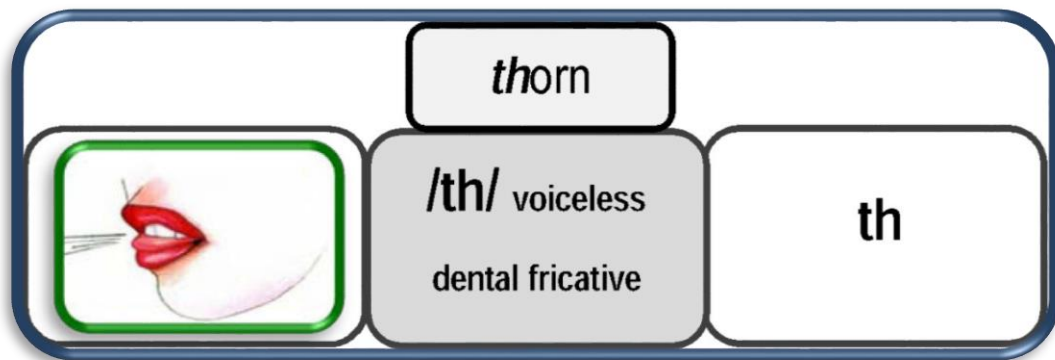
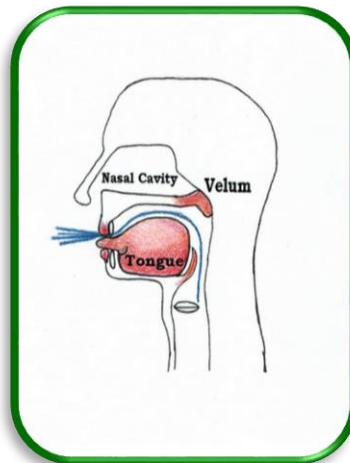


## How to make the /θ/ (th) sound (*dental fricative*)

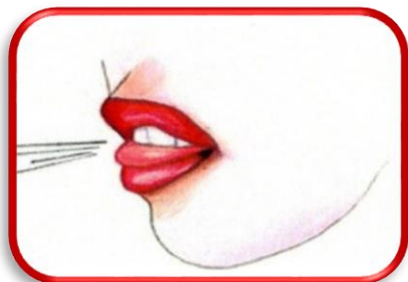


The /θ/ sound is made by slightly lowering the jaw and contacting the upper teeth with the tongue. The contact between tongue and teeth creates a constriction through which the airstream is directed. The /θ/ phoneme is a fricative stream of air sound that is *unvoiced*. *The θ/ sound is a continuous stream of air sound. It has a single*

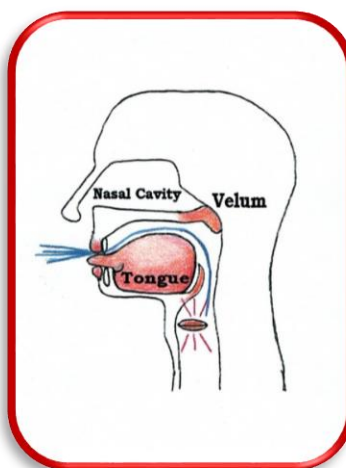
*side view picture because the oral cavity has only a single movement for θ/ production.*




## How to make the /ð/ (th) sound (*dental fricative*)

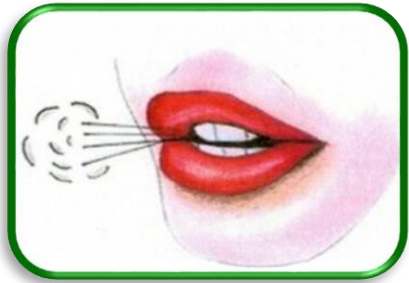


Similar to the /θ/ phoneme, the /ð/ sound is made by slightly lowering the jaw and contacting the upper teeth with the tongue. The contact between tongue and teeth creates a constriction through which the airstream is directed. The /ð/ phoneme is a fricative stream of air sound that is *voiced* in that the larynx **vibrates**. *The /ð/ sound is a continuous stream of air sound. It has a single side view picture because the oral cavity has only a single movement for /ð/ production.*



