Lorrie Wolf

- Certified, Academy of Orton-Gillingham Practitioners and Educators

- Certified Dyslexia Therapist, CERI

- Director/Founder Educational Therapy Center

- Member, International Dyslexia Association

- Parent of Dyslexic

IGAPS 2019

- What is Dyslexia

- What it is Not

- What is Structured Literacy

Educational Therapy Center

International Dyslexia Association

The Yale Center for Dyslexia and Creativity

Decoding Dyslexia

Reading Rockets WETA

Teachers Need Specialized Training

…Even the most competent teacher cannot be successful in teaching reading, especially to children who are at-risk or struggling with literacy, if provided with inadequate instructional contexts or inappropriate instructional materials and **approaches**…

2017 National Assessment of Educational Progress

4th grade students

63% of students score below proficiency in reading.

72% of students score below proficiency in writing.

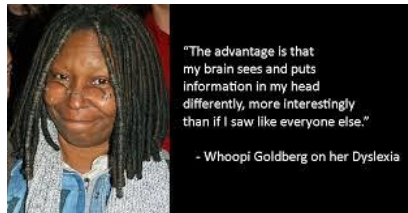Structured Literacy programs are effective not just because of

WHAT is taught,

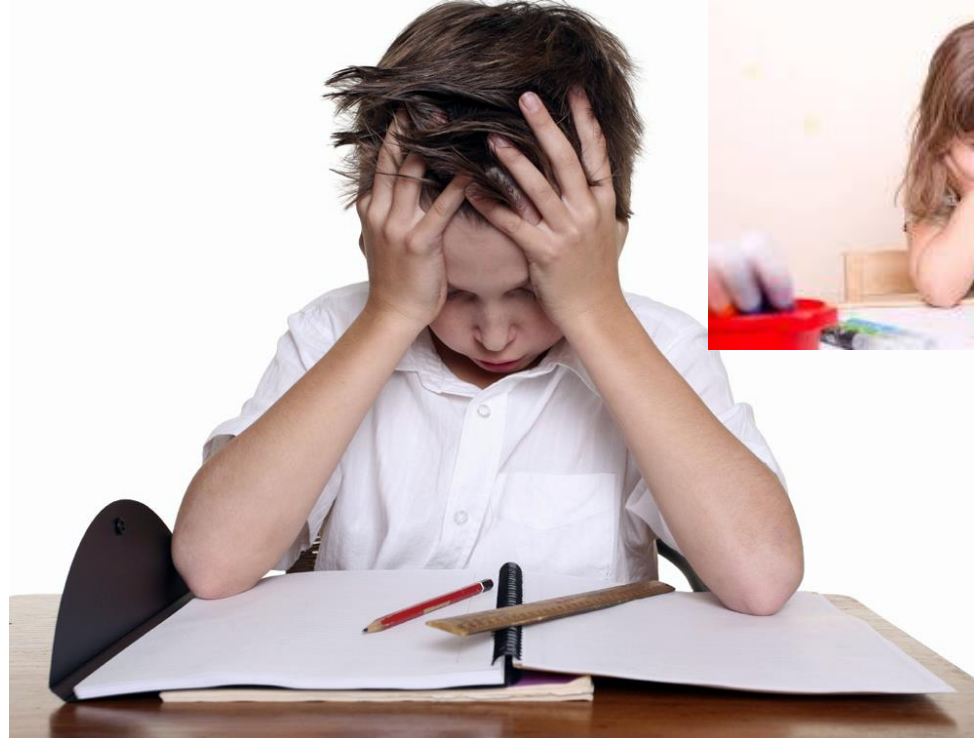but because of

the WAY it is taught.

The International DYSLEXIA Association

Promoting literacy through research, education, and advocacy.

SHARK TANK

"The advantage is that my brain sees and puts information in my head differently, more interestingly than if I saw like everyone else."

- Whoopi Goldberg on her Dyslexia

Famous dyslexics @EUdyslexia

Any of these
people
look more
familiar??

Dyslexia is not a disease

A medical diagnosis is often required by schools.

Other disabilities may co-occur, but are not the cause. 30% of our students also have ADHD diagnosis.

An educational "treatment plan" is what the child needs.

The International **DYSLEXIA** Association
Promoting literacy through research, education, and advocacy.

International Dyslexia Association definition:

Dyslexia is a *specific learning disability* that is *neurobiological* in origin. It is characterized by *difficulties with accurate and/or fluent word recognition and by poor spelling and decoding abilities*. These difficulties typically result from a deficit in the *phonological* component of language that is often *unexpected* in relation to other cognitive abilities and the provision of effective classroom instruction. *Secondary consequences* may include problems in reading comprehension and reduced reading experience that can *impede growth of vocabulary and background knowledge*.

Developed in 2002 by the IDA under the leadership of G. Reid Lyon of the National Institute of Child Health Development.

The "difference" goes undetected until learning to read and write.

- Often undetected until 3rd grade.

- Self-image hard to change after age 10.

- Research suggests that the feelings of inferiority develop by age 10.

- Powerful argument for early intervention.

Dyslexia

Difficulties with
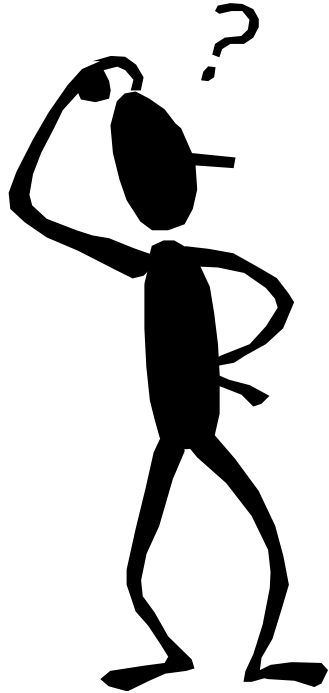
Reading

Spelling

Auditory
Processing

Non-verbal
Learning

Written Language

Reading Comprehension

Difficulties can occur in:

