Teaching
Phonological Awareness

▪Background: Research and Terminology

Discussion Topics

- Think of some ways you could incorporate what you learned about the levels of language – phonology, morphology, semantics, syntax – into your classroom.

- What do you feel are the skills that should be included in an assessment of comprehension. What would be the most logical order for assessing comprehension and why?

- What is one thing that surprised you about the History of the English Language?

PHONOLOGICAL AWARENESS

Phonological Awareness is the sensitivity or awareness of word structure in one's own language. This includes an awareness at the word, syllable and sound level.

Why the Big Deal?

Phonemic awareness measured at the beginning of kindergarten is one of the two best predictors of how well children will learn to read during their first two years of school, along with letter knowledge (Ehri & Nunes 2002)

The Research Says…

"Children who fall behind in first grade reading have a one in eight chance of ever catching up to grade level."

(Juel, 1994)

"Phoneme awareness is the single best predictor of reading success between kindergarten and second grade."

(Adams, Stanovich, 1995)

"Phonemic awareness is more highly related to learning to read than are tests of general intelligence, reading readiness, and listening comprehension."

(Stanovich, 1993)

Why is Phonemic Awareness Important?

Phonemic awareness instruction helps children learn to read

Phonemic awareness instruction helps children learn to spell

3 Ways Phonemic Awareness is important in acquiring accurate word reading skills:

- PA helps children understand the alphabetic principle

- PA helps children notice the regular ways that letters represent sounds in words

- PA makes it possible to generate possibilities for words in context that are only partially sounded out

Phonemic Awareness

- Research now shows very clearly that at least 20% of school children will experience difficulty learning to read without explicit instruction to stimulate phonological awareness.

- Because phonemes are represented by letters in print, learning to read requires that children become consciously aware of phonemes as individual segments in words.
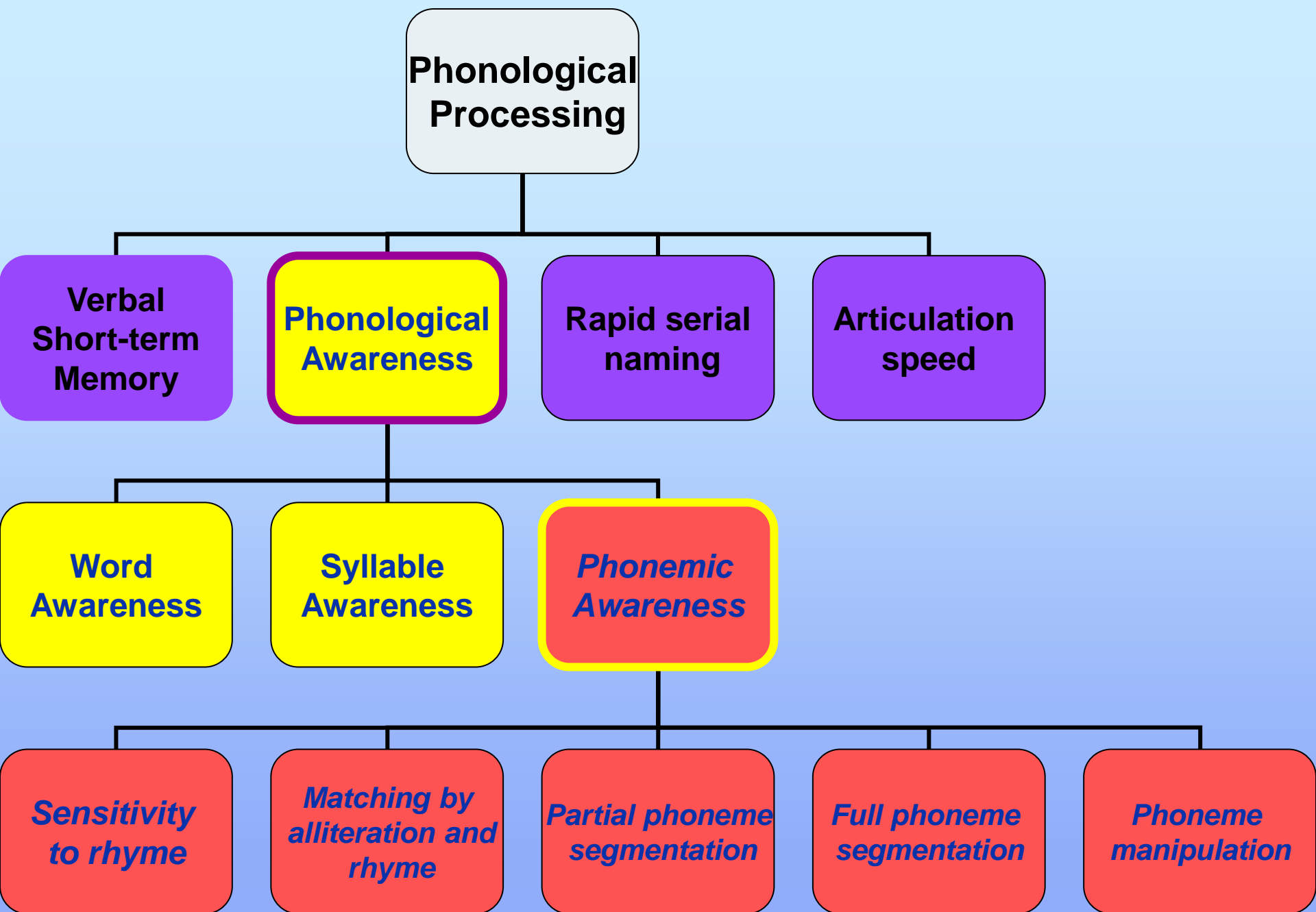
How Much Instructional Time?

About 7 minutes a day

"No more than 20 hours over the school year."

Stanovich, 1993

What is the difference?

- Phonological awareness: the ability to attend to the sounds of speech in language.   Phonological awareness is a more inclusive term than phonemic awareness...include[s] noticing similar sounds in words, appreciating rhymes, and counting syllables.

- Phonemic awareness: the conscious awareness that words are composed of separate sounds and the ability to identify and manipulate those sounds.

Moats & Hall, 1999

Terminology

- <u>Phoneme segmentation</u>: the ability to hear a spoken word and pronounce its individual phonemes: "hill" to /h/ /i/ /l/. This ability is especially important for spelling.

- <u>Phoneme blending</u>: the ability to hear a word broken into phonemes and combine the phonemes into the word: /b/ /u/ /g/ to "bug." This ability is especially important for reading.

Moats & Hall, 1999

- <u>Phoneme manipulation</u>; the ability to add, delete or move phonemes in a word and pronounce the new word that results.

- <u>Phonics</u>: Instruction in how the sounds of speech are represented by letters and spellings.

Moats & Hall, 1999

- Onset: the consonant sound(s) that precede the vowel sound in a syllable. /c/ is the onset of cat. /sc/ is the onset of scat.

- Rime: the vowel sound and what follows it in a syllable. /at/ is the rime in cat. /ast/ is the rime in blast.

- NOTE: The ability to break a word into onset and rime may precede the ability to segment into phonemes. Sounding out onset and rimes may help students at later stages because it means less units to hold in memory when decoding a word.

Moats & Hall, 1999

Understanding Phonological Awareness

Phonological Awareness – the ability to attend to the sounds of speech in language.

1. How does it develop?

2. Why do we need it and why is it difficult for some children?

Do Young Children Use Phonemes In Oral Language?

- Yes, they can certainly distinguish <u>cat</u> from <u>hat</u> and <u>hat</u> from <u>hot</u>.

- But they are not <u>aware</u> of the sounds of the words.

What sound does <u>car</u> start with?   ***V-r-r-o-o-o-m***

What does <u>rabbit</u> end with?   *a cotton tail*

Does Phonological Awareness Develop Naturally?

- No. In cultures without a written language, even adults are not aware of phonemes.

- Speech is a continuous stream and breaking words into phonemes is an artificial task.

Think Sound, Not Spelling

A PHONEME is the smallest unit of sound.

A phoneme is not a letter

/b/   /a/   /t/

3 phonemes

When Does Phonological Awareness Develop?

- Phonological Awareness develops slowly from pre-school years through the years of early reading (grades 1-3).

- Phonological Awareness development has a reciprocal relationship with learning to read:
  - Early Phonological Awareness skills enable beginning reading.
  - Beginning reading contributes to Phonological Awareness development.

Felton & Lillie, 2001

How Does Phonological Awareness Develop?

- Tells whether 2 words rhyme
- Generates a rhyme for a simple word (or can easily be taught these tasks)

- Pronounces 1st phoneme of a word
- Blends two sound words **/m/ /e/ "me"**

- Segments 3 sound words: *top*
- Blends four phonemes: *snap*

- Segments 4 sound words: *mask*
- Blends 4 or 5 sounds: *blast*

Torgesen, 2000

A Developmental Sequence For Phonological Awareness

1. **SENTENCE SEGMENTATION:** Sentences can be broken up into individual words.

2. **RHYMING:** Rhyming words can be recognized and produced.

3. **SYLLABLE SEGMENTATION:** Words can be broken into syllables.

4. **ONSET AND RIME:** Words can be broken into onset and rime.

5. **PHONEME IDENTIFICATION:** Beginning, ending and medial sounds of words can be identified.

6. **PHONEME SEGMENTATION AND BLENDING:** Words can be segmented into individual sounds; sounds can be blended into words.

7. **PHONEME ANALYSIS:** Individual sounds within words can be analyzed and manipulated.

Felton & Lillie, 2001

What Exactly Do Children Need To Be Able To Do?