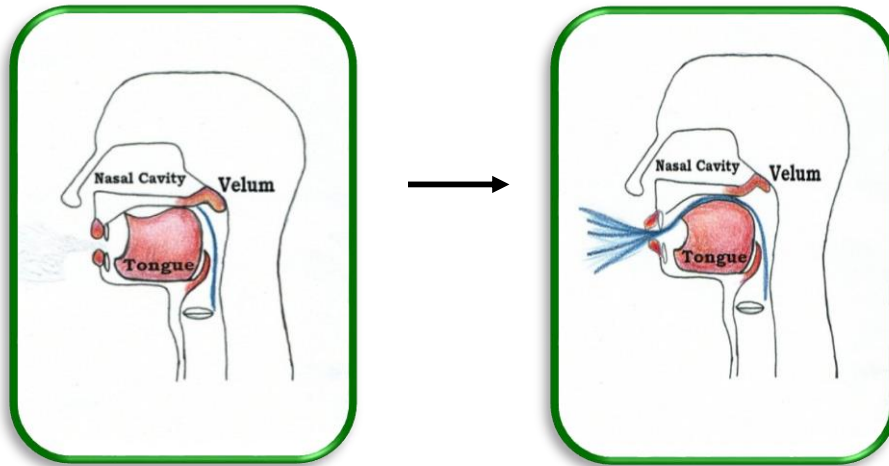
	leather	breathe	
	/th/ voiced dental fricative	th the	

## How to make the /tʃ/ (ch) sound (*alveolar affricate*)



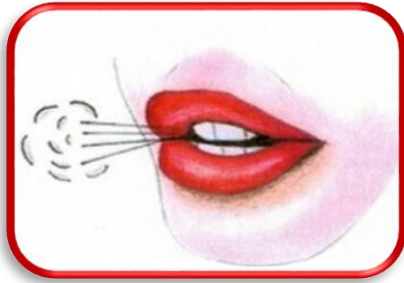
The /tʃ/ sound is made by the tongue tip contacting the alveolar ridge. The sides of the tongue touch the upper teeth, which completely stops the air stream. The tongue is lowered, the air pressure released. The tongue and lips are the same as for the /ʃ/ sound. The air is explosive and windy. The /tʃ/ is a quiet sound.

*Please note that as the diagram reveals the /tʃ/ phoneme has two separate movements. The tongue tip touches the alveolar ridge and is then released as a short windy sound.*



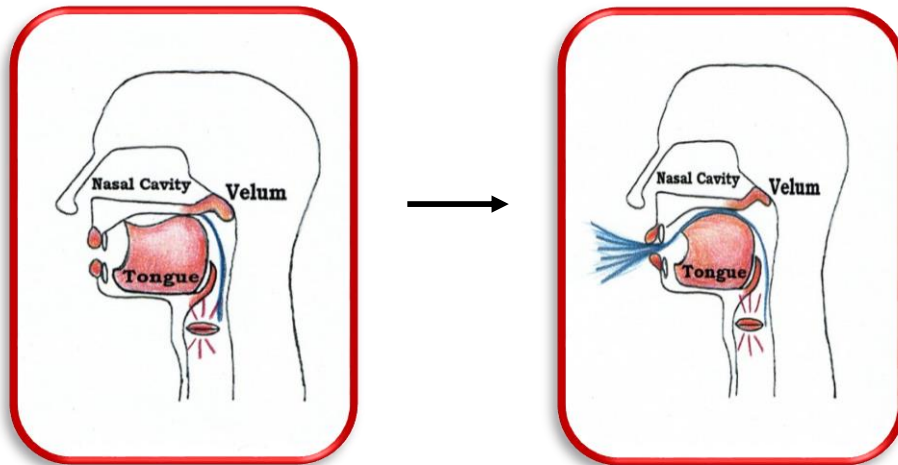
<i>chain</i>	<i>latch</i>	<i>cello</i>	<i>vulture</i>	<i>question</i>
	/tʃ/ voiceless alveolar affricate	ch tch c t+ure t+ion		

# How to make the /dʒ/ (j) sound (*alveolar affricate*)



The /dʒ/ sound is made by the tongue tip contacting the alveolar ridge. The sides of the tongue touch the upper teeth, which completely stops the air stream. The tongue is lowered, the air pressure released. The tongue and lips are the same as for the /ʒ/ sound. The air is explosive and windy. The /d / is a noisy sound.