- Reading
- Writing
- Spelling
- Speaking
- Processing oral and written language
- Word retrieval
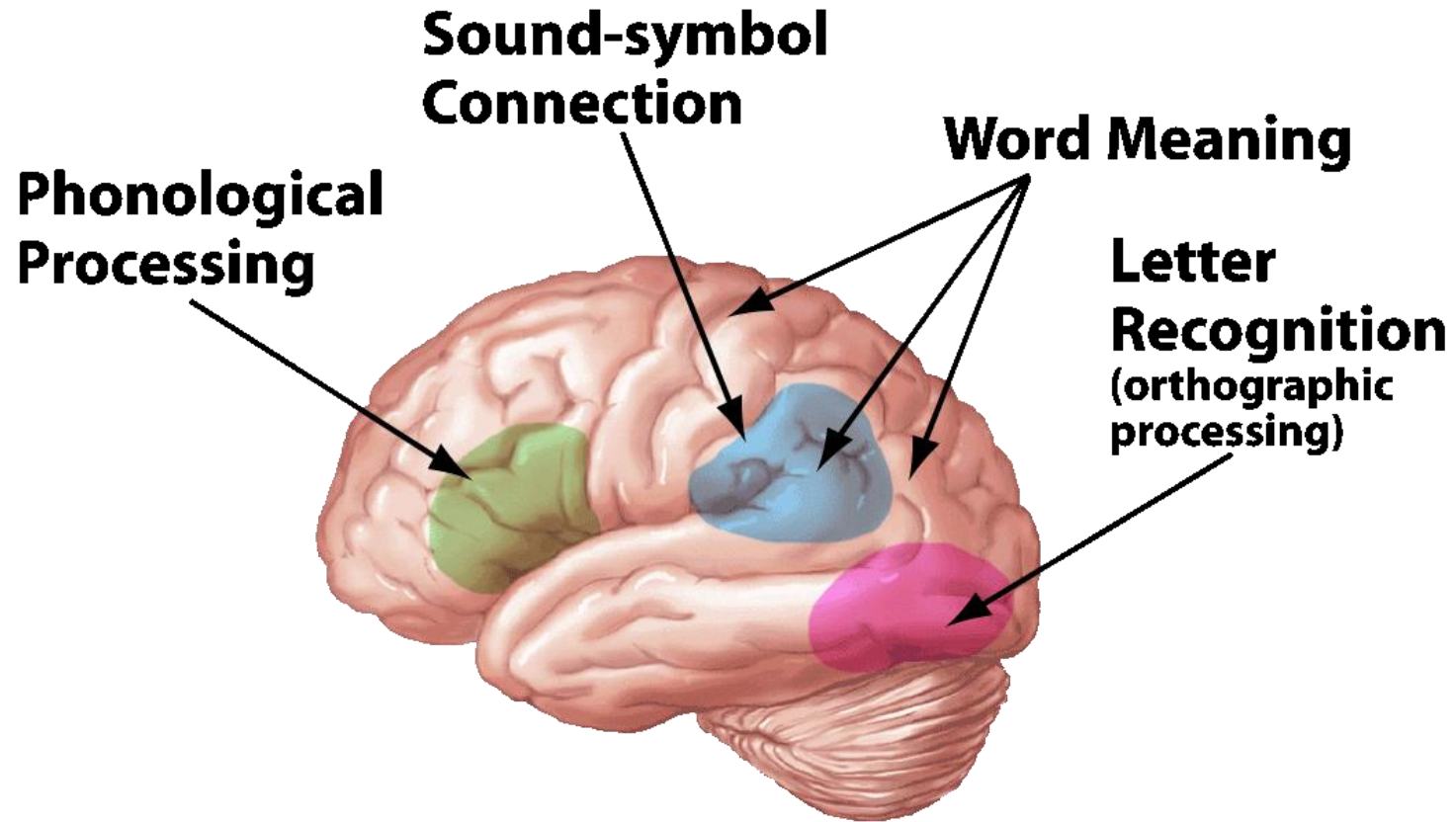- Mathematics

Difficulties vary in each individual.

Reading is complex

orthography (the written form)

phonology (the sound structure)

These allow us to pronounce words and gain access to meaning.

No "reading center" of the brain

Brain: Functional Neuroanatomy

- Each processing system operates in a distinct region of the left brain.

- Rapid communication among regions is essential.

- Reading problems can originate in one or several systems.

- All systems must be educated.

Typical Brain / Dyslexic Brain comparison

Typical

Dyslexic

🔴 Broca's area, Inferior frontal gyrus
(articulation/word analysis)

🔵 Parieto-temporal
(word analysis)

🟢 Occipito-temporal
(word form)

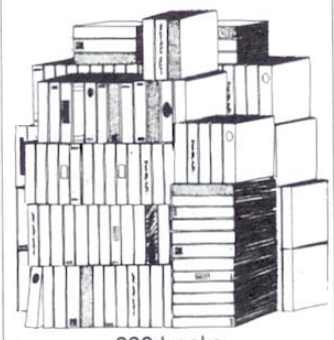🔴 Broca's area, Inferior frontal gyrus
(articulation/word analysis)

THE YALE CENTER FOR
DYSLEXIA &CREATIVITY

	Slow Reader (150 words per minute)	**Fair Reader** (250 words per minute)	**Good Reader** (350 words per minute)
1 WEEK	¾ book	1¼ books	1¾ books
1 MONTH	3 books	5 books	7 books
1 YEAR	36 books	60 books	84 books
10 YEARS	360 books	600 books	840 books

Vocabulary Issues

As Isabel Beck writes in [Bringing Words to Life](#): "Struggling readers do not read well enough to make wide reading an option. To acquire word knowledge from reading requires adequate decoding skills, the ability to recognize that a word is unknown, and the competency of being able to extract meaningful information about the word from the context. Readers cannot be engaging with the latter two if they are struggling with decoding."

Are there early clues to dyslexia?

Since reading is based on spoken language, clues can appear before a child starts school.

Children with dyslexia often have slightly delayed speech and don't recognize rhyming words.

A family history of dyslexia may also be present.

THE YALE CENTER FOR
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Kindergarten & First Grade

Difficulties

- Reading errors that show no connection to the sounds of the letters on the page—will say "puppy" instead of the written word "dog" on an illustrated page with a picture of a dog

- Does not understand that words come apart

- Complains about how hard reading is; "disappears" when it is time to read

- A history of reading problems in parents or siblings

- Cannot sound out even simple words like *cat*, *map*, *nap*

- Does not associate letters with sounds, such as the letter b with the "b" sound

THE YALE CENTER FOR
DYSLEXIA &CREATIVITY

Second Grade through High School

Reading

- Very slow in acquiring reading skills. Reading is slow and awkward
- Trouble reading unfamiliar words, often making wild guesses because he cannot sound out the word
- Doesn't seem to have a strategy for reading new words
- Avoids reading out loud

Speaking

- Searches for a specific word and ends up using vague language, such as "stuff" or "thing," without naming the object

- Pauses, hesitates, and/or uses lots of "um's" when speaking

- Confuses words that sound alike, such as saying "tornado" for "volcano," substituting "lotion" for "ocean"

- Mispronunciation of long, unfamiliar or complicated words

- Seems to need extra time to respond to questions

School and Life

- Trouble remembering dates, names, telephone numbers, random lists

- Struggles to finish tests on time

- Extreme difficulty learning a foreign language

- Poor spelling

- Messy handwriting

- Low self-esteem that may not be immediately visible

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DYSLEXIA & CREATIVITY

Young Adults & Adults

Passed on from parents to children (30-60% chance if a parent struggled)

"I had trouble learning to read, so……"

School Age Dyslexia Screener – CLDQ-R

Please read each statement and decide how well it describes the child. Mark your answer by circling the appropriate number. Please do not leave any statement unmarked.

