

Phonemic Awareness

Introduction

Even before children enter school, they are preparing for reading and writing through their oral language experiences. Beginning with the development of spoken language, children fine-tune their skills to include the ability to identify words in sentences, syllables in words, and individual phonemes in syllables. These latter skills are referred to as phonological awareness skills, with phonemic awareness being the most discreet skill of identifying specific speech sounds (phonemes). This awareness of sounds at the oral level facilitates the development of reading and spelling in young children as they learn the relationship between the sounds they hear and the letters and words they see in print. The following definitions are provided for clarification of commonly used concepts that are frequently confused.

Table 1. Definitions

Term	Definition	Examples/Clarification
Alphabetic Principle	The alphabetic principle is the understanding that “the written word is composed of graphemes (letters) that correspond to phonemes (sounds).” (Hempenstall, 2000).	<ul style="list-style-type: none"> we use an alphabetic script whereby sounds are represented by letters as opposed to logographic writing whereby a word is represented by a picture or symbol (as in Chinese writing)
Grapheme-Phoneme Correspondence	This refers to the pairing of a written symbol with the sound heard in spoken language.	<ul style="list-style-type: none"> ‘th’ is pronounced /th/ as in “thin” ‘c’ is pronounced /k/ as in “cat”
Phoneme	A phoneme is a ‘sound’ or the smallest unit of speech. It is typically represented by a letter or symbol enclosed by ‘/ /’. Any time you see a letter enclosed by ‘/ /’, make the sound for the letter rather than say the letter name.	<ul style="list-style-type: none"> the sound for the letter ‘s’ is /s/ the sounds/phonemes for the letter ‘c’ are /k/ and /s/ the word “ox” has three phonemes: “/o/ /k/ /s/”.
Phonemic Awareness	Phonemic awareness refers to “...the understanding that words are made up of individual sounds or phonemes and the ability to manipulate these phonemes either by segmenting, blending or changing individual phonemes within words to create new words.” (Chard and Dickson, 1999). Phonemic awareness is a high level phonological awareness skill. It is this level of phonological awareness that is needed for successful reading and spelling.	<ul style="list-style-type: none"> ‘sock’ starts with the sound /s/ ‘shoe’ starts with the sound /sh/ the word “witch” is made up of three phonemes “/w/ - /i/ - /ch/” the sounds “/p/ /l/ /a/ “ blended together make the word “play” if the sound /s/ is taken from the beginning of the word “sat” and replaced with /m/, the new word is “mat”

Phonetically Controlled	This refers to stories which contain mostly phonetically regular spelling patterns. Words with phonetically regular spelling patterns may be decoded by ‘sounding out’.	<ul style="list-style-type: none"> • ‘cat’, ‘slap’, ‘blanket’, and ‘mask’ are phonetically regular as each letter represents a distinct sound. • ‘bone’, ‘bird’, ‘joy’ and ‘little’ are phonetically regular as they represent regular orthographic or syllable patterns. • ‘what’, ‘once’, ‘sure’, ‘put’ and ‘beautiful’ are sight words as these words cannot be decoded phonetically but rather have to be memorized.
Phonics	“Phonics” refers to the relationship between the sounds of spoken language and the written symbols used to represent those sounds. It is “...the process of giving sounds to single consonants, consonant clusters, single vowels, and vowel clusters.” (Bishop and Bishop, 1996)	<p>Phonics involves the explicit teaching of concepts such as:</p> <ul style="list-style-type: none"> • consonant sounds (/b/, hard /c/, /d/, hard /g/, /h/, /j/, /k/, /m/, /n/, /p/, /t/ and /w/) • short vowel sounds (/a/, /e/, /i/, /o/, and /u/) • rimes and corresponding onsets (e.g., b...ack, l...ack) • common three-letter consonant blends
Phonological Awareness	<p>Phonological awareness is a broad term that refers to all levels of awareness of the sounds and syllables heard in oral language. It is “an understanding of the different ways that oral language can be divided into smaller components and manipulated. It involves the auditory and oral manipulation of sounds.” (Chard and Dickson, 1999).</p> <p>Phonological awareness may range from implicit awareness that words rhyme to the more explicit level of explaining how rhymes are made, manipulating sounds in words to create new words, and understanding and creating puns and riddles.</p>	<ul style="list-style-type: none"> • spontaneous repairs of errors in speech (“You said ‘boots’ but I only want one boot.”; “That’s not a fin that’s a fan.”) • the creation of silly rhymes through word play (e.g., “My name is Susan Busan.” “I have a blue shoe.”) • judging if words rhyme (“Tiger and figer, they rhyme. Table and chair, they don’t rhyme.”) • isolating the first sound of a word by iteration (b-b-book; m-m-mud) • segmenting words into sounds (/f/... /i/... /n/) • using knowledge of sounds for letters to spell words
Sight Words	Sight words are words that are recognized automatically by sight without the need for phonetic decoding or analysis.	<ul style="list-style-type: none"> • words that are phonetically irregular will need to be learned by sight: ‘the’, ‘was’, ‘what’, ‘to’ • frequently used words are learned by sight to facilitate speed of reading and fluency (e.g., and, but, it, with, can, like)