*Please note that as the diagram reveals the /dʒ/ phoneme has two separate movements. The tongue tip touches the alveolar ridge and is then released.*

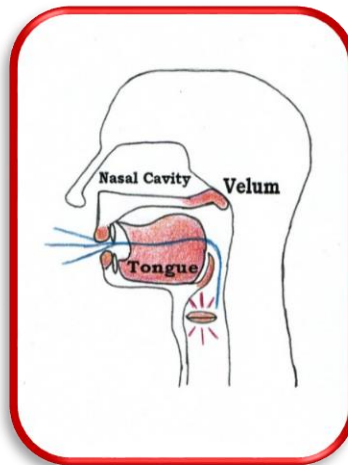



general	jar	sage	ledge	suggest
	/dʒ/ voiced alveolar affricate		g j dʒe gg d	
soldier				

## How to make the /l/ sound (*liquid*)

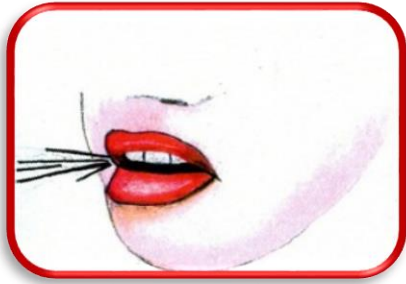


The /l/ sound is made by opening the mouth and raising the tongue so that the tongue tip touches the alveolar ridge, just behind the top teeth. The airstream moves laterally around the tongue and out the opened mouth. The /l/ is a *noisy* sound. The larynx is engaged. *The /l/ sound is a continuous sound. It has a single side view picture because the oral cavity has only a single movement for /l/ production.*

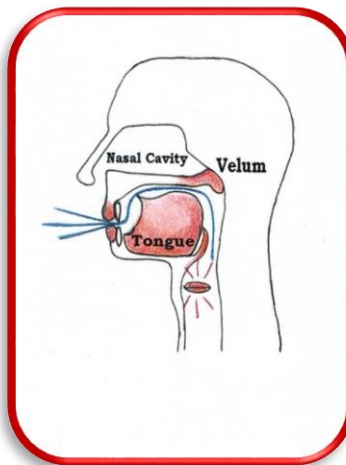


leaf	pill	sole	devil	trial
	/l/ voiced liquid	l ll le il al el ul		
	novel	useful		

## How to make the /r/ sound (*liquid*)



The /r/ sound is made by raising the tongue toward the hard palate. The tongue retracts to the rear of the oral cavity. The tongue tip is *beneath* the hard palate but not touching any structure. The breath stream is directed over the top of the tongue. The /r/ is a voiced sound as the larynx is engaged. *The /k/ sound is a continuous stream of air sound. It has a single side view picture because the oral cavity has only a single movement for /r/ production.*

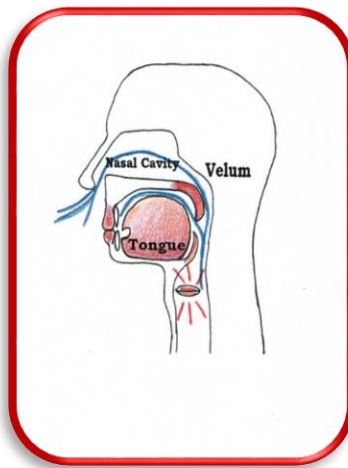



row	merry	write	rhino
	/r/ voiced liquid	r rr wr rh	

## How to make the /m/ sound (*nasal*)



The /m/ sound is made with the mouth closed and the air directed into both the *nasal cavity* and the oral cavity as the velum is relaxed. The air circulating in the nasal cavity makes the nose vibrate. If you feel your nose with your finger you will notice that it vibrates when the /m/ sound is being made. The larynx is engaged. *The /m/ sound is a continuous sound. It has a single side view picture because the oral cavity has only a single movement for /m/ production.*