		Never/ not at all	Rarely/ a little	Sometimes	Frequently/ quite a bit	Always/ a great deal
1.	Has difficulty with spelling	1	2	3	4	5
2.	Has/had difficulty learning letter names	1	2	3	4	5
3.	Has/had difficulty learning phonics (sounding out words)	1	2	3	4	5
4.	Reads slowly	1	2	3	4	5
5.	Reads below grade level	1	2	3	4	5
6.	Requires extra help in school because of problems in reading and spelling	1	2	3	4	5

Scoring Instructions:

Add up the circled numbers and record that as the Total Score _____

The following cutoffs apply:

- Total Score <16 = Minimal Risk

- Total Score 16-21 = Moderate Risk

- Total Score >21 = Significant Risk

The International DYSLEXIA Association
Promoting literacy through research, education, and advocacy.

2019 publication by the International Dyslexia Association

EDUCATOR TRAINING INITIATIVES BRIEF
Structured Literacy™
An Introductory Guide

What does not work?

- Teaching guessing based on pictures

- Spelling based on rote memorization of unpatterned words

- Meaning focused writing without teaching the writing process

Without research-based instructional approaches and curricula, it appears that many teachers tend to overlook important components of reading and writing in instruction…

Including (the things that work)

phonemic awareness,

phonics,

vocabulary,

spelling,

and writing processes

such as planning and revision

Orton-Gillingham is based on the
Three Pathways for Learning

- Auditory

- Visual

