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LETRS
Language Essentials for Teachers of Reading and Spelling

Tools 4 Reading, Founder and President
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Beginning Sound Walls

What?
Why?
How?

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Reading Acquisition and the Role of Articulation

We are wired to process language unconsciously.

Speech → **Print**

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Current Word Walls

- The organization is A-Z ...most of the time
- Words are listed by the first letter
- Where do you tell students to find these words?
 - know the
 - write she
 - of are
 - one I
- Focus tends to be different in every classroom
- Disconnect between purpose and expectation

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Tear Down Current Word Walls

- Alphabetic word walls defeat the purpose of displaying factually how phoneme awareness works
- Word walls obscure the nature of how the system works
- What is the most productive way to teach the phonological system?
 - Phonemic awareness vs. phonemic exercises
 - Directly teach articulatory gestures or motoric mouth movements (acoustic event)
 - Create awareness of the features of the mouth and the production of sounds (tongue, ridge, middle, back)

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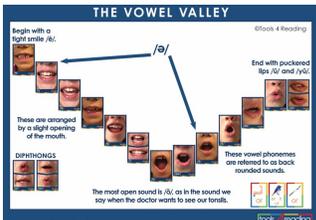
Word Wall

Sound Wall

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Word Wall - A

- Alphabetic word walls defeat the purpose of displaying factually how phoneme awareness works

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Rationale

- We have a speech sound system that is different from our phonics system.
- The merging of speech sounds in spoken language makes it difficult to identify single sounds.
- Knowing the sounds before having to extract them from words makes the process of segmenting, blending and manipulating sounds easier.
- If speech sounds are stored inaccurately it will cause a breakdown – establish a template by teaching the organization of phonemes.



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Kindergarten - 2nd Focus on Phonemes and Graphemes

- Phoneme /n/
- Grapheme kn, n
- Connect to Meaning




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Ehri's Phases of Word Reading Development

- Sound walls are a tool for moving students from pre-alphabetic to later alphabetic phase.



Orthographic Mapping in the Acquisition of Sight Word Reading, Spelling Memory, and Vocabulary Learning, Ehri, 2014



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Who Benefits from Sound Wall Instruction?

- Students in the pre-alphabetic and early alphabetic phases of reading will benefit.
- How do they benefit?
- By building associations linking gestures, keywords, and speech sounds through emphasized articulation.



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Acquiring Letter Knowledge During the Early Alphabetic Phase

- Teaching the features of letters – straight lines, curves, both?
- What are the features of the letter t or m?
- Moving to digraphs – th, sh
- This is a prerequisite for learning phonics – known as the alphabetic principle
- 1 to 1 correspondences



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Unlearning Mirror Invariance – Dehaene, 2013

- Two views of the same object
- Reading acquisition places an unusual constraint on the visual system – p, q, b, d – we must learn to read these letters perfectly, because they point to different phonemes.




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Unlearning Mirror Invariance – Dehaene, 2013

- "This mirror competence slowly disappears during reading acquisition, but it remains present in illiterate people who, contrary to literates, exhibit no cost at all in recognizing a learned object in mirrored form."




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Moving through Ehri's Phases

What does it take to move students from the early alphabetic phase to the later alphabetic phase?

- Phonemic awareness – blending and segmenting 4-5 phonemes in a word
 - Pre-requisite for phonological recoding to get to unitization
- Knowing the difference between letter names and letter sounds



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Why Use a Sound Wall?

- We need an accurate depiction of speech to print.
- Each element can be learned like multiplication tables or chemistry charts.
- Our language is more understandable if we explain how sounds are organized.
- Sound walls establish a template for learning about the language by anchoring to articulatory gestures.



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A Template of a Sound Wall

THE CONSONANT CHART

PLACE IN MOUTH BEFORE PHONEME IS PRODUCE

Place	Labial	Alveolar	Palatoalveolar	Palatal	Velar
Labial	[p]				
Alveolar		[t]	[d]		
Palatoalveolar			[tʃ]	[dʒ]	
Palatal				[j]	
Velar					[k]

THE VOWEL VALLEY

Begin with a tight smile (i:/e/)

End with puckered lips (u/ o/ and /oʊ/)

These are arranged by a slight opening of the mouth.

DIPHTHONGS

These vowel phonemes are related to the back rounded sounds.

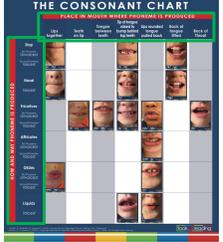
The most open sound is /ɔ:/ as in the sound we say when the doctor wants to see our tonsils.



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Language System Organized Around Our Speech Sounds - Consonant Phonemes

- Place of Articulation
 - Where in the mouth the sound originates
- Manner of Articulation
 - What we do with our breath and our vocal cords




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How Do I Set Up and Use a Sound Wall?