- Spelling
  - Children must be able to hear a word...

    bug

    and be able to segment that word into phonemes:

    /b/ /u/ /g/

- Reading
  - Children must be able to recall the phonemes in a word…

    /m/ /a/ /p/

    and be able to blend those phonemes into a word of the letters

    map

Why Is This "Unnatural Act" Required To Learn To Read?

Type Of Language	Example		Symbol Stands For	Number Of Symbols
Logographic	Chinese	我	word	1000's
Syllabic	Japanese	女	syllable	100's
Alphabetic	English	E	phoneme	26

How Does Phonological Awareness Help Us Read An Alphabetic Script?

- Phonological Awareness helps us figure out new words.
- Phonological Awareness helps us store words in memory as a connection between the phonological image (the sound of the word) and the visual/sequential set of letters (the spelling).
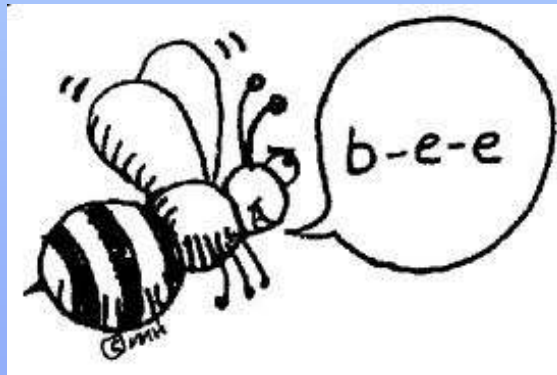
Is It Necessary That Children Develop Phonological Awareness? YES!

- Phonological Awareness is highly predictive of reading success.

- Training children in Phonological Awareness improves reading for years afterwards.

- Intensive work on Phonological Awareness along with phonics can help students with phonological based learning disabilities.

National Reading Panel On Phonemic Awareness

- Teaching manipulation of phonemes in words was highly effective at all grade levels.
- Phonemic awareness instruction:
  - improved PA, reading, and spelling
  - worked for all levels of ability
  - improved normal students' spelling

  (Disabled spellers may require longer, more intensive instruction.)

National Reading Panel, 2000

National Reading Panel On Phonemic Awareness

- PA instruction was most effective when:
    - students progress from oral PA activities (no letters) to activities using letters
    - taught as 1 or 2 types of manipulations, not many
    - taught in small groups

National Reading Panel, 2000

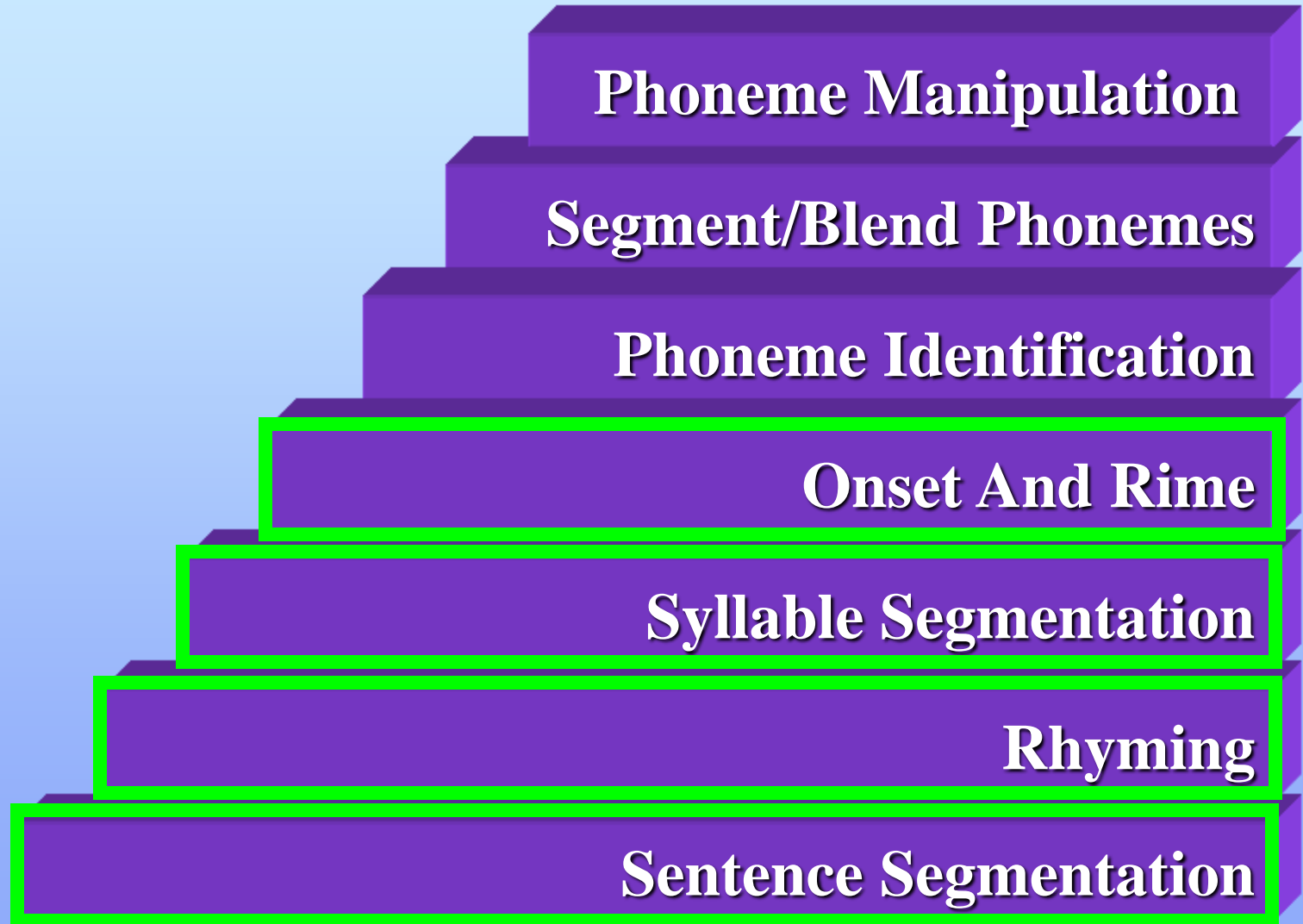# General Principles Of Phonological Awareness Instruction

- Provide explicit instruction.

- Model the skills.

- Begin with sounds only.

- Use manipulatives.

- Teach simple to complex.

- Pronounce sounds correctly.

- Provide guided practice.

- Teach the "feel" of sounds in the mouth.

Felton & Lillie, 2001

Levels Of Phonological Awareness: Instructional Activities

Phoneme Manipulation

Segment/Blend Phonemes

Phoneme Identification

Onset And Rime

Syllable Segmentation

Rhyming

Sentence Segmentation

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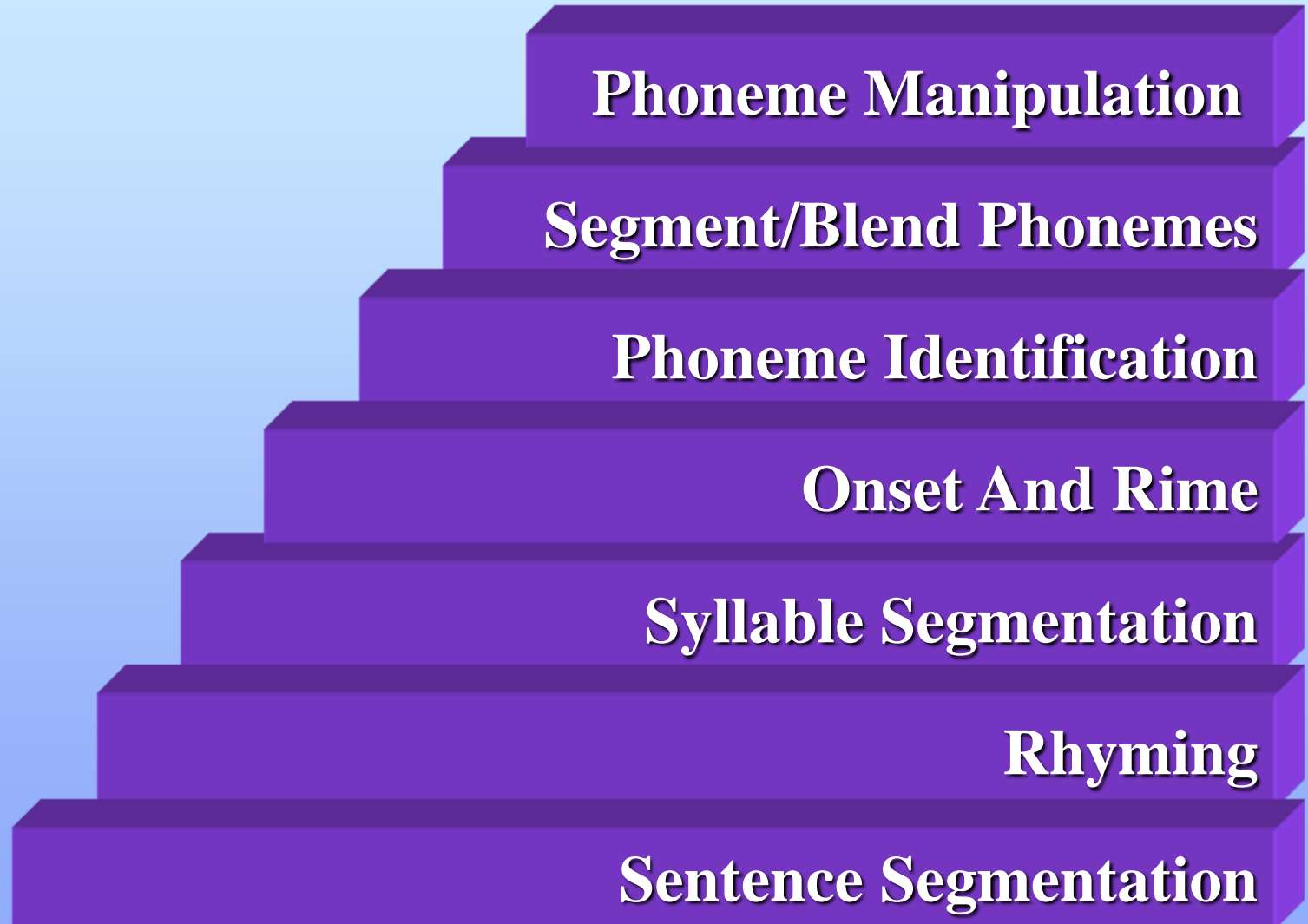
Sentence Segmentation

Sentence Segmentation: Using Blank Cards To Build Sentences

1. Teacher & students decide on sentence to build.

We made popcorn today.