Word Analysis/Structural Analysis	“Structural analysis is the analysis of the structure of a word. ...the task of structural analysis is to break down large words into more meaningful units.” (Bishop and Bishop, 1996)	<ul style="list-style-type: none"> • the word ‘examination’ may be “chunked” into more manageable units: ‘exam’, ‘in’, ‘a’, ‘tion’ • the word “forgetful” contains the suffix ‘ful’ and the two short words ‘for’ and ‘get’ • the word ‘plank’ may be divided into ‘pl’ and the familiar rime ‘ank’
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Developmental Hierarchy

Research has demonstrated a developmental hierarchy for the emergence of phonological awareness skills. As with development in any area, variations in the acquisition of skills will be seen with different children. However, the consistency with which researchers have identified skills emerging at different age levels provides a guideline for instruction:

- Awareness that words can rhyme - then production of rhymes
- Awareness that sentences are made up of words.
- Awareness that words can be broken down into syllables - then identification of syllables
- Awareness that words begin with the same sound - then identification of the beginning sound of words
- Awareness that words end with the same sound - then identification of the final sound of words
- Manipulation and/or deletion of the initial or final sound of words
- Awareness that words can have the same medial sound - then identification of the medial sound
- Awareness that words can be broken down into individual phonemes
- Ability to blend sounds to make words
- Ability to segment words into constituent sounds

(See, for example, Hemenstall, 2000; Adams, 1990; Ball, 1993; Catts & Vartiainen, 1993; Warrick, Rubin & Rowe-Walsh, 1993)

Continuum of Phonological Awareness Complexity				
Less Complex Activities		More Complex Activities		
Oral Work Play	Rhyming	Sentence Segmentation & Blending	Syllable Segmentation & Blending	Blending & Segmenting Individual Phonemes
(Adapted from Chard & Dickson, 1999)				

Reading Connection

A large body of research has shown that “children’s phonological awareness in kindergarten or at the beginning of grade 1 is closely related to early reading success.” (See, for example, Catts, 1999). Children who perform poorly on phonemic awareness tasks in kindergarten and grade 1 are often well behind their peers in reading at the end of grade 3. According to Liberman, Shankweiler, and Liberman (1989, as cited in Chard and Dickson, May 1999) the most common barrier to developing early word reading is the inability to process language phonologically. Inclusion of phonemic awareness tasks as part of a balanced early reading program has been shown to prevent or reduce persistent reading problems. Phonological awareness instruction has the greatest impact on reading when it is combined with direct and consistent instruction in the semantic, syntactic and pragmatic cueing systems.

Considerations for phonological awareness activities:

- Complete activities within a meaningful context.
- Select activities that are fun and engaging.
- Select activities at appropriate developmental levels to encourage success and facilitate positive self-esteem.
- When selecting words for initial phoneme identification or segmentation activities, select words with continuant sounds or sounds that can be ‘stretched’ (e.g., /m/, /n/, /l/) in the initial position as these sounds are the easiest to identify at the beginning of words.
- When selecting words for final phoneme identification tasks, select words with stop consonants (e.g., /p/, /t/, /k/, /d/) in the final position as these sounds are the easiest to identify at the end of words.
- When identifying or combining sound sequences, begin with a Consonant + Vowel (CV) pattern (e.g., pie), then practise a VC pattern (e.g., egg), followed by a CVC pattern (e.g. red).
- Be aware that regional dialect may influence students’ responses on phonological awareness tasks. Accept responses as correct if they reflect the local dialect (e.g., In some communities there is little distinction between the short ‘i’ and short ‘e’ sounds, therefore ‘Vick’ and ‘peck’ will rhyme. In some regions, “house” begins with a vowel sound and “egg” begins with /h/). While it is appropriate to accept dialect variations within the context of these early activities, it is important to teach students standard pronunciations as they progress through school and also to teach in which contexts standard productions are required.