- Set up according to the articulation of speech sounds
- Production of sounds moving from the front of your mouth to the back of the throat
- Approaching things from a learner viewpoint rather than a teacher viewpoint
- An anchor to teach letter – sound knowledge using articulatory gestures
- Attaching phonemes to orthographic patterns
 - Print is the link



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Think About Phonemes

- Hearing sounds in words – “ear”
- Articulatory gestures – “mouth movements”
 - Sounds are fleeting and disappear as soon as they are heard
 - Liberman (1999) suggests articulatory gestures rather than acoustic features represent phonemes in the brain.




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Focus on Phonemes and Articulation

- Mouth positions are tangible and can be felt, viewed in a mirror, and analyzed by learners. (Ehri, 2014)
- Building towards phonemic proficiency
 - Say 'fry' change /r/ to /l/
 - 2 second response
- Mirrors - www.tools4reading.com




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Articulatory Features

1. Special Notes for the Teacher:
This segment includes the features of the phoneme being studied. What makes this phoneme sound different from the others? What are our teeth, lips, tongue, etc. doing? It is highly recommended that you study this portion of the lesson prior to teaching it.

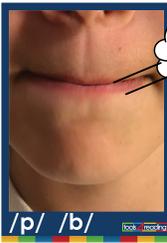
SPECIAL NOTES FOR THE TEACHER
Sound features for /f/:

- ▶ **Labiodental:** These sounds are made when the lower lip is raised towards the upper front teeth.
- ▶ The /f/ is produced by curling your lower lip back, raising it to touch your upper row of teeth, and blocking the airflow out of your mouth. If you place your hand in front of your mouth, you can barely feel the air escaping. But, you can hear the friction as the air is being forced out of your mouth. Therefore, the /f/ is also called a **fricative**.
- ▶ **Unvoiced:** /f/ as in fish, is produced **without** activating your voice box, the vocal cords are **not** vibrating.




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Stop Consonants – a quick push of breath



/p/ /b/



/t/ /d/



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Fricatives - there is friction in the airflow

/f/ /v/ /th/ /th/ /s/ /z/ /sh/ zh/ /h/



/sh/ /zh/



/th/ /th/

What is causing the friction when making these sounds?
Lips, teeth, or tongue?



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THE CONSONANT CHART

PLACE IN MOUTH WHERE PHONEME IS PRODUCED

	Lips	Teeth	Tongue between	Tip of tongue raised to bump behind	Lips rounded	Back of tongue
Stop 1. Unvoiced p, t, k						
Nasal 2. Voiced m, n, ŋ						
Approximate Unvoiced Approximate 3. Unvoiced f, θ, s, ʃ, tʃ, k						
Approximate Unvoiced Approximate 4. Unvoiced f, θ, s, ʃ, tʃ, k						
Approximate Unvoiced Approximate 5. Unvoiced f, θ, s, ʃ, tʃ, k						
Liquids 6. Voiced l, r						

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How We Produce Vowel Phonemes

- 5 vowel letters – 18 vowel phonemes
- Labels for place and what we do with our tongue as we open or round our lips

Front

Smile

Middle

Open

Back

Rounded

- Where in the mouth is the sound being produced?

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THE VOWEL VALLEY

Begin with a light smile /ə/.
End with puckered lips /i/ and /y/.

These are arranged by a slight opening of the mouth.

These vowel phonemes are referred to as back rounded vowels.

DIPHTHONGS

VOWEL-R

The most open sound is /ɔ:/ as in the sound we say when the doctor wants to see our tonsils.

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Daily Review 1

- Point to all of the sounds posted on the consonant chart asking students to repeat them after you. Reminder - they are arranged from the front of the mouth to the back of the mouth.



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Daily Review 2

- Ask questions:
 - What are the three sounds that are made by the air flowing through the nose?
 - Point to /m/, /n/, /ng/ until students can respond independently.
 - What two sounds are made when I put my top teeth on my bottom lip and blow?
 - /f/, /v/



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Daily Review 2

- How do I spell /v/ at the end of a word?
 - _ve
- Which sound is voiced?
 - /s/ or /z/
- What sound do you hear at the end of these words?
 - has, was, is



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Daily Review 3

- Point to all of the sounds on the vowel chart as you say them asking children to repeat each sound.
- Point to /ā/ give keyword apple as students say the sound as they make a gesture as if holding an apple.
- Point to the /ĭ/ give keyword itch as students say the sound and make the itching gesture.



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Daily Review 4

- Focus on specific spelling patterns
- Use the sound to determine spelling choices that have been introduced.
- What are my choices for spelling /k/?
 - K, c, _ck
 - When do I use _ck?
- What are my choices for spelling /t/?
 - When do I use _ff?
 - Let's segment a word...



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LET'S STAY IN TOUCH!

Connect with us on social media!



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