2. Words are represented by blank cards.
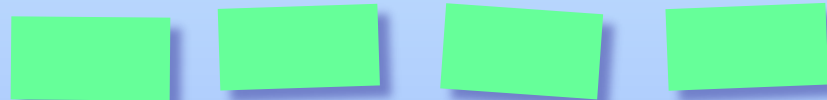
3. Capitalization of first letter in sentence is indicated with a special card.

4. Final punctuation is indicated with card.

adapted from Wilson,B., 2002. Fundations

Sentence Segmentation: Finger-Point Reading

- Teacher reads simple predictable book to students while pointing to words.

- Students point to words while rereading books to teacher or classmate.

Example of a simple, predictable text

The apple is red.

The stop sign is red.

Morris & Slavin, 2002

Sentences Segmentation: Cut-Up Sentence

- Student dictates a sentence.

- Teacher writes sentence on sentence strip.

- Student finger point reads sentence.

- Teacher cuts up sentence into words.

- Student reassembles sentence with support.

- Student rereads assembled sentence.

I can ride my bike .

(Morris, 1999)
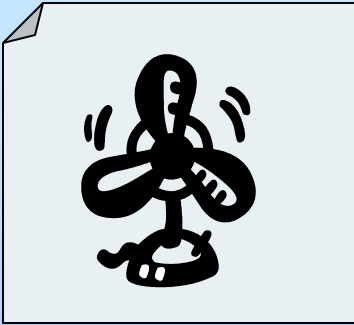
Sentence Segmentation: Notes For Older Readers

- Sentence segmentation rarely needed

- Possibly needed for older student functioning cognitively like a much younger child

Levels Of Phonological Awareness: Instructional Activities

Phoneme Manipulation

Segment/Blend Phonemes

Phoneme Identification
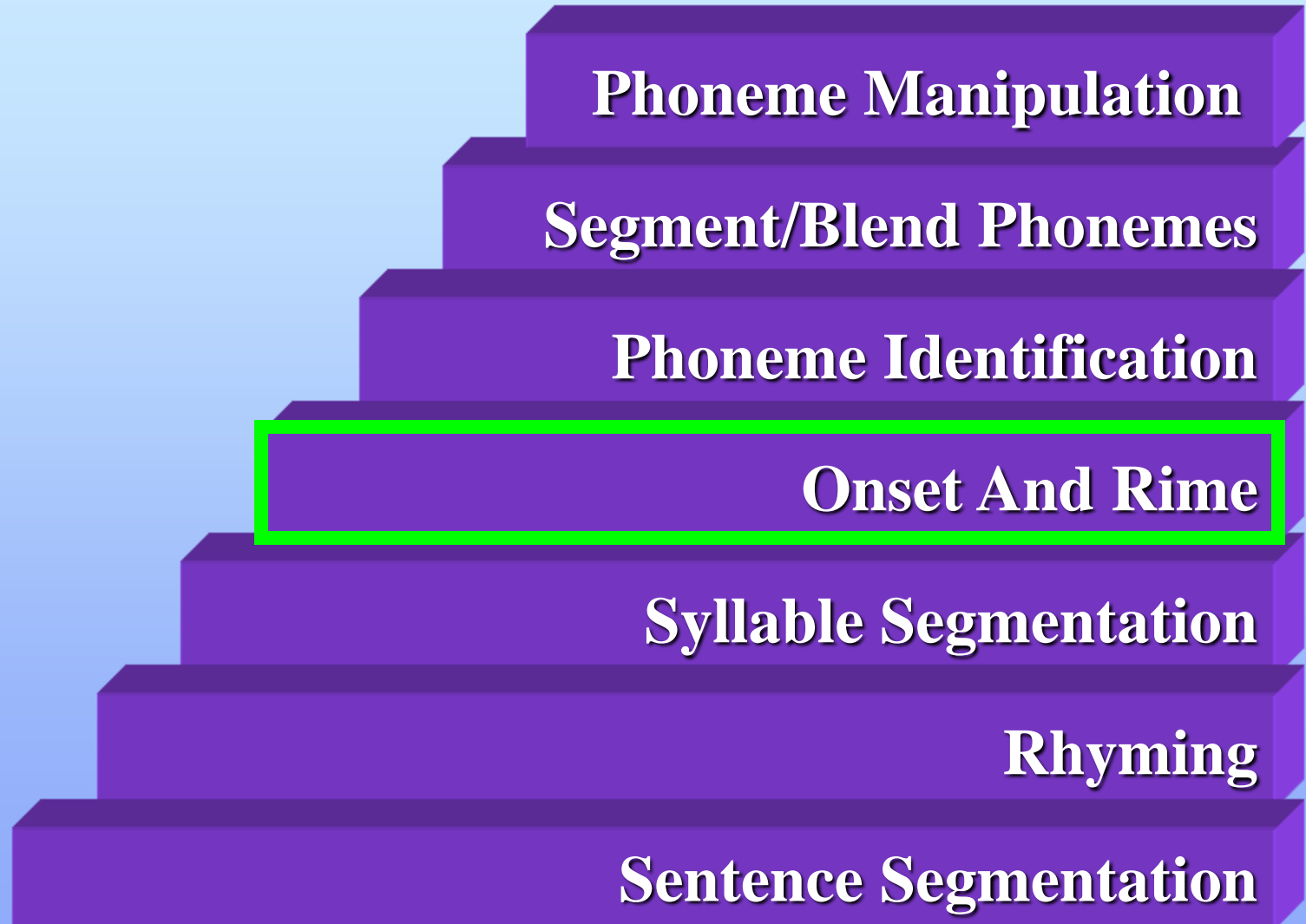
Onset And Rime

Syllable Segmentation

Rhyming

Sentence Segmentation
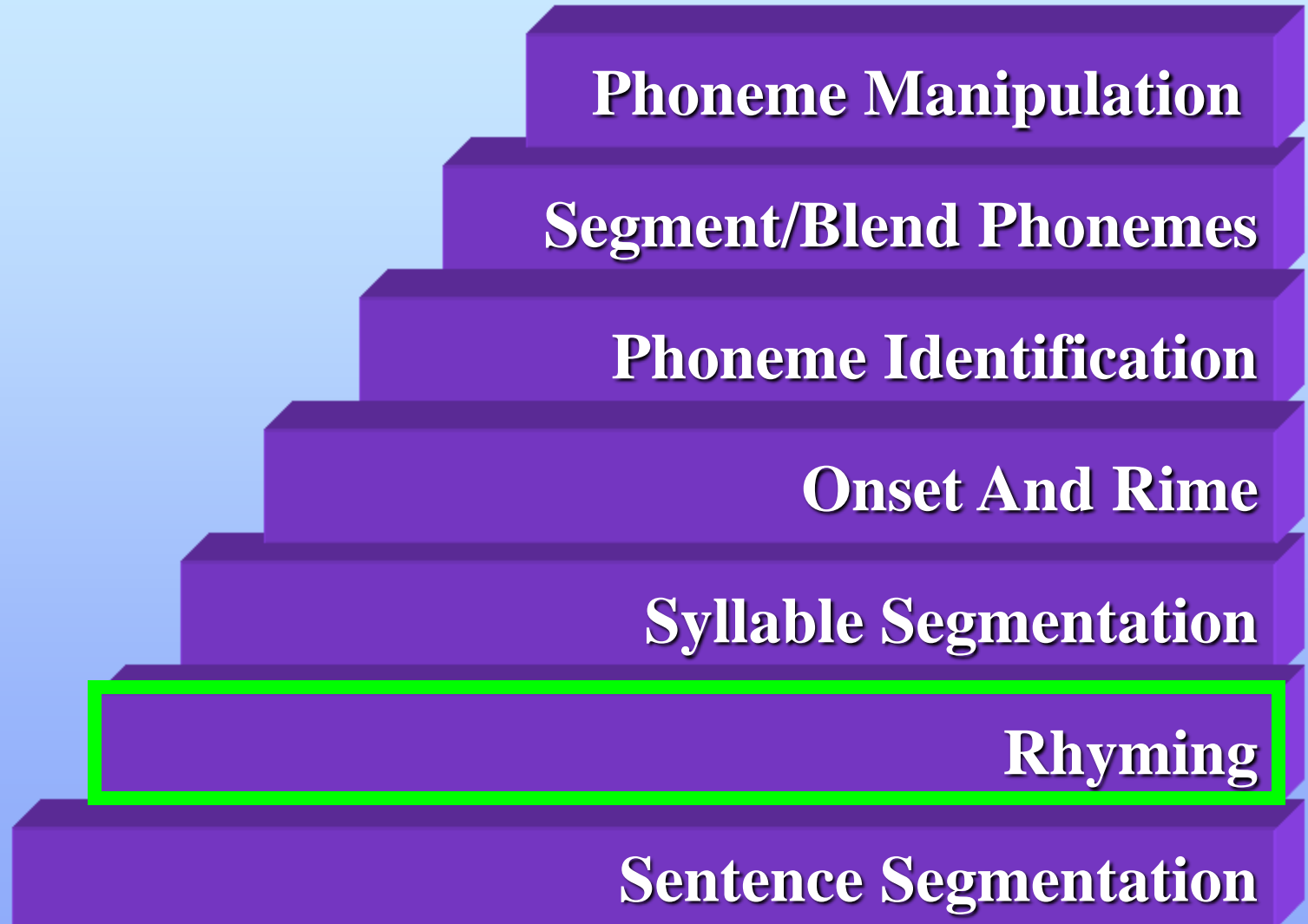
Rhyming:
Odd-One-Out With Picture Cards
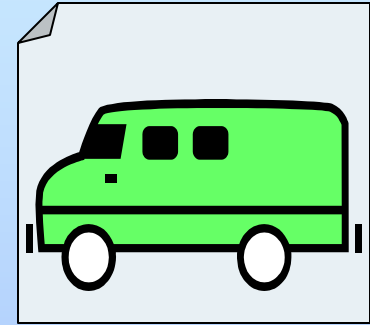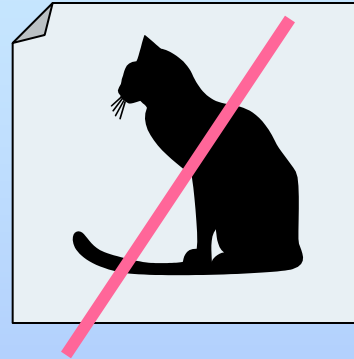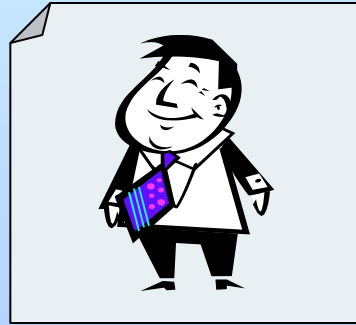
1. Name the pictures: "fan, man, cat, van."