- Accept responses as correct if they reflect consistent speech-sound substitutions (e.g., If a child consistently substitutes /t/ for /k/ as in “tan” for “can”, accept the production /t/ as the initial sound for “can” until the student is physically able to make the /k/ sound. To ensure that the student really does know the correct response, you may give the student two possible responses (/k/ or /p/) and ask the student to tell you which response is correct, number one or number two. You may also ask the student to point to the letter that corresponds with the initial sound if the student has learned letter-sound correspondence.

Specific curriculum outcomes: Reading and Viewing	Level	Phonological Awareness Skills
<p>Students will be expected to: use, with support, the various cueing systems and a variety of strategies to construct meaning from text</p> <ul style="list-style-type: none"> begin to use knowledge of sound-symbol relationships as one reading cue (e.g., initial and final consonants) <p>(English Language Arts, Primary: A Curriculum Guide, p. 80)</p> <p>It is expected that the child will</p> <ul style="list-style-type: none"> show interest in certain aspects of spoken language such as rhyme and rhythm show interest in playing with words and sounds in words know that letters are put together to make words begin to focus on print to get meaning use sound-symbol relationships (usually beginning consonants) <p>(Early Beginnings! Kindergarten Curriculum Guide, p. 45-46)</p>	E M E R G E N T	<ul style="list-style-type: none"> spontaneous comments about language production of self and others (You said “fis” for “fish”.) repair of speech errors (We is, we are going to the store.; We goed, we went sliding.) early word play tapping syllables (beats) starting to judge if words rhyme creating rhymes
		<ul style="list-style-type: none"> consolidation of rhyming recognition and production isolating the beginning sound of a word by iteration (rapid repetition, for example “b-b-beat”) begin temporary spellings if acquiring alphabet knowledge.
		<ul style="list-style-type: none"> phoneme identification (first, final and medial sounds) phoneme analysis (tapping and counting sounds in words) phoneme deletion (Say “gate” without the /g/) phoneme segmentation (Stretch the sounds in the word “sap” - /s/.../a/.../p/) phoneme blending (Tell the word made by these sounds - /ch/.../ i /.../p/ - “chip”).

Suggestions for Teaching/Learning	Assessment
<p>The teacher and parents may provide many opportunities for students to participate in oral word play through nursery rhymes, alliteration, poems, songs, finger plays, chants, rhyming stories.</p> <ul style="list-style-type: none"> * Talk about the sounds heard in words and the beats that make up words. * March to the beat of the words in songs or chants. * Indicate the number of syllables in words by beating rhythms with musical instruments. * Clap hands and count the number of “claps” or syllables in “theme” words (e.g., Halloween, caterpillar, penguin). * Comment specifically on the words that rhyme in stories and poems (“Bed, red...they rhyme!). * Ask students to provide the rhyme at the end of a couplet in a story or poem. * Introduce new objects with rhyming clues (e.g., “I have a new fruit in my secret bag today. It rhymes with ‘peewee’. Guess what I brought today?) * When calling on students, give a rhyme for their name instead of the actual name (e.g., “Busan, you have a turn.”). * When putting on clothing to go home make up rhymes for the items (mitt - bit; mitten - kitten; boot - hoot; hat - sat). * Make up rhymes for items in the classroom or items related to a particular theme. * Use rhyme or syllables to dismiss students (e.g., “If your name rhymes with “Park” get your coat.”; “If your name has one beat/syllable stand by the door.”). 	<p>Observe students’ oral language skills and note that those with speech production difficulty, immature grammar, and/or apparent comprehension difficulties are at risk for difficulty with phonological awareness and phonemic awareness tasks.</p> <p>Observe whether students readily follow the beat or rhythm of words.</p> <p>Observe whether students can identify the number of syllables in words.</p> <p>Observe and note students’ ability to recognize rhyme, to complete rhyming couplets and to produce rhyme during formal and informal activities.</p>