- Tactile-Kinesthetic
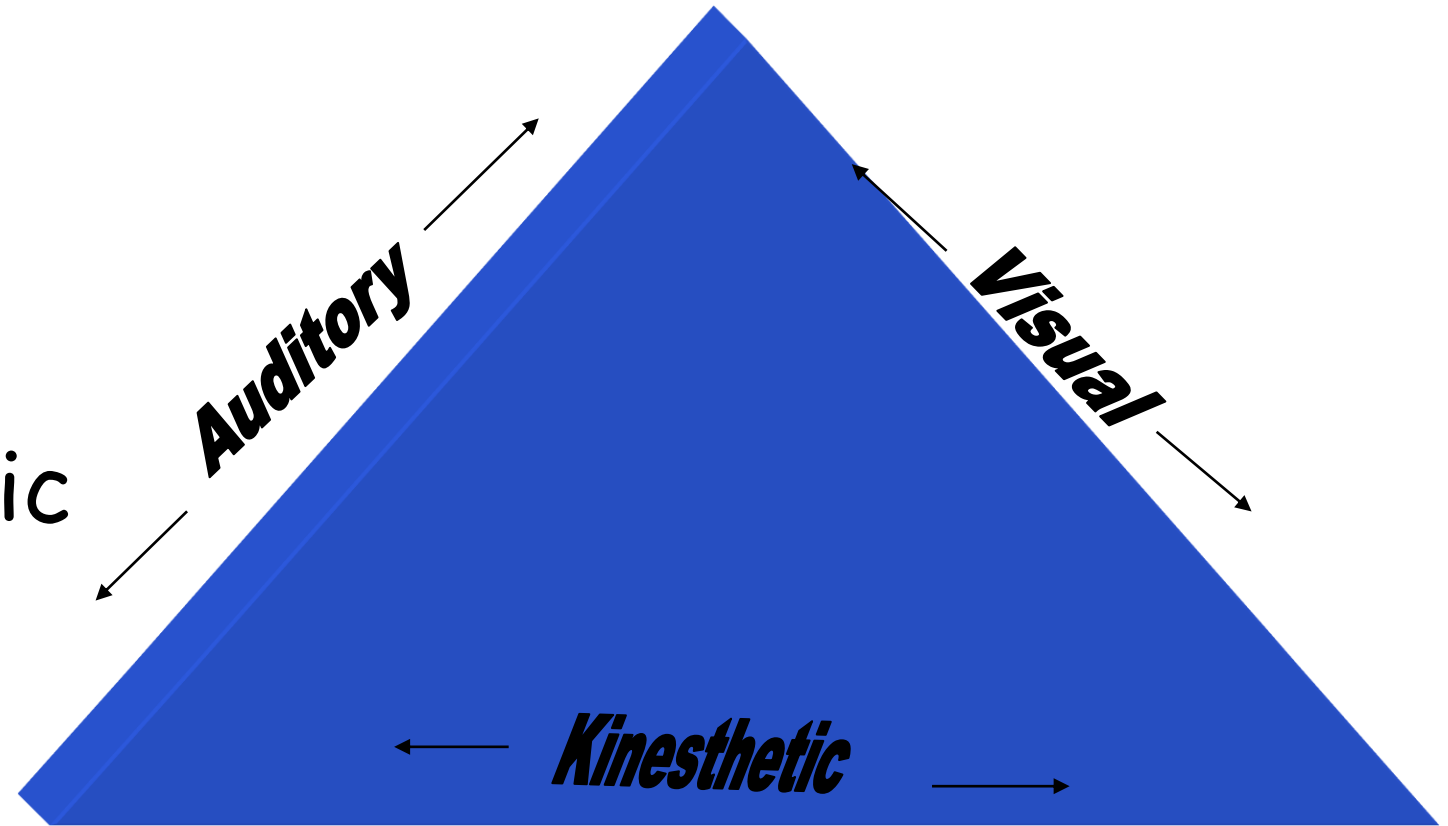
Auditory

Visual

Kinesthetic

Phonological Processing

Phonological Awareness

Phonemic Awareness

Phonics

Language and Reading Skills
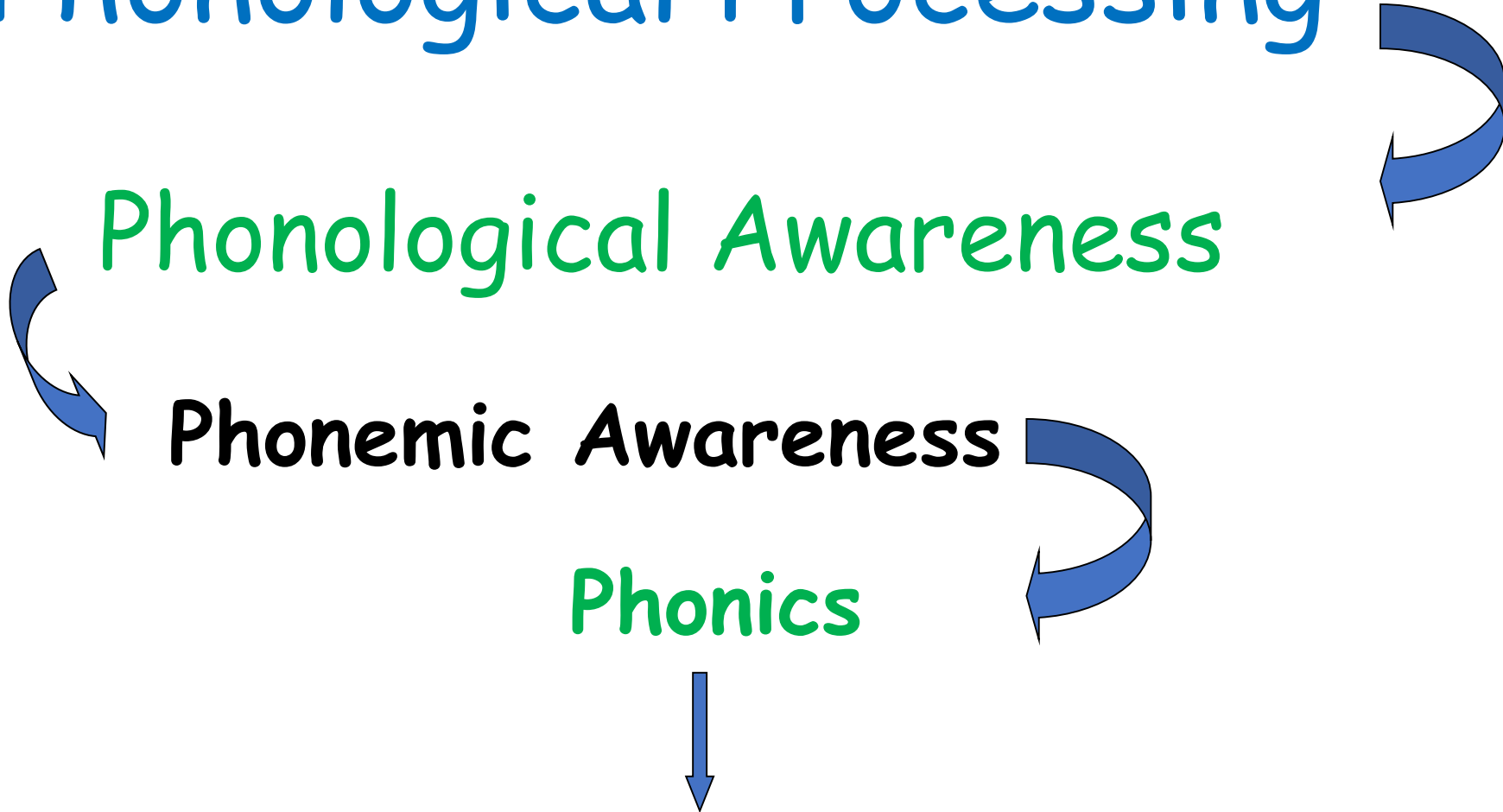
Phonological Processing

Understands Spoken Language

- Processes Information

- Expresses Information

Different Emphasis Needed

1. Language Deficits
   Poor vocabulary
   Poor oral comprehension
2. Dyslexic
   Struggling to decode
   Leads to poor fluency
3. Reciprocal affects

Phonological Processing

Phonological Awareness

Counting Words
Syllable Awareness and Manipulation
Rhyming

Word Awareness

Can they show the number of words in a sentence?
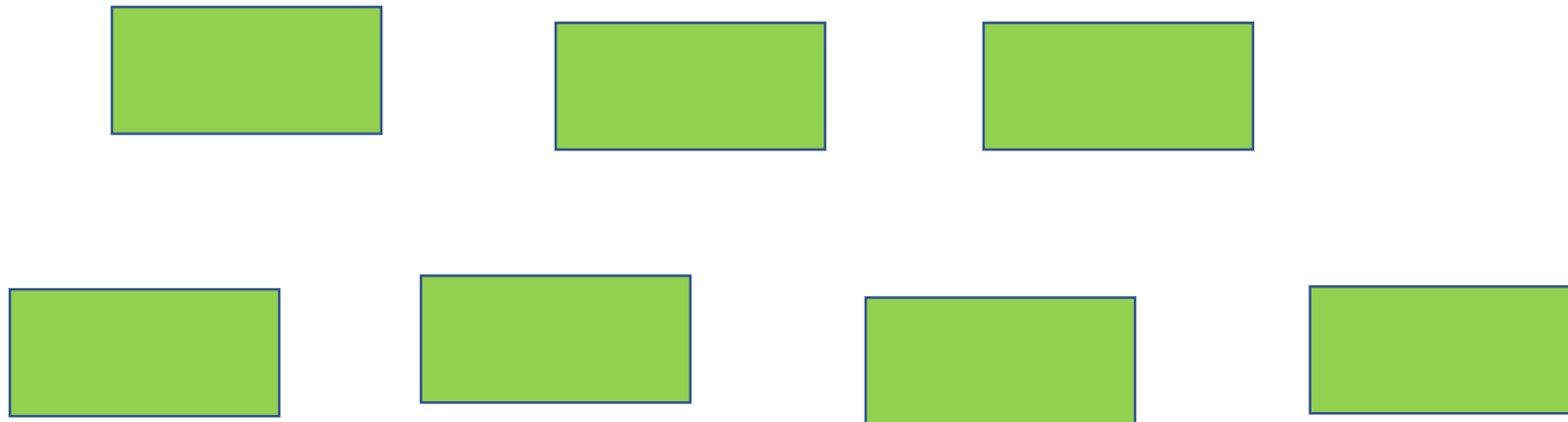
Syllable Skill #1

Does she know the differences between a word and a syllable?
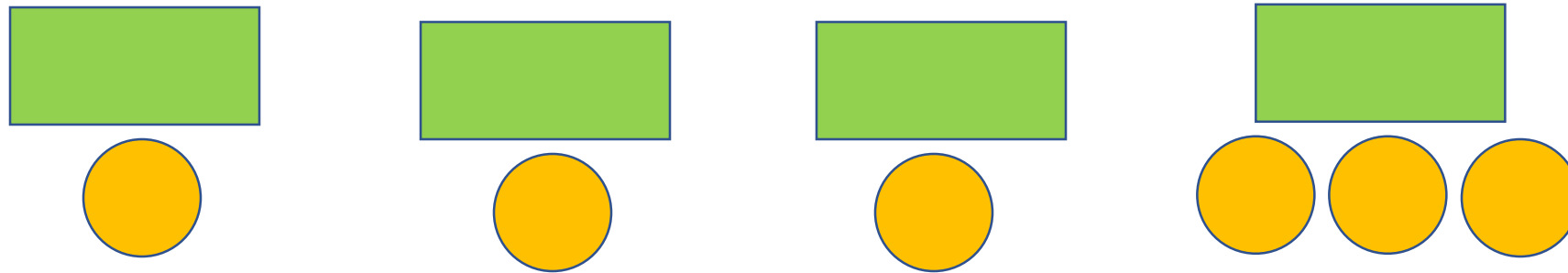
Can she show the correct number of syllables in a word?

Syllable Skill(s) #2

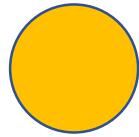**Can he blend syllables separated by varying time intervals?**
Can he "hear" the word?
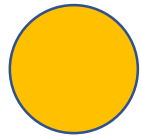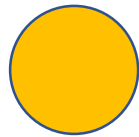
cow   boy   ⟶   "cowboy"
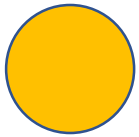
de   liv   er   ⟶   "deliver"
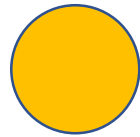
frus   tra   tion   al   ⟶   "frustrational"

Syllable Skill(s) #3

Can the student delete a specified syllable off a word?
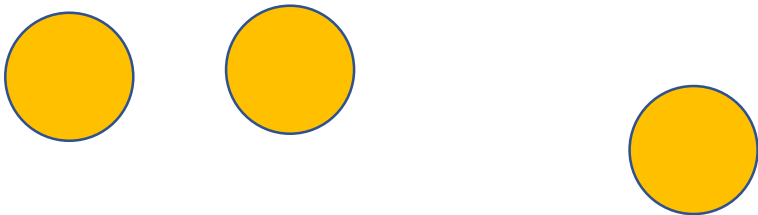
Cowboy without boy?