2. Which one doesn't sound like the others?

3. Name the rhyming words again: "fan, man, van."

Rhyming:
Notes For Older Readers

- May continue to be difficult for older students even after mastering higher levels of PA

- Should not be the focus of much instructional time, if any

Levels Of Phonological Awareness: Instructional Activities

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Syllable Segmentation: Notes For Older Readers

- If syllable level skills are taught to older students, teach these basic oral segmentation skills:

  - Segmentation into correct number of syllables
  - Correct pronunciation of each syllable

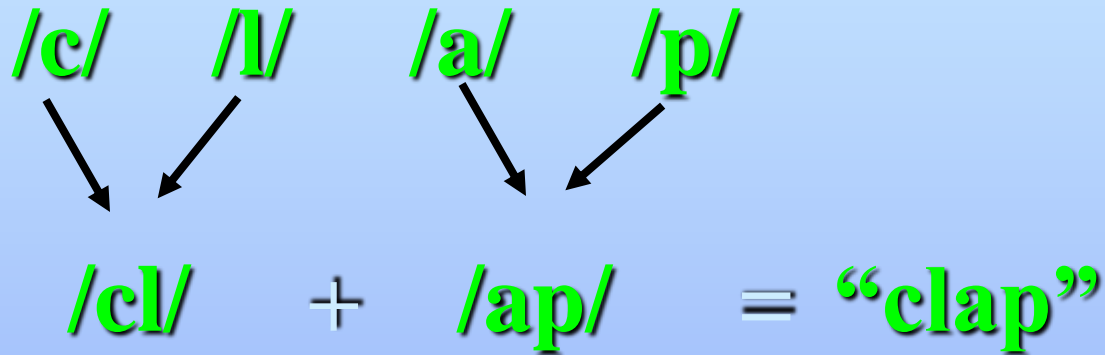# Levels Of Phonological Awareness: Instructional Activities

Phoneme Manipulation

Segment/Blend Phonemes

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Onset And Rime

Syllable Segmentation

Rhyming

Sentence Segmentation

Onset And Rime:
Notes For Older Readers

- Use at later point in instruction with older students, when:

  - Students have mastered segmentation of 3 sound words

  - Have mastered decoding of most 3 sound words

  - Students are ready to work with words of 4 and 5 sounds (consonant blends)
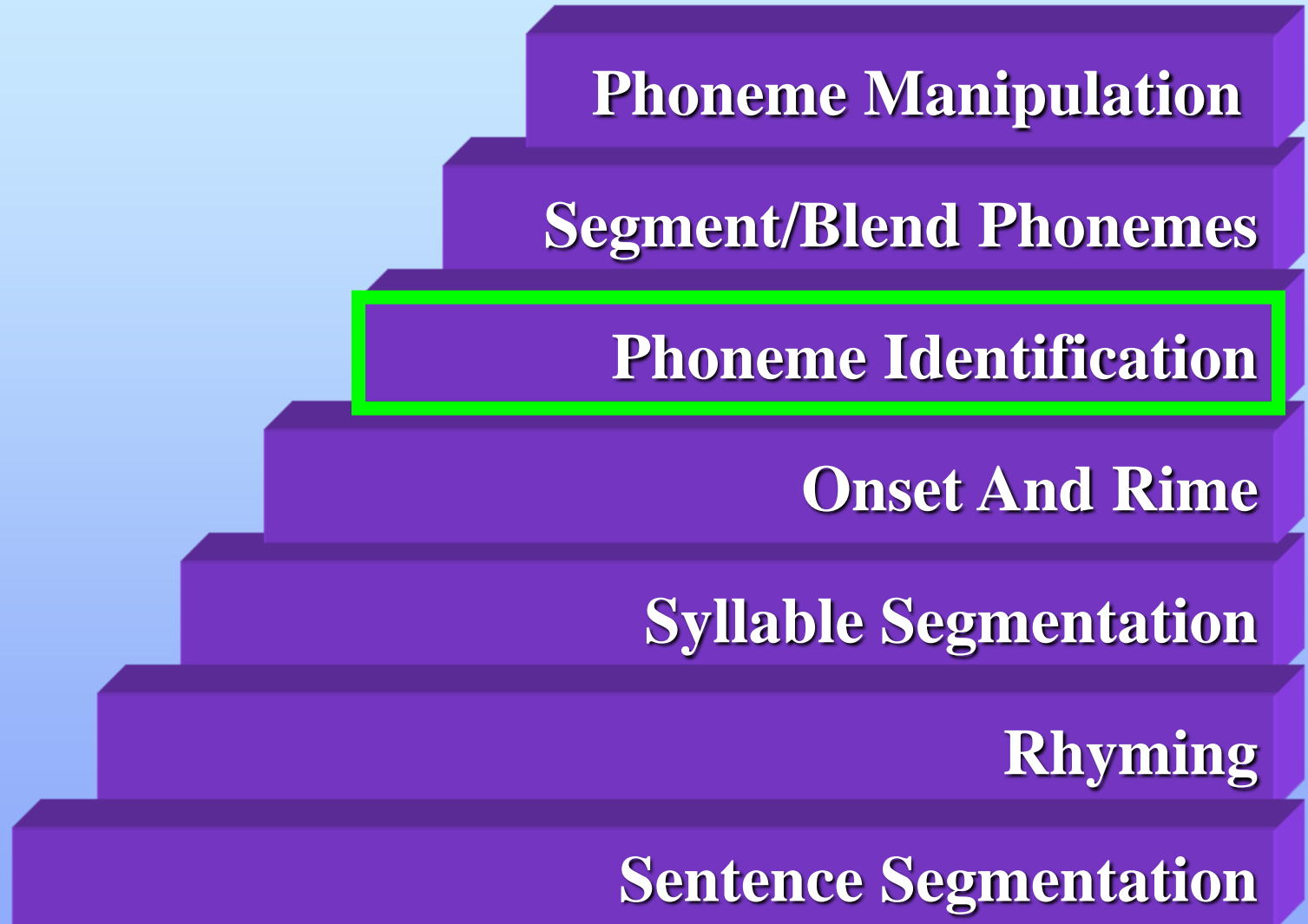
Onset And Rime
Notes For Older Readers

- At this stage, onset and rime help hold sounds in memory to blend 4 and 5 sounds.

$$/c/ \quad /l/ \quad /a/ \quad /p/$$

$$/cl/ \quad + \quad /ap/ \quad = \text{"clap"}$$

- Onset and rime supplements phoneme segmentation:
  - Does not replace phoneme segmentation
  - Helps with working memory
  - Calls attention to common spelling patterns in the rime

# Levels Of Phonological Awareness: Instructional Activities

Phoneme Manipulation

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Sentence Segmentation

Phoneme Identification: What's The Beginning Sound?

Aa Apple

- Examples:

1. Teacher: "Say these words: duck, dog, doll."

   Students: "duck…dog…doll."

2. Teacher: What's the beginning sound?

   Students: /d/.

- Similar activities can be done for words with the same ending sound or the same vowel sound.