Suggestions for Teaching/Learning	Assessment
<p>As students become more aware of the structure of words, the teacher may draw their attention to smaller units; i.e., the phoneme or sound. Kindergarten students learn to relate the sounds they hear to the letters they see for reading and spelling. Phonemic awareness activities focus first on the beginning sounds of words.</p> <ul style="list-style-type: none"> * Sort pictures and classroom items by beginning sound (e.g., “Put all the toys that start with /p/ in the box [puppet, penguin, popsicle stick, pan, play-doh]”; “Find ‘animals’ that start with /s/ [snake, salmon, spider, sloth, seal]”). * Think of winter words that start with a specific sound, for example /s/ words such as snow, snowman, scarf, slippery, sweater, stormy and skate. * Play “Simon Says” with instructions for those students whose names begin with a specific sound to complete an action (e.g., “If your name starts with /t/ pat your head, if your name starts with /m/ jump up and down, and so on.”). * Use the tunes of familiar songs to sing about the sounds in words. For example “What’s the sound that starts these words” (Yopp, 1992) is sung to the tune of “Old MacDonald Had a Farm”; “Can you Say the First (last,middle) Sound? (Blevins, 1997) is sung to the tune of “Happy Birthday to You”. <p><i>What’s the sound that starts these words: fish and frog and fun?</i> <i>/f/ is the sound that starts these words: fish, and frog, and fun.</i> <i>With a /f/, /f/ here, and a /f/, /f/ there, here a /f/ there a /f/ everywhere a /f/, /f/.</i> <i>/f/ is the sound that starts these words: fish, and frog and fun.</i></p> <p><i>Can you say the first (last) sound? Can you say the first (last) sound?</i> <i>It’s the first (last) sound in mitten. Can you say the first (last) sound?</i></p> <p>Incorporate rhymes and beginning sounds to encourage the students to guess words during story time (e.g., “Our story is about a boy whose name starts with /m/ and rhymes with cycle? (Michael)).</p> <ul style="list-style-type: none"> * When grouping students for centers, the groups may be sorted according to the initial sounds in the students’ names. * When dressing for home or gym, the beginning sound of the clothing items may be stressed (e.g., “I’m putting on something that starts with /k/ (for coat).”; “Who is wearing something that starts with /s/ (scarf, socks, sandals)?”). * Students listen to a story and raise their hands when they hear a word beginning with a particular sound. 	<p>Keep a record of which letter sounds the students know. Note both directions: can the students give the sound(s) when shown a picture; can the students name an object after they hear the sound.</p> <p>Observe as students sort pictures and objects and note whether they are attending to the initial sounds.</p> <p>During shared reading, note whether students can predict words based on the rhyme or initial phoneme.</p> <p>Monitor students’ ability to follow actions based on identifying the beginning sound in words.</p> <p>Note whether students are able to participate easily in tasks or whether they need to follow a model.</p>

Suggestions for Teaching/Learning	Assessment
<p>As students become more aware of the sounds in words, specific activities may be incorporated into theme work. Game boards, balls, bean bags or musical instruments may be used with many activities as students take their turns.</p> <p>Phoneme Blending</p> <ul style="list-style-type: none"> * Blend larger chunks of words initially (e.g., Say pa...per. Now say the parts together to make a word. What is the word? <i>paper</i>; Say these word parts and then say the word as a whole, /m/...at. <i>mat</i>). * To blend individual sounds, at first use words that begin with sounds that can be stretched (continuous consonants) such as /s/, /m/, /l/, /f/, /r/ and /z/ (e.g., /f/.../a/.../t/ - <i>fat</i>). * Use visual cues to demonstrate the stretching of sounds. For example, stretch an elastic band as you say the sounds for /mmmmaaaannnn - man/; extend one hand and arm and use the opposite hand to slide up the arm as you say the sounds for a word such as /fffffiiiiittttt - <i>fit</i>/. * Play guessing games in which the students have to guess the answers to riddles by blending sounds. The difficulty of the blending task will depend on the level of the students (e.g., I'm thinking of an animal. It's a (an): /ti...ger/ - <i>tiger</i>, /f...ish/ - <i>fish</i>, /kkk...aaa...ttt/ - <i>cat</i> <p>Phoneme Deletion</p> <ul style="list-style-type: none"> * Delete one syllable from a compound word (e.g., Say <i>popcorn</i>. Say it again without <i>pop</i>). * Delete the initial or the final sound of words (e.g., Say <i>fish</i>. Say it again but don't say /f/. Say <i>plate</i>. Say it again but don't say /t/). * Delete one sound from a consonant blend (e.g., Say <i>ground</i>. Say it again but don't say /g/). * Read a story orally and switch the beginning or final sound of a word while the students listen for the error (e.g., "The cat chased the house" (for mouse) or "The very hungry paterpillar" (for caterpillar).) The students may identify which sound was changed. <p>Phoneme Segmentation</p> <ul style="list-style-type: none"> * Use blocks, tokens, colored chips or other manipulatives to represent the sounds in Consonant-Vowel-Consonant words as the sounds are stretched or separated orally (e.g., r-e-d, m-o-m, d-a-d). One block is moved across a surface for each sound heard (e.g. shoe - /sh/.../oo/ - two blocks.) * Drop one marble in a tin can for each sound heard in a word (e.g., "Cheese" - one marble for /ch/, one for /ee/ and one for /z/). * After reading a big book or poem, select words with one-to-one letter-sound correspondence, print the words on cue cards, cut the letters apart, and practise blending and segmenting the sounds in the words. (The emphasis is on the sounds rather than on the letters.) 	<p>Observe and record students' responses during oral activities. Pay attention to the incorrect responses as a cue to the students' current level of understanding.</p> <p>Observe whether students are able to complete tasks without visual cues or models.</p> <p>Note students' responses when asked to blend or segment sounds. Keep a record of the smallest unit(s) the student is able to blend or segment.</p>