Compound words are easiest.

Reptile without rep?

Still a two-syllable word, but not compounded.

Yesterday without day?

Expected by end of third grade.

Rhyming Skill(s) #1

Discrimination of rhyming words

Auditory Memory is a factor for these tasks.

Do these words rhyme? Y or N?   cat/hat   big/bad

Which word rhymes with cat?   hat   kid

Which word doesn't rhyme in a set of three words? cat   kid   hat

Rhyming Skill(s) #2

Production of rhyming words

Tell me a word that rhymes with cat, but starts with /b/.

Finish this sentence with a rhyming word.
        "I certainly knew,….. there were monkeys at the _____".

Tell me three words that rhymes with top (real or nonsense).

Resource for screening and remediation

Phonological Processing

Phonological Awareness

Phonemic Awareness

Phonemic Awareness Skills

Being able to isolate the sounds within a word *with and without printed text*

Hearing, counting, repeating all the phonemes

Blending, segmenting, and substituting specific sounds in words

Recognizing letters are different from sounds

Sensing a pattern of how sounds can be represented by letters

Phonemic Awareness

Knowing the difference between a word

intruder

the syllables

and identifying the sounds

Numerous Phonemic Awareness Skills

- **Identification of Phonemes**
- **Blending Phonemes**
- **Segmentation of Phonemes**
- **Deletion of Phonemes**
- **Addition of Phonemes**
- **Manipulation of Phonemes**

- **Identification of Phonemes**
  - Blending Phonemes
  - Segmentation of Phonemes
  - Deletion of Phonemes
  - Addition of Phonemes
  - Manipulation of Phonemes

Phonemic Awareness
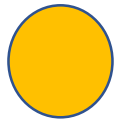## Identification of Phonemes

Isolating the individual sounds

m a n

★ ★ ★

Phonemic Awareness
Identification of Phonemes

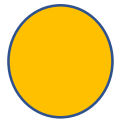Isolating the first sound

m a n

/m/ (not the letter name)

Phonemic Awareness
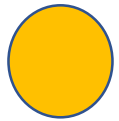## Identification of Phonemes

Isolating the middle sounds

m a n

/ă/ (not the letter name)

Phonemic Awareness
Identification of Phonemes

Isolating the end sound

m a n

★ ★
★

/n/ (not the letter name)

This skill affects spelling

- Eventually a student will need to hear each individual sound in a syllable.

- This is true of a one syllable word or a three-syllable word.

Reading is affected by the blending of individual sounds in a syllable.

Eventually a student will need to hear each individual sound in a syllable and "blend" them into a word.

Speed is a factor.

Numerous Phonemic Awareness Skills

- Identification of Phonemes
- Blending Phonemes
- Segmentation of Phonemes
- Deletion of Phonemes
- Addition of Phonemes
- Manipulation of Phonemes

Phonemic Awareness
Blending Phonemes

m a n

★ ★ ★

The word is easier to "hear"
with less time between sounds.

Phonemic Awareness
Blending Phonemes

m   a   n

★   ★   ★

Practice with ½ second to 2 second pause.

Phonemic Awareness
Blending Phonemes

Move on to longer words

j e s t er

★ ★ ★ ★ ★

Practice with ½ second to 2 second pause.
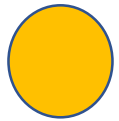
Numerous Phonemic Awareness Skills

- Identification of Phonemes
- Blending Phonemes
- # Segmentation of Phonemes
- Deletion of Phonemes
- Addition of Phonemes
- Manipulation of Phonemes

Phonemic Awareness
Segmentation of Phonemes

Related to spelling

b i g

★ ★ ★

Isolating each individual sound is vital.

Phonemic Awareness
Segmentation of Phonemes

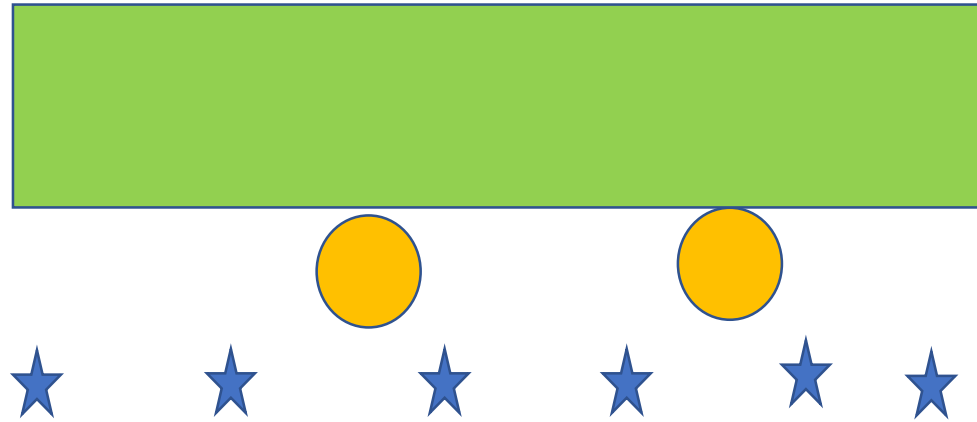Move on to longer multisyllabic words as the number of syllables is also a skill needed.
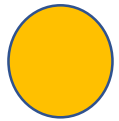
n a p k i n

Phonemic Awareness
All done without letters

Phonemic Awareness
Segmentation of Phonemes

Related to spelling

m u s t

★ ★ ★ ★

Problems often seen with consonant blends
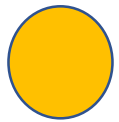
Numerous Phonemic Awareness Skills

- Identification of Phonemes
- Blending Phonemes
- Segmentation of Phonemes
- Deletion of Phonemes
- Addition of Phonemes
- Manipulation of Phonemes

Phonemic Awareness
Deletion of Phonemes

Related to spelling

c a t

★ ★ ★ without initial /k/
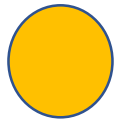
a t

Phonemic Awareness
Deletion of Phonemes

Related to spelling

s oa p

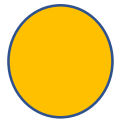★ ★ ★   without final /p/

so

Phonemic Awareness
Deletion of Phonemes

Related to spelling

c l i p

★ ★ ★ ★ without initial/k/
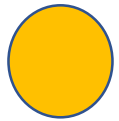
lip

Phonemic Awareness
Deletion of Phonemes

Related to spelling

f or k

★ ★ ★ ★ without final /k/

for

Phonemic Awareness Skills

- Identification of Phonemes
- Blending Phonemes
- Segmentation of Phonemes
- Deletion of Phonemes
- Addition of Phonemes
- Manipulation of Phonemes