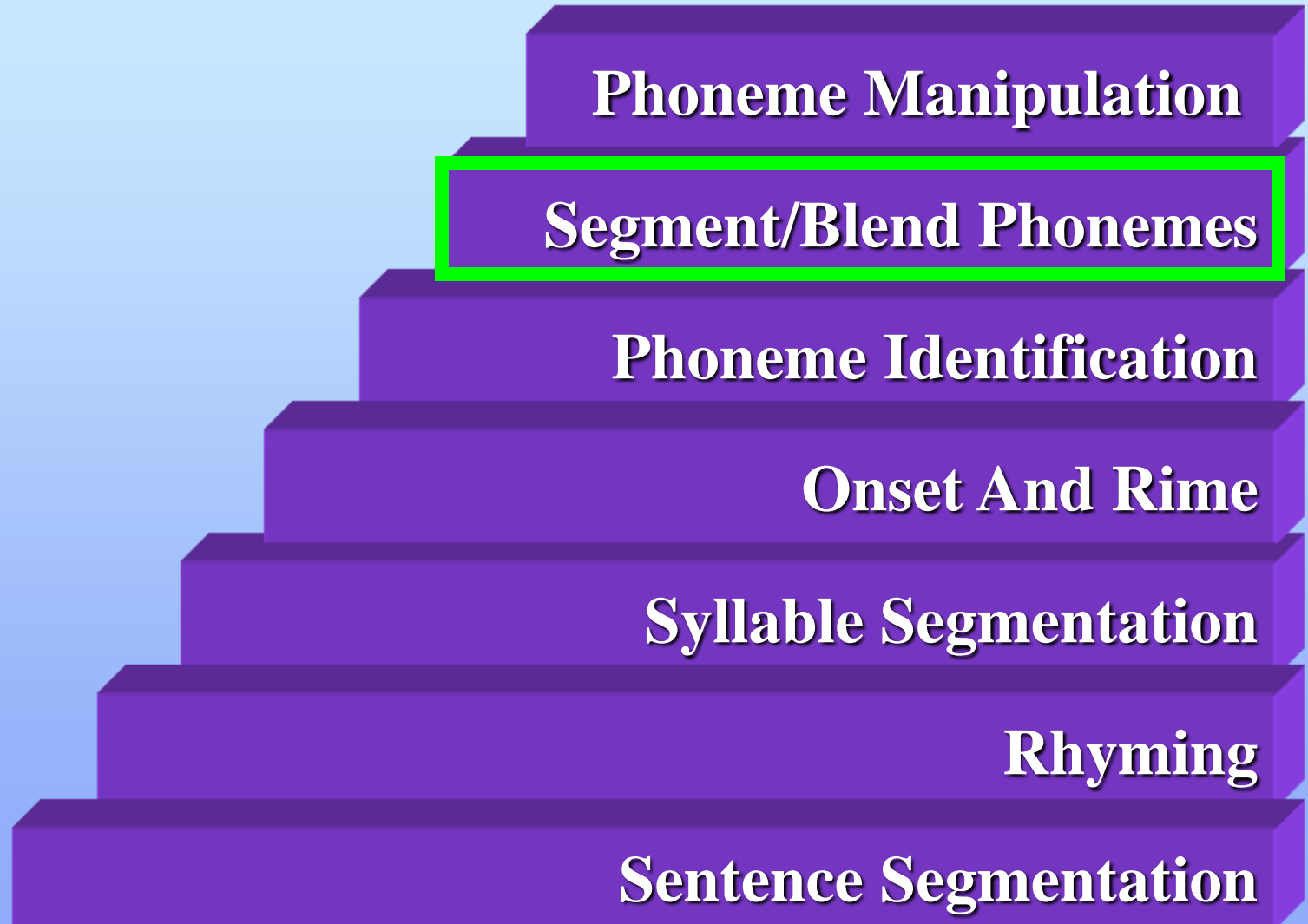# Phoneme Identification
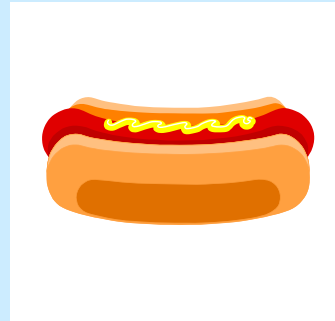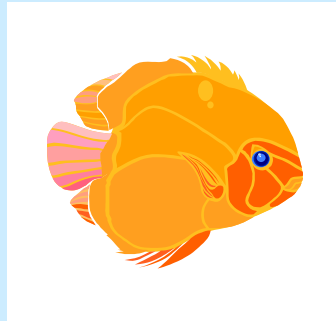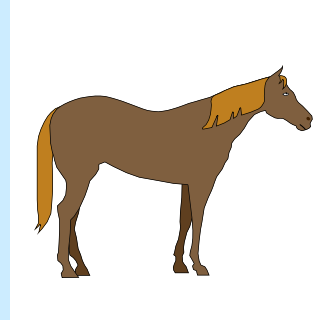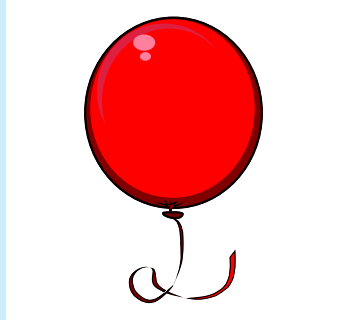
/h/

- Name the pictures.
- Present a new card, name picture, and match by beginning sound.

Phoneme Identification: Notes For Older Readers

- Ways to teach phoneme identification to older students:
  - Use picture sorting but with pictures more appropriate to age group
  - Use "Move it and say it" strategy (illustrated in later slides):
    - Segment word with counters
    - Point to counters and say phoneme (out of order)

Levels Of Phonological Awareness: Instructional Activities

Phoneme Manipulation

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Phoneme Blending: Arm Blending

1. Touch shoulder, say first sound: /m/

2. Touch crook of arm, say next: /a/

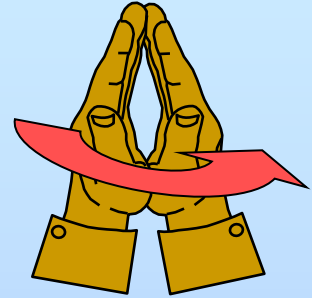3. Touch wrist, say last sound: /t/

Phoneme Blending:
Arm Blending

4. Touch shoulder, slide hand down arm, blending
   sounds into a word: mmmaaaat
5. Repeat word in normal fashion: mat
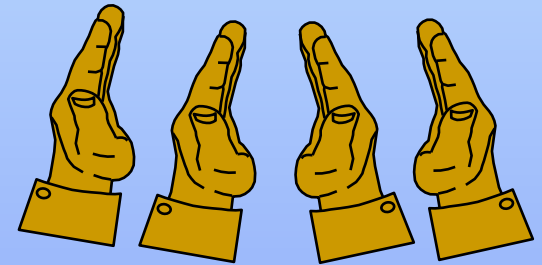
Phoneme Segmentation: Word Stretching

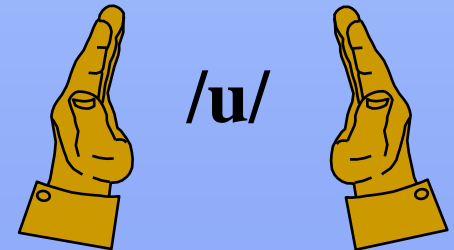- Pretend a large rubber band is stretched around hands.

- Say a word of 2 or 3 phonemes in a slow stretched-out fashion.

"sssuuunnn"

- As you say the word pull hands slowly apart.

- Bounce the hands slightly at the point of the vowel to help students isolate the sound.

**/u/**

Phoneme Segmentation: Finger Tapping

- Students hold up one hand to "catch" the word.

- Teacher says word and makes a tossing motion.

- Students "catch" the word by repeating it.

- Students touch each finger to thumb in sequence as each phoneme is pronounced.
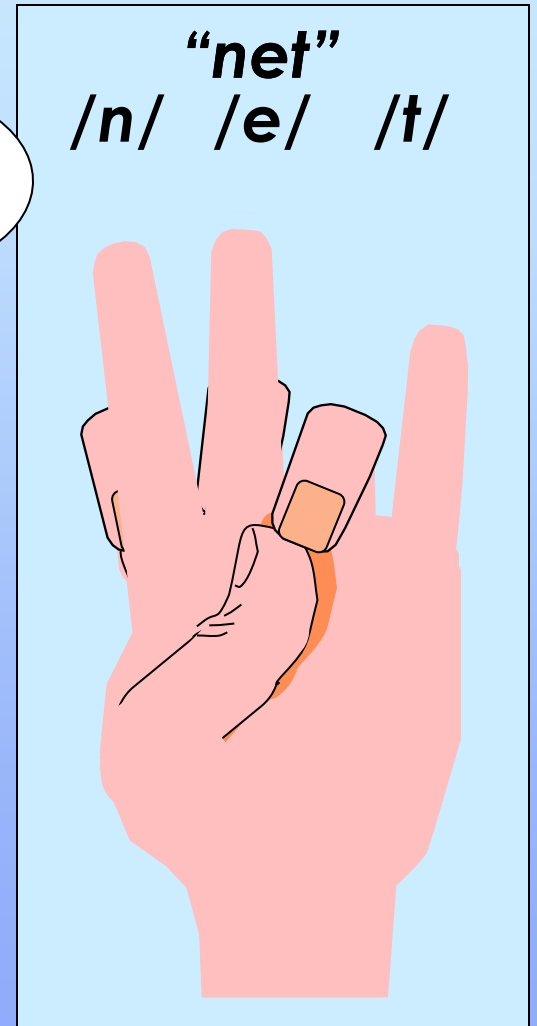
Phoneme Segmentation and Blending: Notes For Older Readers

- Phoneme segmentation and blending are the most important skills for most older students.

- Use activities from previous slides but adapt for older readers.