Specific curriculum outcomes: Reading and Viewing	Level	Phonological Awareness Skills
<p>Students will be expected to:</p> <p>use a combination of cues (semantic, syntactic, graphophonic, and pragmatic) to sample, predict, and monitor/self-correct</p> <ul style="list-style-type: none"> • predict on the basis of what makes sense, <i>what sounds right</i>, and <i>what the print suggests</i> • begin to monitor their own reading by cross-checking meaning cues with cues from beginning and last letters of the word (Did it make sense? Did it sound right? If it's tiger, would it start with "p"?) <p>(English Language Arts, Primary: A Curriculum Guide, p. 90)</p> <p>It is expected that the child will</p> <ul style="list-style-type: none"> • know that one-to-one matching is necessary in reading • know the relationship between sounds and letters • use word attack strategies to construct meaning • use initial consonant substitutions to form words that rhyme • use knowledge of known words and affixes to decode a new word <p>(Early Beginnings! Kindergarten Curriculum Guide, p. 46-47)</p>	E A R L Y	<ul style="list-style-type: none"> - <i>consolidation</i> of phonemic awareness: <ul style="list-style-type: none"> - identifying initial, final and medial sounds - phoneme segmentation - phoneme blending - phoneme manipulation (e.g., replace the first phoneme of the word 'pit' with /s/ and tell the new word) - application of phonological awareness skills and letter-sound knowledge to print (phonics) - word analysis / structural analysis

Suggestions for Teaching/Learning	Assessment
<p>As students progress through grade 1 and grade 2, phonemic awareness is reinforced by reading skills and vice versa. It is at this stage that the connection between sounds and print becomes more explicit.</p> <ul style="list-style-type: none"> * Use knowledge of rhymes to change the beginning sounds of words to illustrate how changing one sound or one letter results in a new word. * As students encounter words in print, identify the sounds made by the beginning letter and think of words beginning with those sounds. * Direct attention to the final sounds of words seen in print. * Direct attention to the vowel sounds of words seen in print. (Some students may initially need to focus on one vowel sound at a time until they understand how blending and segmenting sounds results in reading and spelling respectively.) * Segment words orally into their sounds, print these words and read them back to reinforce both reading and spelling. * Place a rime or phonogram (e.g., at, am, it) on a letter board. Place the corresponding letter at the beginning of the word as the students complete rhymes. * Make phonogram wheels with common rimes (e.g., am, at, ap, it, in, op, ot, on, up). Make the wheels in the shape of story characters or theme objects. * Select phonetically regular words from the students' shared reading texts and practise blending the sounds. Spell phonetically regular words from the shared text by stretching the sounds with an elastic or blocks as visual aids. * Ask students to find words in a text as they prepare to read from a Big Book. * Select a letter or print a letter on the chalkboard or chart paper to represent the sound heard at the beginning of a word. 	<p>Keep a running record of miscues. Note whether students are attending to all the sounds in words, the beginning sound, the final sound, the medial sound?</p> <p>Note whether students have mastered sound - symbol correspondences for consonants.</p> <p>Note whether students are able to read phonetically regular words.</p> <p>Note whether students are developing a sight-word vocabulary for reading.</p> <p>Observe students' miscues and spelling approximations and note whether they are applying their phonemic awareness skills in both contexts. (e.g., if a student spells "fat" - <u>ft</u> the student may need extra practice segmenting words orally.)</p>