Phonemic Awareness
Addition of Phonemes

Related to spelling
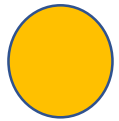
i t

★ ★

add initial /f/

fit

Phonemic Awareness
Addition of Phonemes

Related to spelling

t ie

⭐ ⭐

add final /m/

time

Phonemic Awareness
Addition of Phonemes

Related to spelling

t a ke

★ ★ ★

★ add initial /s/

steak

Phonemic Awareness
Addition of Phonemes

Related to spelling

m i ss

★ ★ ★

★ add final /t/

mist
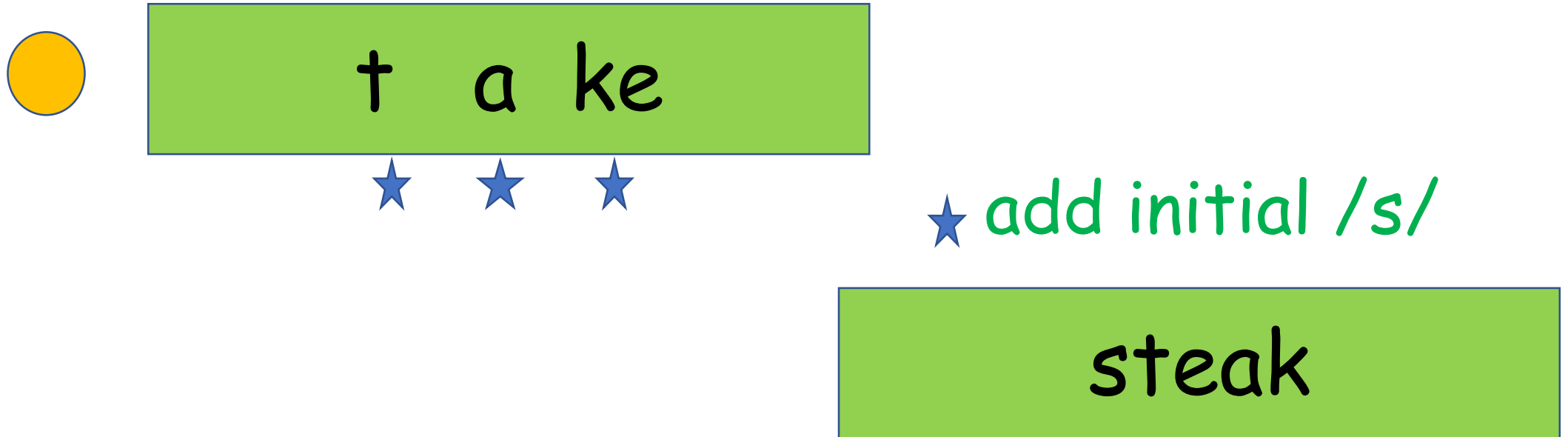
Again, problems often seen with consonant blends

Numerous Phonemic Awareness Skills

- Identification of Phonemes
- Blending Phonemes
- Segmentation of Phonemes
- Deletion of Phonemes
- Addition of Phonemes
- Manipulation of Phonemes

Phonemic Awareness
Manipulation of Phonemes
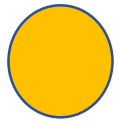
b a t

★ ★ ★

Change initial /b/ to /h/

hat

Phonemic Awareness
Manipulation of Phonemes
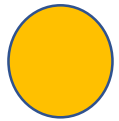
g oa t

★ ★ ★

Change middle /ō/ to /ĕ/

get

Phonemic Awareness
Manipulation of Phonemes
final sounds seems to have auditory memory component

l oa d

★ ★ ★

Change the /d/ at the end to /n/

loan

Phonemic Awareness
Manipulation of Phonemes

Tasks with nonsense words remove the memorization compensation skill so many of our older students rely on for spelling.
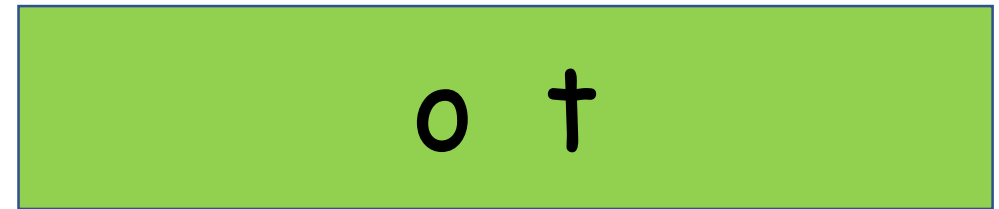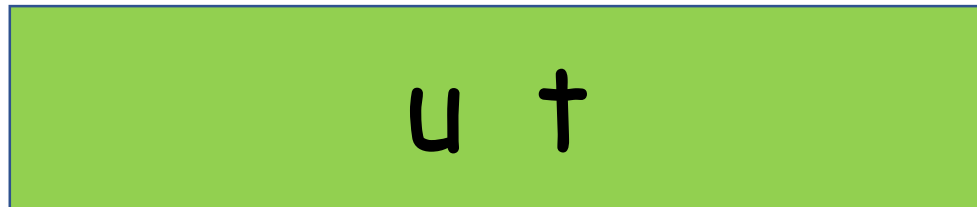
o t