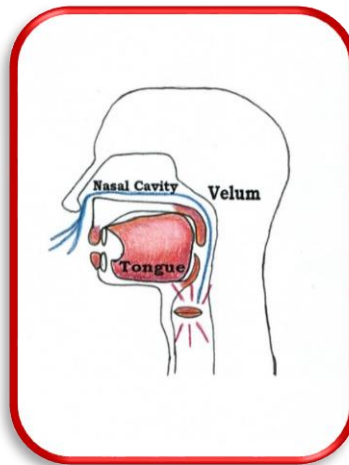
<i>man</i>	<i>mammal</i>	<i>climb</i>	<i>home</i>	<i>autumn</i>
	/m/ voiced bilabial nasal	m mm mb me mn		


# How to make the /n/ sound (*nasal*)



The /n/ sound is made by slightly opening the mouth and lightly touching the alveolar ridge with the tongue tip. The air is thus blocked and is instead directed into the nasal cavity as the velum is relaxed. This circulating air in the nasal cavity causes the nose to vibrate. The larynx is *engaged*.

*The /n/ sound is a continuous sound. It has a single side view picture because the oral cavity has only a single movement for /n/ production.*



nest	runner	knife	done	pneumatic
	/n/ voiced alveolar nasal	n nn kn ne pn gn en an		
align	spoken	human		

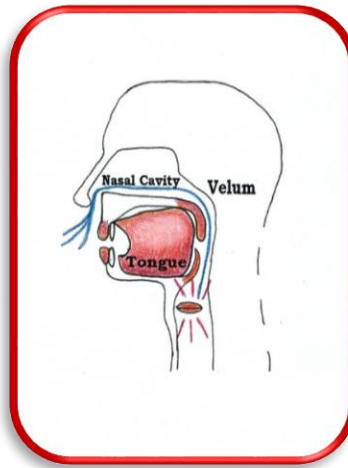



# How to make the /ŋ/ sound (*nasal*)



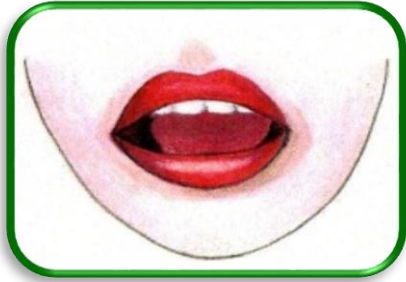
The tongue position for /ŋ/ is similar to the tongue position for /g/. The tongue pushes to the back of the oral cavity against the velum blocking the oral cavity. The velum is relaxed and the air pressure is directed to and released through the nasal cavity, causing it to vibrate. The larynx is *engaged*.

*The /ŋ/ sound is a continuous sound. It has a single side view picture because the oral cavity has only a single movement for /ŋ/ production.*



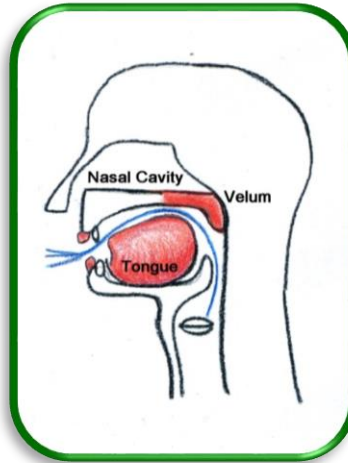
	sing	sink	
	/ŋ/ voiced velar nasal	ng n	


# How to make the /h/ sound



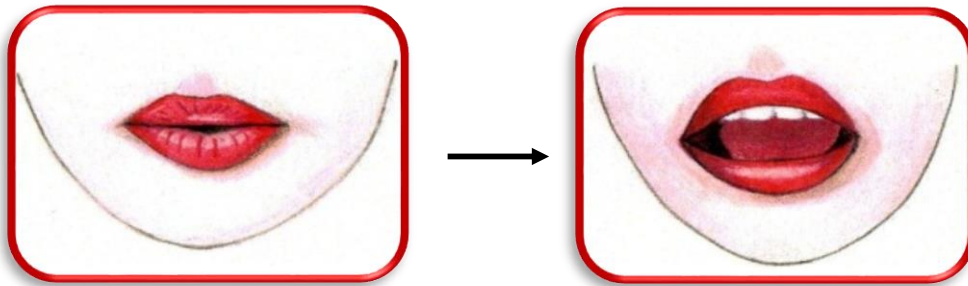
The /h/ sound is classed as a voiceless glottal fricative. No articulatory positions are adopted but the vocal folds are close enough to produce a minimum of friction. The /h/ can be shaped by modelling an energetic and vigorous inhalation and exhalation and exhalation of air.