- Use CVC syllables from longer words or nonsense words

  - **/ab/** from abstract
  - **/ath/** from athlete
  - **/cam/** from camera
  - **/vic/** from victory
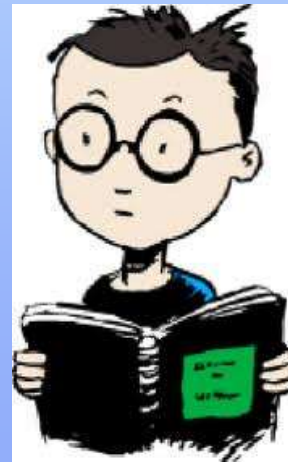
Phoneme Segmentation and Blending: Notes For Older Readers

- Adapting segmentation and blending activities for older students:
  - Use linguistic terms:
    - segmenting
    - blending
   - phonemes
    - closed syllable words

# Phoneme Segmentation and Blending: Notes For Older Readers

- Adapting segmentation and blending activities for older students:
  - Dealing with reluctance to perform motor movements such as finger-tapping, arm-blending:
    - teachers enthusiastically demonstrate activities in an adult manner
    - allow smaller movements such as finger tapping on leg or table

Transition To Decoding

- At this point, many students will be ready to begin using manipulatives marked with letters.

- The following slides demonstrate a gradual transition to decoding based on Road to the Code by Benita Blachman and colleagues.
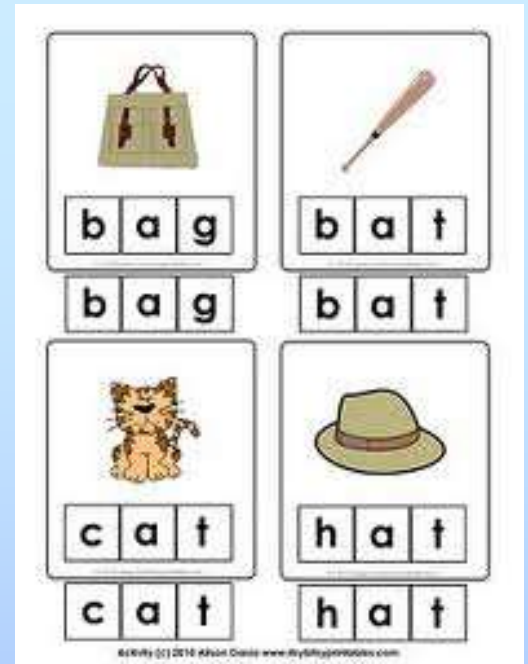
The word is "shark"
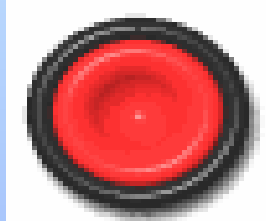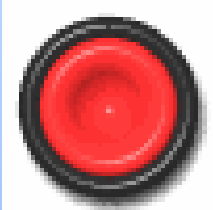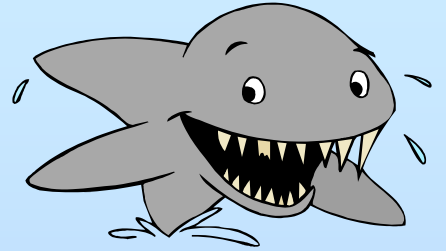
Tokens then Letters
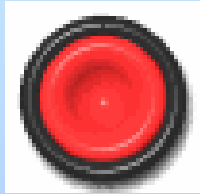
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Transition To Decoding
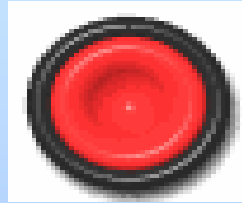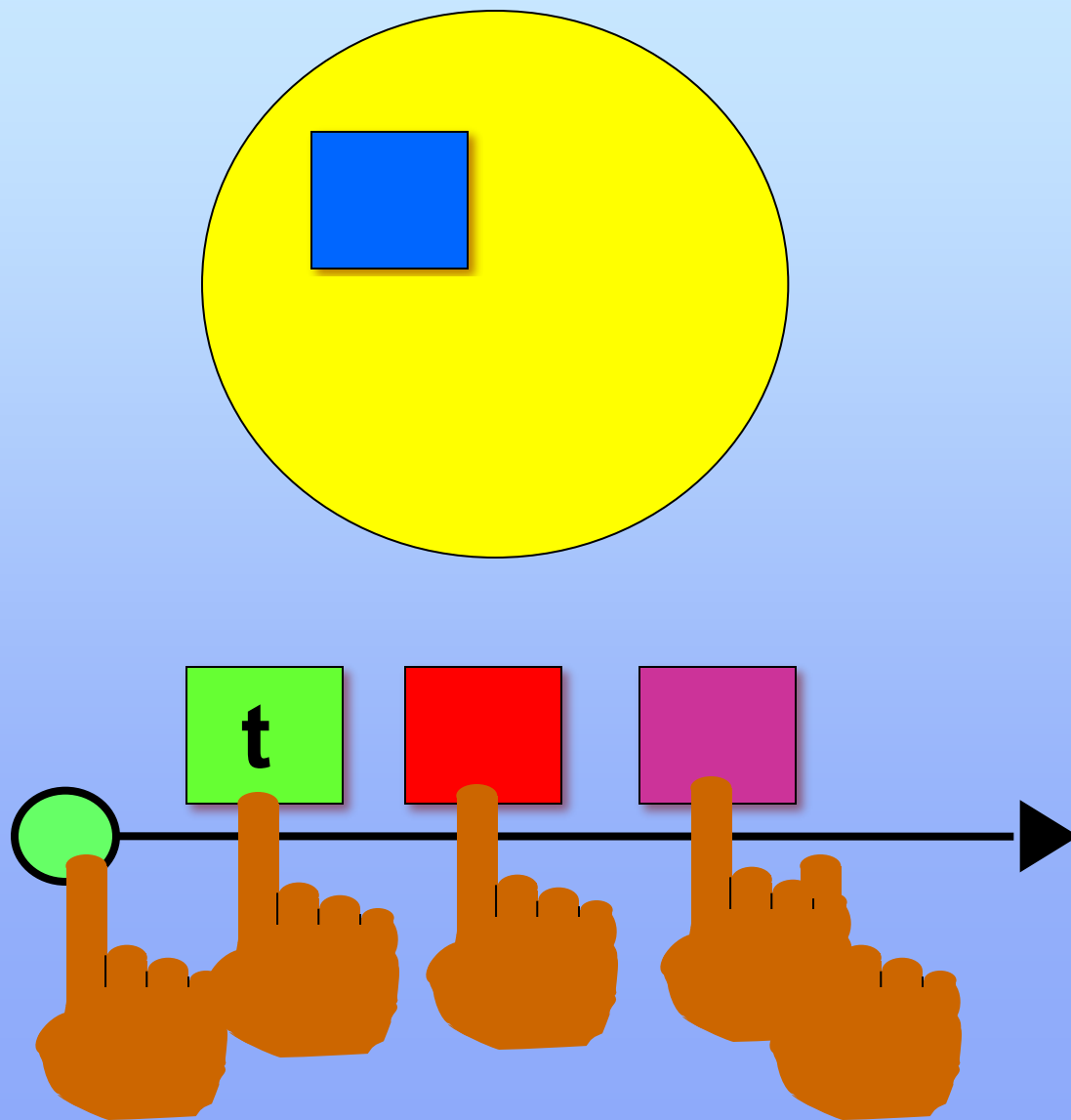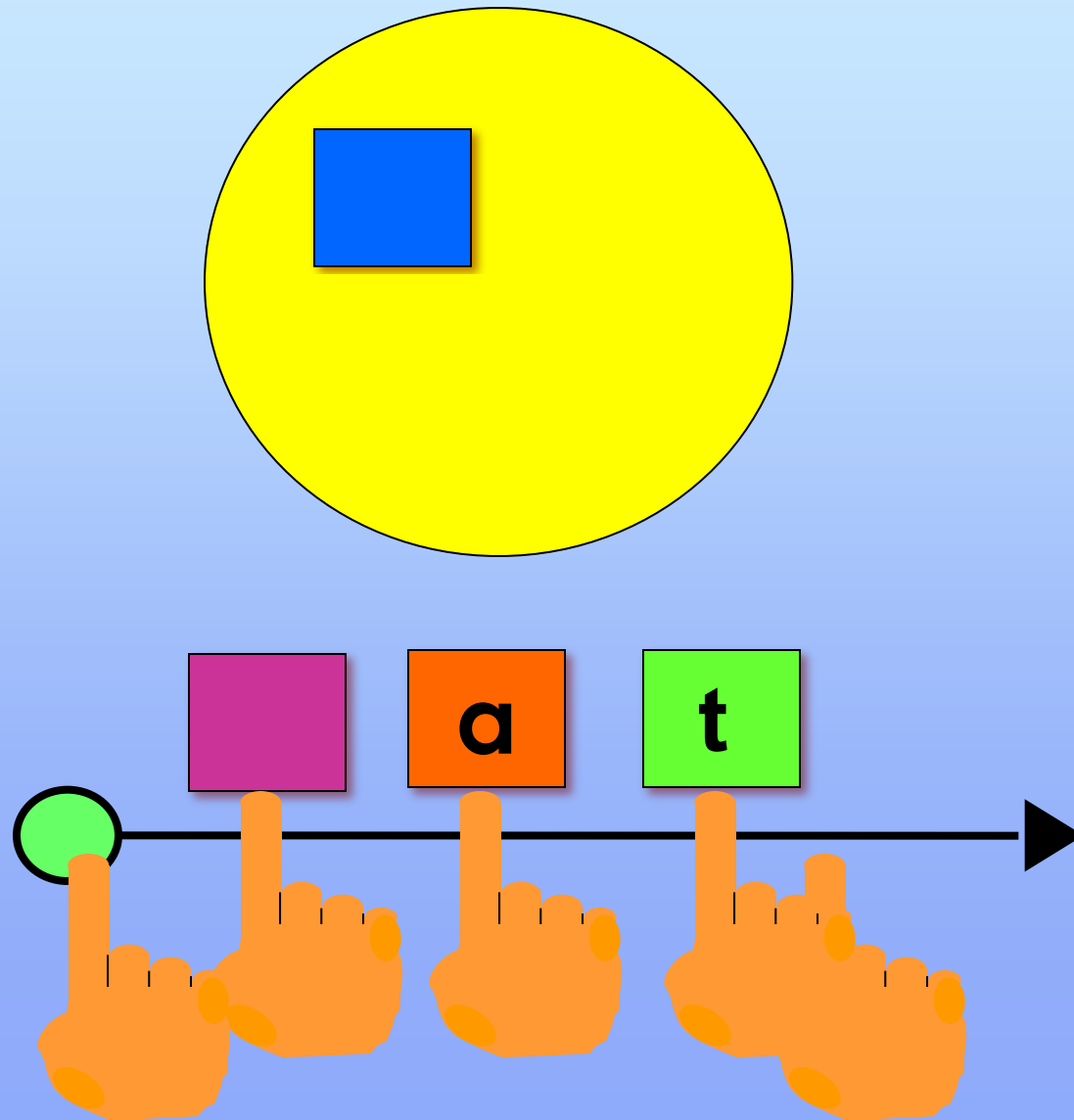
Transition To Decoding
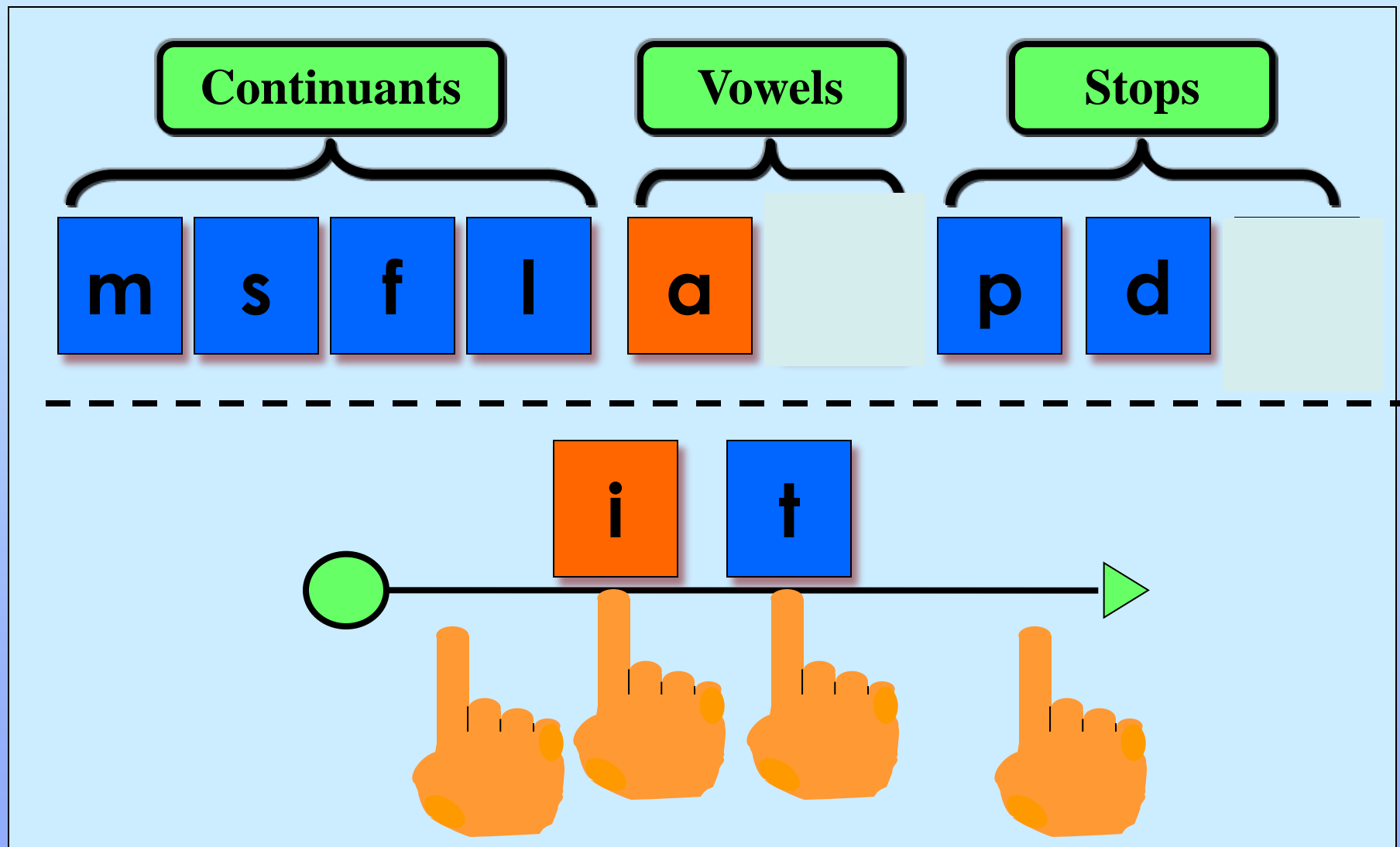
Transition To Decoding: Notes For Older Students