u t

★ ★

change /ŭ/ to /ŏ/

79

Phonological Processing

Phonological Awareness

Phonemic Awareness

Phonics

Language and Reading Skills
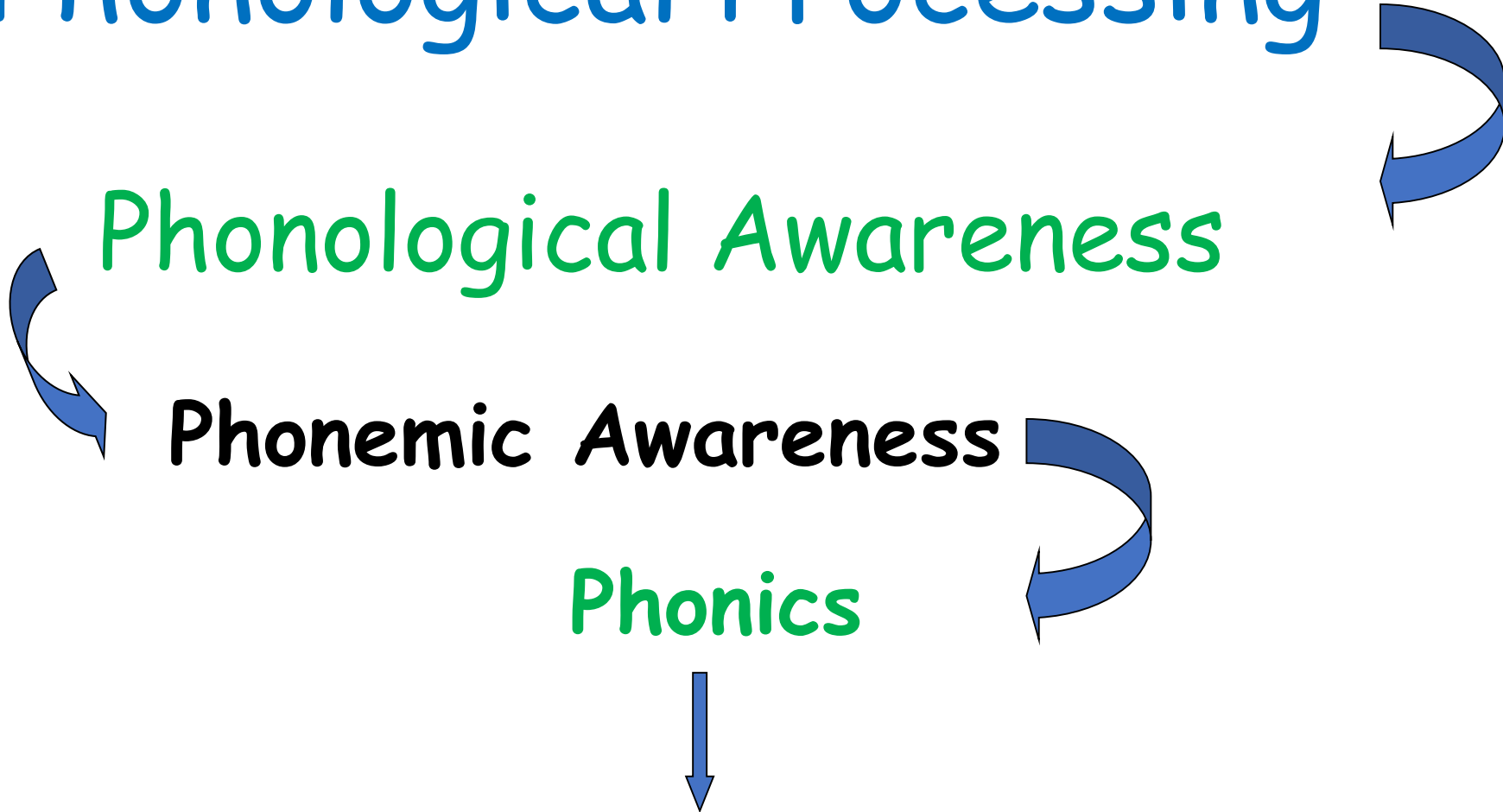
Phonemic Awareness

Phonics

Where does phonemic awareness end and phonics begin?

- They are highly intertwined.

- Students need to hear the sounds.

- Students need to know how to spell the sounds.

- Students need to understand the options for spelling of the sounds.

Quiz for /k/

List all 5 ways to spell /k/:   ____ ____ ____ ____ ____

Initial /k/:   Use k before ____, ____, and ____.

Use c before everything else.

Final /k/ rule: Never use c at the end of a one syllable word to spell /k/.

Use _____ or -ck at the end of 1 syllable words.

At the end of longer words, use _____.

English is actually 80% predictable

- Let's look at the sound /ō/ in the 20,000 most often used words according to a study by Hanna and colleagues:

  o was used 140 times

  oe was used 13 times

  ow was used 74 times

  oa is the most frequent use when followed by /t/ and /d/

  o-e is the most common way to spell in stressed syllables

LONG VOWEL CHOICES

Sound	End of syllable	In the middle		End of word	Low Frequency Choices			
		1st choice	2nd choice					
ā	a	a-e	ai	ay	ea	eigh	ei	ey
ē	e	ee	ea	y	e-e	ie	ei	ey
ī	i	i-e	igh	y	y-e	ie		
ō	o	o-e	oa	ow	ou	oe		
ū	u	u-e		ew	eu	ue		
oo	u	oo	u-e	ew	eu	ue	ui	ou

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Structured and Sequential

First Level of Word Attack

- Letter Sounds
- Six kinds of syllables
- Syllable division rules
- High frequency sight words
- FSZL spelling rule (f,s,z,l)
- Longer spelling after short vowel
  (k/ck, ch/tch, ge/dge)

Second Level of Word Attack

Base words = stand alone words

(man)

Roots = the original form from which a

recorded word is derived

(**port**=carry)

Affixes= prefix and/or suffix

(**trans** · **port** · **ing**)

Table of Contents for Book 4

Table of Contents for ETC Book 10

Morphology

Morpheme: *the smallest unit of meaning in the language.*

Morphology: *study of how morphemes are combined to form words.*

trans • port • ing

Latin Influence

Latin

No "k"; schwa sounds; ligatured "tu" saying /ch/ and "du" saying /j/;
"ti, si, ci, xi" saying /sh/. Doubling of consonants at the beginning of words;
connectives "i, u, ul, and ol"; roots ending in -ct and -pt. Latin prefixes/roots/suffixes.
Chameleon prefixes: e.g., con, com, col, co, col.

<u>por</u>t = to carry   <u>tract</u> = to pull   <u>struct</u> = to build
<u>flect</u>, <u>flex</u> = to bend   <u>mit</u>, <u>miss</u> = to send   <u>dic</u>, <u>dict</u> = to say

Chart for teaching:

accelerate   alliance

addition   ac before c al before l   announce

ad before d   an before n

afflict   af before f   ad   ap before p   apply

ag before g   at before t

aggressive   ar before r   as before s   attract

ad = to, toward, at

arrange   assert

advance

Assimilated prefixes like
ad- to, toward

Greek Influence

Greek

"ch" saying /k/; "ph" saying /f/; silent p; "mn" words; "y" in the body of word; "th" in long words.
-cian; connective "o" to combine 2 roots.
Greek prefixes/roots/suffixes.
Greek combining forms: "phono-graph"
Words relating to theater, science, Olympic games and Greek history/myths.

French influence

French:
"que" saying /k/;
"ch" saying /sh/

Spanish and Italian influence

Other:
Italian, Spanish

Layers of the English Language
Marcia Henry

LAYERS OF THE ENGLISH LANGUAGE

French:
"que" saying /k/;
"ch" saying /sh/

Other:
Italian, Spanish

Greek
"ch" saying /k/; "ph" saying /f/; silent p; "mn"
words; "y" in the body of word; "lh" in long words.
-cian; connective "o" to combine 2 roots.
Greek prefixes/roots/suffixes.
Greek combining forms: "phono-graph"
Words relating to theater, science, Olympic
games and Greek history/myths.