*The /h/ sound is a continuous sound. It has a single side view picture because the oral cavity has only a single movement for /h/ production.*

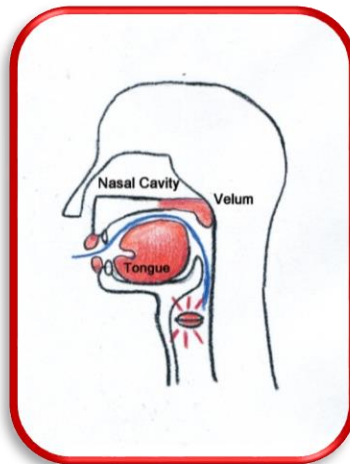



	hello	whole
	/h/ voiceless glide	h wh

## How to make the /w/ sound (*liquid*)



The /w/ sound is a **voiced labio velar glide**. The /w/ sound is made by raising the back of the tongue to the velum without actually touching the velum. Meanwhile the lips begin the phoneme by being rounded in a type of puckered position. The airstream which is voiced passes through the oral cavity while the rounded lips spread rapidly to shape the vowel that is attached to the /w/ phoneme.



well	whale	quiet	once
	/w/ voiced glide	w wh u o	

**Vowel**

**Sound**

**Charts**

# Vowel to Grapheme Charts

The vowel charts have a similar construction to the consonant sound to graphemes charts. However, there are some slight differences. First, the charts have a yellow outline to help distinguish the vowel charts from the blue consonant charts. Second, several of the charts feature two mouth images instead of just one. The two-mouth picture charts demonstrate gliding vowel movement.

## Vowel to Grapheme Chart

The small boxes feature all the graphemes in example words.

The small boxes feature all the graphemes in example words.

Image of mouth shape for the particular phoneme, with a red border to indicate that the vowel is a *voiced* sound.


The shaded box shows the vowel phoneme's IPA symbol.


The large box shows all the graphemes that are partnered with the vowel phoneme.


## Gliding Vowel to Grapheme Chart


The gliding vowel charts differ in that the box has two mouth pictures showing the changing *gliding* nature of the vowel.

## Vowel to Grapheme Charts


sit	lyric	build	women
	/ɪ/ vowel	i y ui o u a	
	business	pillage	


teach	see	piece	receive	many
	/i/ vowel	ea ee ie ei y e ey i eo		
be	alley	kiwi	people	


set	head	said
	/ɛ/ vowel	e ea ai


lady	lake	sail	hay
	/eɪ/ vowel	a a-e ai ay eigh ey	
	neigh	obey	

## Vowel to Grapheme Charts

hot	want	knowledge	<i>auction</i>	<i>cough</i>
		/ɒ/ vowel	o a ow au ough	


		hat		
		/æ/ vowel	a	


nut	love	son	flood	
		/ʌ/ vowel	u o-e o oo ou oe a	
country		does	pappa	

for	tall	haunt	floor	tore
		/ɔ/ vowel	or a au oor ore oar aw ar ough augh	
boar	awkward	war	bought	naughty

# Vowel to Grapheme Charts

star	banana	palm	laugh	heart
		/ɑ/ vowel	ar a al au ea	


her	third	fur	word	hearse
		/ɜ/ vowel	er ir ur or ear our ere	
		journey	were	


child	device	lie	sigh	buy
		/aɪ/ vowel	i i-e igh uy ai ey y	
		aisle	eye	dry




toe	oat	dough	lone	snow
	/əʊ/ vowel	oe oa ough o-e ow o oa		
	rogue	loan		

# Vowel to Grapheme Charts



took	put	should
	/ʊ/ vowel	oo u ou

hoot		move		
shoe	you	who	moose	new
	/u/ vowel	oo o-e oe ou o oo-e ew u-e wo ui u ue		
flute	two	suit	rude	flue



singer	dollar	razor	leisure	cobra
	/ə/ vowel	er ar or ure a e i o u		
dozen	basil	apron	focus	