- Transition is critical but may be done more quickly with older students.
  - Once students can segment and blend 3 sounds move to letters.
    - Using manipulative letters continues in some programs
    - Using manipulative letters limited to introduction of new patterns or skills in other programs
  - Return to unmarked manipulatives for introducing more complex words

Levels Of Phonological Awareness: Instructional Activities

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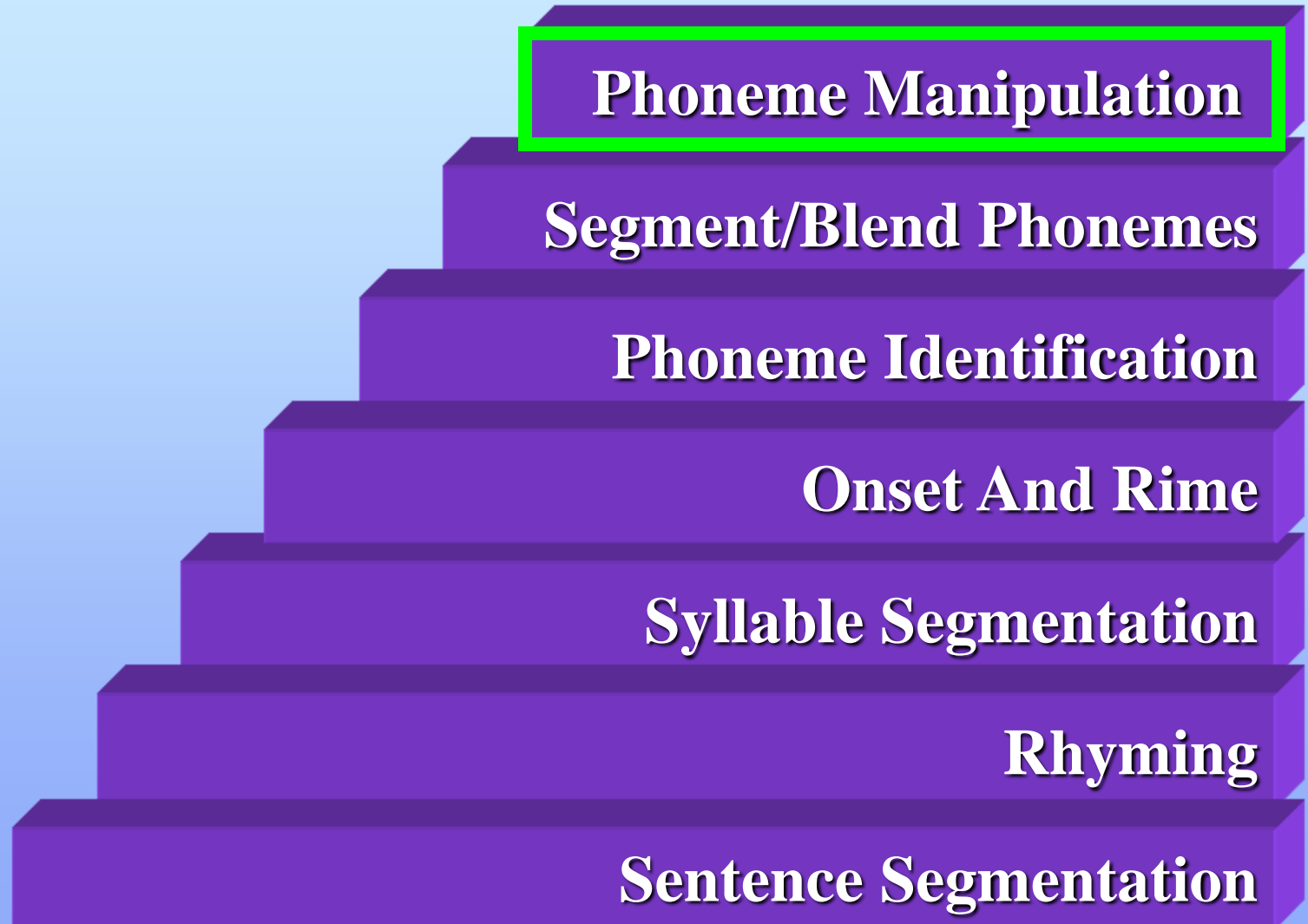
Phoneme Manipulation: Notes For Older Readers
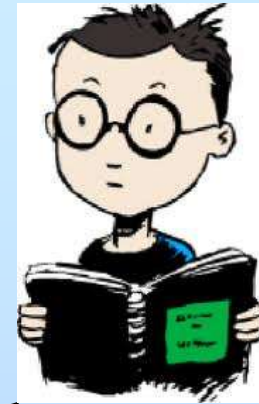
- This is the highest level of phonological awareness.