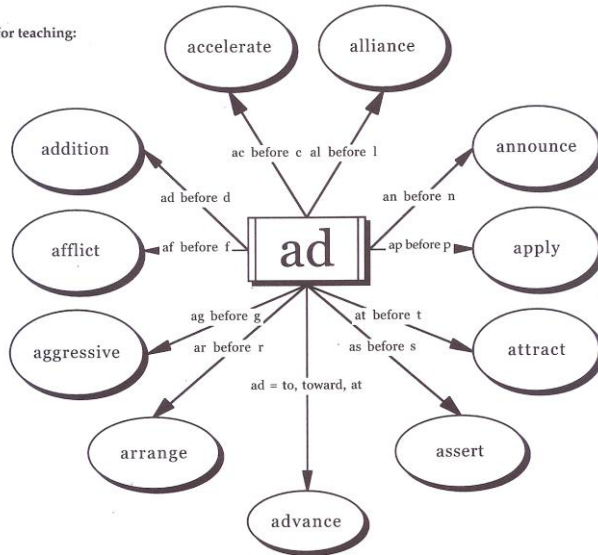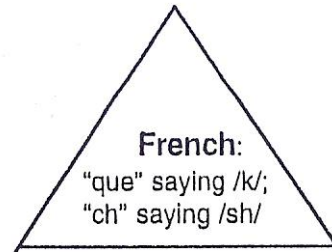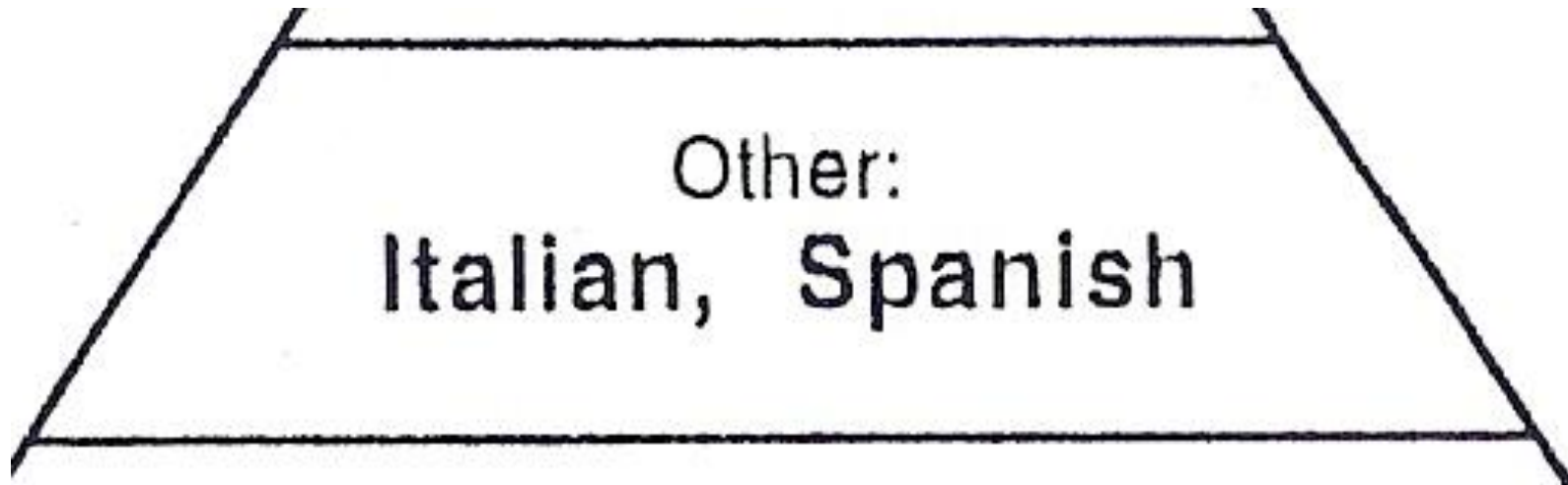**Latin**
No "k"; schwa sounds; ligatured "tu" saying /ch/ and "du" saying /j/;
"ti, si, ci, xi" saying /sh/. Doubling of consonants at the beginning of words;
connectives "i, u, ul, and ol"; roots ending in -ct and -pt. Latin prefixes/roots/suffixes.
Chameleon prefixes: e.g., con, com, col, co, col.

port = to carry   tract = to pull   struct = to build
flect, flex = to bend   mit, miss = to send   dic, dict = to say

Anglo-Saxon
"ck", "tch", "dge", "ch" saying /ch/; "th" in short words;
"wr" and "wh" at the beginning of words; "gh" and "ow" words; "k" in short words.
Anglo-Saxon prefixes/suffixes.
Compound words.
Phonetically irregular words - "was", "though".
Words of everyday life and commonly used verbs.

Key Elements of Decoding Instruction

- **Phonological Awareness**, especially phonemic awareness
- **Instant letter-recognition**
- **Sound-symbol correspondence**
- **Syllable types**
- **Morphemic Awareness**
- **Syllable Division Patterns**
- Procedure for **Irregular Words**
- **Orthographic Pattern Knowledge**
- **Time** to practice for Accuracy and Fluency

National Reading Panel Conclusions

- **Phonemic Awareness** - Explicit instruction in phonemic awareness improves a child's reading and spelling skills

- **Phonics** -Instruction in systematic phonics produces significant benefits for students in K-6th grade, and for children having difficulty learning to read

- **Fluency** -Guided oral reading is more beneficial than reading silently without feedback

- **Vocabulary** – taught both directly and indirectly, using several methods. Give information about words' definitions and see examples of use in text

- **Comprehension** -Reading comprehension improves when children are taught strategies such as determining the main idea, sequencing events, and drawing inferences
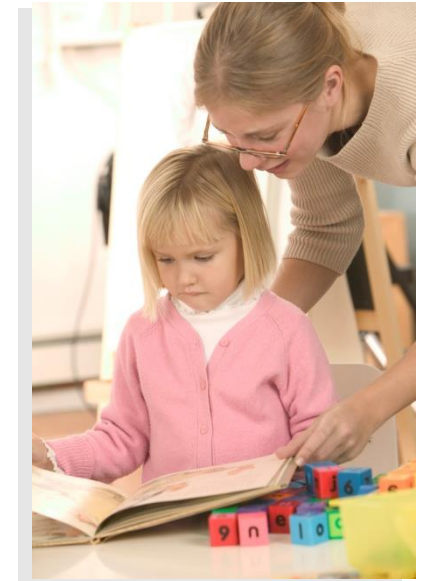
More Statistics

- **20% of children would learn to read no matter what we did to them.**

- **20% need carefully sequenced, multisensory methods and materials in order to "*crack the code*",and bring sound/symbol correspondence and blending to an automatic level.**

- **That leaves roughly 60%.**
  Of these, a high percentage are neither dyslexic nor learning disabled, but need direct instruction in order to master reading.

Everyone can learn with Structured Literacy

So…..

What did you learn?

Dyslexia is……

- A specific learning disability that is neurologic in origin.

- Characterized by difficulties with
  - decoding (symbol-sound) and encoding (sound-symbol)
  - accurate and/or fluent word recognition

- Often accompanied by handwriting issues (dysgraphia)

- Often accompanied by reading comprehension issues

Dyslexia is NOT ......

- Reading letters and words backwards

- A lack of intelligence or effort

- Strictly and attentional issue like ADHD
  - This often co-exists with dyslexia, but it is not the cause.

Can students with dyslexia perform well in school?

Yes! Many dyslexic students perform very well in school. These students are usually highly motivated and work extremely hard.

In many cases they have been **identified early** and have received **evidence-based interventions** and **accommodations,** such as extra time on tests, which allows them to demonstrate their knowledge.

THE YALE CENTER FOR
DYSLEXIA & CREATIVITY

Questions?

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