mouse	now	bough	towel
	→ 	/aʊ/ vowel	ou ow ough o-e

# Vowel to Grapheme Charts

	join	boy	
	→		
	/ɔɪ/ vowel		oi oy


fear	here	deer	flier
	→		
	/ɪə/ vowel		ear ere eer ier

hair	square	there	their
	→		
	/ɛə/ vowel		air are ere eir ear ayor
	pear	mayor	

# Consonant Sounds to Grapheme Charts


# Consonant Sounds – Grapheme Chart 1

p

	pie	pepper	
	/p/ unvoiced bilabial plosive		p pp


p

b

	bee	ribbon	
	/b/ voiced bilabial plosive		b bb


b

t

tie	pretty	doubt	light	sapped
	/t/ voiceless alveolar plosive		t tt bt ght ed	


t

d

dig	add	rode	should
	/d/ voiced alveolar plosive		d dd de ld


d

k

car	scheme	tick	kite	quiet
	/k/ unvoiced velar plosive		c k ck ch q cc que	
occur		cheque		

k


g

garden	egg	guess	fatigue	ghetto
	/g/ voiced velar plosive		g gg gu gue gh	

g


# Consonant Sounds – Grapheme Chart 2

s

psyche	sit	kiss	lace	scene
		/s/ voiceless alveolar fricative	ps s ss c sc se ce	
		worse	peace	


s

z

zoo	jazz	raise	taser	freeze
		/z/ voiced alveolar fricative	z zz se s ze ss	
		scissors		

z

sh

shop	lotion	charade	sugar	tissue
		/ʃ/ voiceless alveolar fricative	sh ti ch s ss c s + ion c + ion	
		ocean	tension	mention


sh

zh

measure	beige	vision
		/ʒ/ voiced alveolar fricative
		s g s+ion


zh

f

food	cliff	photo	half	cafe
		/f/ voiceless labio-dental fricative	f ff ph lf fe	

f


v

vet	glove	of
		/v/ voiced labio-dental fricative
		v ve f

v


# Consonant Sounds – Grapheme Chart 3

th

	thorn	
	/θ/ voiceless dental fricative	th


th

th

	leather	breathe
	/ð/ voiced dental fricative	th the


th

ch

chain	latch	cello	vulture	question
	/tʃ/ voiceless alveolar affricate		ch tch c t+ure t-ion	


ch

j

general	jar	sage	ledge	suggest
	/dʒ/ voiced alveolar affricate		g j dge gg d	
	soldier			

j

l

leaf	pill	sole	devil	trial
	/l/ voiced liquid		l ll le il al el ul	
	novel	useful		

l

r

row	merry	write	rhino
	/r/ voiced liquid		r rr wr rh

r

# Consonant Sounds – Grapheme Chart 4

m

<i>man</i>	<i>mammal</i>	<i>climb</i>	<i>home</i>	<i>autumn</i>
		<b>/m/</b> voiced bilabial nasal	m mm mb me mn	

m

n

<i>nest</i>	<i>runner</i>	<i>knife</i>	<i>done</i>	<i>pneumatic</i>
		<b>/n/</b> voiced alveolar nasal	n nn kn ne pn gn en an	
<i>align</i>		<i>spoken</i>	<i>human</i>	

n

ng

	<i>sing</i>	<i>sink</i>	
		<b>/ŋ/</b> voiced velar nasal	ng n

ng

h

	<i>hello</i>	<i>whole</i>	
		<b>/h/</b> voiceless glide	h wh

h

w

<i>well</i>	<i>whale</i>	<i>quiet</i>	<i>once</i>
		<b>/w/</b> voiced glide	w wh u o

w

y

<i>yell</i>	<i>using</i>	<i>onion</i>	
		<b>/y/</b> voiced glide	y u io


y



# Vowel Sounds to Grapheme Charts


# Vowel Sounds – Grapheme Chart 1

i

sit	lyric	build	women
	/ɪ/ vowel	i y ui o u a	
business		pillage	


i

ee

teach	see	piece	receive	many
	/i:/ vowel	ea ee ie ei y e ey i eo		
be	alley	kiwi	people	