Specific curriculum outcomes: Reading and Viewing	Level	Phonological Awareness Skills
<p>Students will be expected to:</p> <p>use blending as one strategy for decoding words</p> <p>(English Language Arts, Primary: A Curriculum Guide, p. 104)</p>	<p>T R A N S I T I O N A L</p>	<ul style="list-style-type: none"> - continued application of phonological awareness skills to more sophisticated reading and spelling. - word analysis / structural analysis - application of sounds to more sophisticated letter sequences (vowel teams {ea, ow, ou}; vowel /r/ {ar, ire, or}; prefixes and suffixes {tion, re, un})

Suggestions for Teaching/Learning	Assessment
<p>At this level, students have mastered phonological awareness skills, including the most complex level of phonemic awareness. Instruction at this level is focused specifically on print with <i>phonics</i> and <i>word analysis</i> receiving greater emphasis than phonological awareness or phonemic awareness activities.</p>	<p>Observe students reading orally and note miscues. Identify whether the errors result from:</p> <ul style="list-style-type: none"> - lack of knowledge of sound-symbol correspondences, - lack of knowledge of vowel sounds, - lack of knowledge of regular syllable spelling patterns (e.g. silent e rule, vowel teams, vowel-r combinations, consonant-le syllables, prefixes and suffixes), - weak comprehension skills, - slow reading, poor fluency, and weak decoding limiting the ability to use context. <p>During individual conferences note any differences reading single words versus sentences, versus stories.</p>

Commercial Programs and Resources:

Many commercial programs with specific activities for phonological awareness are available. These provide a variety of ideas for facilitating phonological awareness within the classroom. They also provide a more in-depth level of instruction for children demonstrating difficulty with these early skills. A selection of resources is provided below:

Auditory Discrimination in Depth, by Patricia Lindamood & Charles Lindamood. PRO-ED Publishing.

Daisy Quest & Daisy's Castle, by Gina Erickson, Kelly Foster, David Foster & Joseph Torgesen, PRO-ED Publishing.

Earobics, by Jan Wasowicz. Cognitive Concepts Inc., 990 Grove Street, Suite 300, Evanston, IL, 60201, (888) 328-8199.

Phonemic Awareness Activities for Early Reading Success, by Wiley Blevins. 1997. Scholastic Professional Books, 555 Broadway, New York, NY. 10012-3999.

Phonemic Awareness in Young Children: A Classroom Curriculum, by M.J. Adams, B. R. Foorman, I. Lundberg & T. Beeler. Irwin Publishing, 325 Humber College Boulevard, Toronto, Ontario, M9W 7C3.

Phonological Awareness: A Resource for Kindergarten and Primary Teachers, by Sheila Walsh. In press. Draft copies available from Newfoundland and Labrador school district Speech-Language Pathologists.

Phonological Awareness Handbook for Kindergarten and Primary Teachers, by Lita Ericson and Moira Fraser Juliebo. 1998. International Reading Association, 800 Barksdale Road, P.O. Box 8139, Newark, Delaware, 19714-8139. www.reading.org

Phonological Awareness Kit (The), by Carolyn Robertson & Wanda Salter. LinguiSystems, Inc. 3100 4th Avenue, East Moline, IL 61244-9700. 1-800-776-4332. www.linguisystems.com

Phonological Awareness Training for Reading, by Joseph Torgesen & Brian Bryant. 1994. PRO-ED Publishing.

Scholastic Phonemic Awareness Kit, by Wiley Blevins. Program Consultants: Louisa Cook Moats and John Shefelbine. 1997. New York, NY. Scholastic Inc.

Sound Foundations, by B. Byrne and R. Fielding-Barnsley. 1991. Artarmon, New South Wales, Australia. Leyden Educational Publishers.

Sound Start: Teaching Phonological Awareness in the Classroom, by Orna Lenchner & Blanche Podhajski. Stern Center for Language, 20 Allen Brook Lane, Williston VT 05495, (800) 544-4863.

Sounds Abound, by Hugh Catts & Tina Vartiainen. LinguiSystems, Inc. 3100 4th Avenue, East Moline, IL 61244-9700. 1-800-776-4332. www.linguisystems.com

Teaching Phonics, Phonemic Awareness, and Word Recognition, by Ashley & Suzanne Bishop. Teacher Created Materials, Inc., 6421 Industry Way, Westminster, CA 92683. www.teachercreated.com.

(Some resources listed at this site: <http://www.auburn.edu/~murraba/prog.htm>)

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