- Some poor readers who perform well at lower levels of PA, have difficulty at this critical level.

- Activities presented in previous slides can be made appropriate for older students with nonsense words or single syllables from longer words

- Word chains can be used to teach phoneme manipulation with letters

Phoneme Manipulations With Word Chains

- WORD CHAIN:

  → **at, sat, sad, dad, did, lid, slid, slip, lips, clips, claps, clasp, clasps**

  - Each step requires a change of only one phoneme.
  - Only short vowels used here, but other vowel sounds could be used.
  - Only single consonants used here, but digraphs could be used (th, sh, ch, etc.)

- Example of confusion in a word chain:

  wag   was   wash   mash   mall

Activity: Words Chains

- Write a word chain with a partner.
  - Begin with a 2 or 3 phoneme word with a short vowel
  - Make changes to beginning, middle and end
  - Add phonemes, subtract phonemes, substitute phonemes, move a phoneme from one position to another
  - Include 10 to 15 words

Phonemic Awareness Sequence For Older Students

- Determine weaknesses from assessment.

- Teach only skills needed as determined by assessment.

- For most older students, sentence, rhyming, and syllable levels are skipped.

- Most older students can begin with phoneme identification, segmentation and blending.

- Goal: Make quickest possible progress

Phonological Awareness

Guessing Game

Objective
The student will manipulate onsets and rimes in words.

Materials
▶ Onset and rime picture cards (Activity Master PA.031.AM1a – PA.031.AM1b)
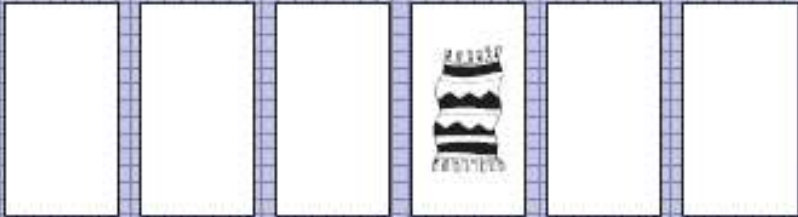
Activity
Students guess words based on onset and rime clues.
1. Place shuffled picture cards on a flat surface. Each student is dealt six cards face down.
2. Working in pairs, student one picks up a card so that student two cannot see it.
3. Gives clues describing onset and rime. For example, for rug "It begins with /r/ and rhymes with bug."
4. Student two guesses the word and student one shows the picture card.
5. Reverse roles and repeat the activity until all picture cards have been used.
6. Peer evaluation

"It begins with /r/ and rhymes with bug."

"It begins like "run" and ends like tug."

"It ends with /ug/ and begins like robot."

"Rug!"

Extensions and Adaptations
▶ Illustrate the word based on the phonemic clues.
▶ Make other picture cards (e.g., draw or cut pictures from print media).

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Phonemic Awareness

Phoneme Position Sort

✐ Objective

The student will manipulate phonemes in words.

✐ Materials

▶ Header picture cards (Activity Master PA.022.AM1)

Note: The head of the shark denotes the beginning sound, the body of the shark with fin denotes the middle sound, and the tail denotes the final sound.

▶ Set of picture cards (Activity Master PA.022.AM2a – PA.022.AM2d)

✐ Activity

Students will sort pictures by location of phoneme substitution.

1. Place header picture cards face up on flat surface. Shuffle the picture cards and place face down in a stack.
2. Taking turns, students select a card from the stack, name the two pictures ("cap" and "cup").
3. Determine the phoneme that has changed between the two pictures (e.g., ". . . the middle sound has changed from /a/ to /u/").
4. Place picture card under the header that matches the position of the changed phoneme (e.g., under the body of the shark to indicate the medial phoneme).
5. Continue until all cards have been sorted.
6. Peer evaluation

"Cap, cup. The middle sound has changed from /a/ to /u/."

✐ Extensions and Adaptations

▶ Make more phoneme substitution picture cards.

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Phonemic Awareness

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INITIAL: lap - cap, pan - fan, rug - bug, bed - head, pen - ten, bell - shell, pin - fin, hat - cat

Remember

- Phonemic decoding skills should never be considered the end goal of reading.

- Longitudinal research has shown that PA is necessary but not sufficient for becoming a good reader.

- PA is an oral language skill, and a child does not have to have any knowledge of letters to demonstrate beginning levels of it.

Summary: Match Needs And Instruction

- For kindergarten, begin at most basic level and teach all levels of Phoneme Awareness.

- For older students, base instruction on assessment.

- Most remedial instruction for older students will begin with phoneme segmentation and blending.

- Move to decoding as quickly as possible

Felton & Lillie, 2001

1. Segmentation Task – Syllable

1. Segmentation Task: Syllable and Phoneme

Item	Correct response	Student's response
picnic	2 taps	+ 2 taps
octopus	3 taps	+ 3 taps
boat	1 tap	- 2 taps
pepperoni	4 taps	- 3 taps
spider	2 taps	+ 2 taps
alligator	4 taps	+ 4 taps

(even after prompting, modeling)

had her clap, try chin drop - still 3

initially answered 3, self-corrected without prompts

2. Deletion task - Syllable

2. Deletion Task: Syllable and Phoneme

Item	Question	Correct Response	Student's Response	
Say popcorn	Say it again, but don't say	pop	corn	±
Say football	Say it again, but don't say	ball	foot	±

Practice items are not counted.

Syllable deletion:

Item	Question	Correct Response	Student's Response	
Say napkin	Say it again, but don't say	kin	nap	±
Say candy	Say it again, but don't say	can	dy / dee/	±
Say alphabet	Say it again, but don't say	bet	alpha	−
Say cantaloupe	Say it again, but don't say	can	taloupe	−

after directions repeated

"al," then "alph"

"lope," then "pe-lope"

1. Segmentation Task - Phoneme

Phoneme segmentation:

Item	Correct Response	Student's Response
up	/u - p/ **2 taps**	*+ 2 taps*
say	/s - a/ **2 taps**	*+ 2 taps*
mat	/m - a - t/ **3 taps**	*- "m-at" 2 taps*
shop	/sh - o - p/ **3 taps**	*+ sh-o-p, 3 taps*
trick	/t - r -i - k/ **4 taps**	*- tr-ick, 2 taps*
smash	/s - m - a sh/ **4 taps**	*+ s-m-a-sh, 4 taps*

able to correct after modeling

responded correctly after modeling

Number correct syllable: *4*

Number correct phoneme *4*

2. Deletion Task - Phoneme

Initial phoneme deletion:
Say <u>bat</u> Say it again, but don't say /b/   at   +
Say <u>pow</u> Say it again, but don't say /p/   ow   - *aw*
Say <u>heart</u> Say it again, but don't say /h/   art   + *art*

> after directions repeated

Final phoneme deletion:
Say <u>make</u> Say it again, but don't say /k/   may   -
Say <u>nose</u> Say it again, but don't say /z/   no   +
Say <u>seat</u> Say it again, but don't say /t/   sea   -

> M-a, then "mate"

> "seat," correct after modeling

Initial blend deletion:
Say <u>slip</u> Say it again, but don't say /s/   lip   -
Say <u>blow</u> Say it again, but don't say /b/   low   +
Say <u>cram</u> Say it again, but don't say /k/   ram   +

> '"pl" then "plip"

Number correct syllable: 2/4
Number correct initial phoneme: 2/3
Number correct final phoneme: 1/3
Number correct initial blend: 2/3

Student Summary

Teaching Students with Persistent Reading Problems
Basic Reading Skills Assessment: Student Summary

Student:___**J. J.**_____ Grade: ___**4**_____ Age: ____**9**_____

Date of assessment: ____**11/6/02**_____Teacher: _____

<u>Phonemic Awareness</u>   <u># correct/ # given</u>

1. Segments words into syllables (task 1)   **4/6**_____

2. Deletes syllables (task 2)   **2/4**_____

3. Segments words into phonemes (task 1)   **4/6**_____

4. Deletes initial phonemes (task 2)   **2/3**_____

5. Deletes final phonemes (task 2)   **1/3**_____

6. Deletes sound from initial blend (task 2)   **2/3**_____

Developing A Goal And Objectives For JJ

- What would be an overall goal for JJ?
- Where should instruction begin?
- What would be the next step?
- What would be the final step?

Remember, the ultimate goal is for each student to:

- Identify,
- Segment,
- Blend, and
- Manipulate Phonemes

Goals For JJ: Examples

GOOD

- JJ will segment and blend sounds within words (of 3 to 5 sounds).

- JJ will segment, blend and manipulate sounds within words of (3 to 5 sounds).

POOR

- To be able to segment words into phonemes and delete final phonemes.

- JJ will improve (or increase) her syllable deletion skills.

Writing Objectives For Phonological Awareness

- Remember all activities should…
  - be oral--sounds, not letters
  - relate to the goal
  - be addressed in order of difficulty and instruction
  - be specific enough to tell exactly what the student will be doing

Examples Of Objectives For JJ

GOOD

- Given a 3 sound word, JJ will segment and blend individual phonemes with 100% accuracy.

- Given a 3 sound word, JJ will repeat and say the word without the initial phoneme with100% accuracy. (Could be repeated for final then medial sounds)

- When given a CCVC word (initial blend), JJ will say and tap each phoneme.

- JJ will add, delete, substitute, and move phonemes within words with up to 6 sounds.

POOR

- Student will segment phonemes.

- Student will blend words.

- Student will delete blends from words.

Writing An Instructional Plan

- Relate to each objective
- Include materials and methods
- Use different manipulatives for different levels of analysis (syllables, phonemes)
- Use activities from CD or PowerPoint

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