ee

e

set	head	said
	/ɛ/ vowel	e ea ai


e

ae

lady	lake	sail	hay
	/eɪ/ vowel	a a-e ai ay eigh ey	
neigh		obey	

ae


o

hot	want	knowledge	auction	cough
	/ɒ/ vowel	o a ow au ough		

o


# Vowel Sounds – Grapheme Chart 2

a

hat		
	/æ/ vowel	a


a

u

nut	love	son	flood
	/ʊ/ vowel	u o-e o oo ou oe a	
country	does	pappa	


u

or

for	tall	haunt	floor	tore
	/ɔ:/ vowel	or a au oor ore oar aw ar ough augh		
boar	awkward	war	bought	naughty


or

ar

star	banana	palm	laugh	heart
	/ɑ:/ vowel	ar a al au ea		

ar


er

her	third	fur	word	hearse
	/ɜ:/ vowel	er ir ur or ear our ere		
journey		were		

er


# Vowel Sounds – Grapheme Chart 3

ie

child	device	lie	sigh	buy
		/aɪ/ vowel	i i-e igh uy ai ey y	
aisle		eye	dry	


ie

oa

toe	oat	dough	lone	snow
		/əʊ/ vowel	oe oa ough o-e ow o oa	
rogue		loan		


oa

oo

took	put	should
		/ʊ/ vowel
oo u ou		


oo

oo

hoot		move		
shoe	you	who	moose	new
		/u/ vowel	oo o-e oe ou o oo-e ew u-e wo ui u ue	
flute	two	suit	rude	flue

oo

uh

singer	dollar	razor	leisure	cobra
		/ɜ/ vowel	er ar or ure a e i o u	
dozen	basil	apron	focus	

uh

# Vowel Sounds – Grapheme Chart 4

ou

mouse	now	bough	towel
		/aʊ/ vowel	ou ow ough o-e

ou

oy

join	boy		
		/ɔɪ/ vowel	oi oy



oy

eer

fear	here	deer	flier
		/ɪə/ vowel	ear ere eer ier

eer

air

hair	square	there	their
		/ɛə/ vowel	air are ere eir ear ayor
pear	mayor		

ere

## Rating Progress

Rating a student's progress is a necessary measure to ensure that the intervention is working.

- At the completion of a session present the target words to a student and ask him/her to read the words. If the student cannot read the word, score as 0. Next ask the child to attempt the word with a phonemic cue, such as for dog, '*Is it d... ?*'
- After 5 minutes present the student with a pencil/paper or whiteboard/marker and ask the student to write the target word/s without any cue.
- If the student cannot write the word correctly, score the result as 2, but if the student can write the word independently score the result as 3.
- Retest the target words at the beginning of next session to ensure that the child has retained the word.

## Rating Progress Chart - Photocopiable

Score	Description – <i>Word</i>		
0	The student cannot recognise the target word.		
1	The student can recognise the word with a phonemic cue prompt.		
2	The student can recognise the word but cannot write the word correctly.		
3	Student has a good understanding of the word and can write it correctly.		
Student	Word	Word	Word
_____	_____	_____	_____
Date _____	Score _____	Score _____	Score _____
Date _____	Score _____	Score _____	Score _____
Date _____	Score _____	Score _____	Score _____
Date _____	Score _____	Score _____	Score _____
Date _____	Score _____	Score _____	Score _____

# References

DeKemel, K. (2003) *Intervention in Language Arts: A Practical Guide for Speech-Language Pathologists* Butterworth-Heinemann

Justice, L. (2006) Evidence based practice, response to intervention, and the prevention of reading disabilities. *Language, Speech, and Hearing Services in Schools, 37*, 284-297

Kaderavek, J. N. (2010) *Language Disorders in Children: Fundamental Concepts of Assessment and Intervention*. Allyn & Bacon

ladefoged, P. (1993) *A Course in Phonetics, Third Edition* Harcourt Brace College Publishers

Lindamood, P & Lindamood, P. (1998) *The Lindamood Phoneme Sequencing Program for Reading, Spelling and Speech, Third Edition* Pro-Ed

Passakos-Pappas, P. (2004) *Making Sense of Sounds: Booklets 1 and 2* Self-Published

Schuele, C.M. & Boudrea, D. Phonological Awareness Intervention: Beyond the Basics. (2008) *Language, Speech and Hearing Services in Schools* Vol. 3 - 20

Torgeson, J., Al Otaiba, S. & Kosanovich, M.L., (2012) *Assessment and Instruction for Phonemic Awareness and Word Recognition Skills*. In H. Catts & A. Kamhi *Language and Reading Disabilities* Third Edition pp 112 – 145 Boston Allyn & Bacon.



# Appendix A

## Consonant Grapheme Symbols

p	b	t	d	m
n	ng	k	g	f
v	w	h	wh	th
<u>th</u>	s	z	l	r
c	sh	zh	j	x
qu	y	ch		

## Vowel Grapheme Symbols

<b>ee</b> <i>/i/</i>	<b>i</b> <i>/ɪ/</i>	<b>e</b> <i>/ɛ/</i>	<b>ae</b> <i>/eɪ/</i>	<b>a</b> <i>/æ/</i>
<b>u</b> <i>/ʌ/</i>	<b>o</b> <i>/ɑ/</i>	<b>au</b> <i>/ɔ/</i>	<b>uh</b> <i>/ə/</i>	<b>oe</b> <i>/ɚ/</i>
<b>uu</b> <i>/u/</i>	<b>oo</b> <i>/ʊ/</i>	<b>ie</b> <i>/aɪ/</i>	<b>ue</b> <i>/ue/</i>	<b>oi</b> <i>/oi/</i>
<b>oy</b> <i>/ɔɪ/</i>	<b>ou</b> <i>/aʊ/</i>	<b>ow</b> <i>/aʊ/</i>	<b>ir</b> <i>/ɜ/</i>	<b>er</b> <i>/ə/</i>
<b>ur</b> <i>/ɜ/</i>	<b>or</b> <i>/ɔ/</i>	<b>ar</b> <i>/ɑ/</i>	<b>ear</b> <i>/ɛə/</i>	<b>air</b> <i>/ɪə/</i>

## Vowel Graphemes

<b>ee</b>	<b>i</b>	<b>e</b>	<b>ae</b>	<b>a</b>
<b>u</b>	<b>o</b>	<b>au</b>	<b>uh</b>	<b>oe</b>
<b>uu</b>	<b>oo</b>	<b>ie</b>	<b>ue</b>	<b>oi</b>
<b>oy</b>	<b>ou</b>	<b>ow</b>	<b>ir</b>	<b>er</b>
<b>ur</b>	<b>or</b>	<b>ar</b>	<b>air</b>	<b>ear</b>

# Appendix B

# Assessment Story Script

The girls and boys walked on the beach.  
They were walking to school. A boy who  
had a pool at his house also walked to  
school. He did not go in the car today.

# Story Script Record Form

Student: _____	Date: _____	Total Words: _____
Reading Time: _____	Errors: _____	

*Refer to the accuracy and fluency charts from the assessment section for instructions on how to mark student decoding errors.*

The girls and boys walked on the beach. They were walking to school. A boy who had a pool at his house also walked to school. He did not go in the car.

## Reading Errors (*Accuracy Errors*)

Words Replaced \_\_\_\_\_

Words Deleted \_\_\_\_\_

Words Added \_\_\_\_\_

Words Incorrect \_\_\_\_\_

**Total Accuracy Errors:** \_\_\_\_\_

## Reading Errors (*Fluency Errors*)

Words Repeated \_\_\_\_\_

Words out of Sequence \_\_\_\_\_

Word by Word \_\_\_\_\_

Pauses While Reading \_\_\_\_\_

Self Correction \_\_\_\_\_

**Total Fluency Errors:** \_\_\_\_\_

## Words Used in *Sound to Graphemes* Program

Word	Graphemes	Phonemes
the	the	th ə
girls	g ir l	g ɜ l
and	a n d	æ n d
boys	b oy s	b oi z
boy	b oy	b oi
walked	w al k ed	w ɔ lk d
walking	w al k i ng	w ɔ lk ɪ ŋ
on	o n	ɒ n
they	th ey	th eɪ
were	w ere	w ɜ r
to	t o	t u
school	s ch oo l	s k u l
who	wh o	h u
had	h a d	h æ d
pool	p oo l	p u l
at	a t	æt
his	h i s	h ɪ z
house	h ou se	h aʊ se
also	a l s o	ɔ l s əʊ
did	d i d	d ɪ d
not	n o t	n ɒ t
go	g o	g əʊ
in	i n	ɪ n
car	c ar	k ɑ



