

The Educator's Science of Reading Toolbox

By the National Center on Improving Literacy in Partnership with The Reading League Journal

USING AN INFOGRAPHIC TO LEARN ABOUT THE CRITICAL ROLE OF PHONOLOGICAL AWARENESS

NCIL has a series of infographics that simplify complex ideas related to literacy. Infographics can be useful in learning about a variety of topics since they summarize information in an interesting and visual way. This Educator's Toolbox uses an infographic to explain the critical role that phonological awareness plays in learning to read. You will learn what phonological awareness is, how to effectively teach phonological awareness to prepare early readers, and how this and other NCIL infographics can be used to promote awareness and understanding of evidence-based literacy practices.



The Critical Role of Phonological Awareness

An early skill in learning to read has as much to do with hearing how words sound as it does with seeing how words are written. Early readers must master the skill of being able to hear the sounds in words, in addition to recognizing letters on a page and connecting a sound with the letter. Phonological awareness is a purely auditory task and involves being able to recognize and manipulate the sounds within words. Phonological awareness is a foundation for understanding the alphabetic principle and reading success. However, being able to identify the sounds in words is not as easy as it seems. Many students enter kindergarten already knowing a lot about how the sounds in words map onto letters, but some students do not. For example, students with dyslexia often have more difficulty hearing the sounds in words and mapping them onto letters than other students. For students with dyslexia, high-quality instruction and intervention to develop phonological awareness skills is critical.

Teaching Phonological Awareness

As shown in this infographic, there are several ways to effectively teach phonological awareness to prepare early readers:

1. TEACH STUDENTS TO RECOGNIZE AND MANIPULATE THE SOUNDS OF SPEECH

Teachers should show and teach students how to break down units of speech into smaller units. For example, an excellent instructional sequence that helps students learn to hear the sounds of speech involves progressing from easier activities to those that are more difficult. Teachers can show students how to identify words within sentences, syllables within words, the first and last sounds within words (onset and rime, respectively), and finally, all of the individual sounds in a word (phonemes).

2. TEACH STUDENTS LETTER-SOUND RELATIONS

Teachers should demonstrate and teach students letter-sound relations they will first encounter in print, such as consonants and short vowels.

- Teach these letter-sounds in the context of words where letters represent their most common sound (e.g., teaching “a” in “bat” vs. “was”).
- Next, teach more complex letter-sound relations, such as consonant blends (e.g., “sp”), consonant digraphs (e.g., “sh”), and other predictable but more complex patterns (e.g., vowel digraphs such as “oa” in “boat”; words with long vowels and a silent e, such as in the word, “like”).

A STRONG INSTRUCTIONAL SEQUENCE MIGHT LOOK SOMETHING LIKE THIS:

- The teacher says the name of the letter and introduces the symbol for the letter (show the letter “b”).
- Then, the teacher gives students a picture that represents the sound (e.g., a “bat”) with a brief backstory as an anchor or memory aid.
- Finally, students can practice demonstrating their letter-sound understanding by identifying the sound and writing the letter in various contexts. Good early literacy instruction also provides opportunities for students to review recently taught letter-sound relations over time, so that students can better remember and more fluently identify and produce them.

3. TEACH STUDENTS TO MANIPULATE LETTER-SOUNDS IN PRINT USING WORD-BUILDING ACTIVITIES

Teachers should also encourage students to connect their knowledge of how to manipulate sounds in spoken language with their knowledge of letter-sound relations. Students can be taught to apply their knowledge of sounds to form words in print through an activity that uses letters on tiles or magnets that are easily manipulated to build or change words. After practicing with the teacher, students can work and practice on their own or with a partner, adding and substituting sounds and building harder words, such as those with a silent e. This type of

activity helps students understand how to spell and read words using their awareness of the sounds in language and the letter-sound relations they have been taught.

Infographic from NCIL

This infographic is one of many created by the National Center on Improving Literacy. NCIL's infographics are a great tool to promote understanding and awareness of a variety of topics around evidence-based literacy practices. You can use these infographics in many ways – for example, as part of a professional learning community, to share information at a family literacy night, or to spread awareness about important topics related to literacy.

For more information about evidence-based reading instruction and resources you can use in your classroom, please visit the National Center on Improving Literacy at <https://improvingliteracy.org>.

References

- Baker, S.K., Beattie, T., Nelson, N.J., & Turtura, J. (2018). *How We Learn to Read: The Critical Role of Phonological Awareness*. Washington, DC: U.S. Department of Education, Office of Elementary and Secondary Education, Office of Special Education Programs, National Center on Improving Literacy. Retrieved from <http://improvingliteracy.org>.
- Foorman, B., Beyler, N., Borradaile, K., Coyne, M., Denton, C. A., Dimino, J., Furgeson, J., Hayes, L., Henke, J., Justice, L., Keating, B., Lewis, W., Sattar, S., Streke, A., Wagner, R., & Wissel, S. (2016). *Foundational skills to support reading for understanding in kindergarten through 3rd grade* (NCEE 2016-4008). Washington, DC: National Center for Education Evaluation and Regional Assistance (NCEE), Institute of Education Sciences, U.S. Department of Education. Retrieved from the NCEE website: <http://whatworks.ed.gov>.
- Smith, S.B., Simmons, D.C., & Kame'enui, E.J. (1998). *Phonological awareness: Instructional and curricular basics and implications*. In E.J. Kame'enui & D.C. Simmons (Eds.), *What reading research tells us about children with diverse learning needs: Bases and basics* (pp. 129-140). Mahway, NJ: Lawrence Erlbaum Associates.



The research reported here is funded by a grant to the National Center on Improving Literacy from the Office of Elementary and Secondary Education, in partnership with the Office of Special Education Programs (Award #: H283D210004). The opinions or policies expressed are those of the authors and do not represent views of OESE, OSEP, or the U.S. Department of Education. You should not assume endorsement by the Federal government.

improvingliteracy.org

Facebook: [@improvingliteracy](https://www.facebook.com/improvingliteracy)

How we learn to read: The critical role of phonological awareness

Phonological awareness involves being able to recognize and manipulate the sounds within words. This skill is a foundation for reading success.

Three ways to effectively teach phonological awareness to prepare early readers include:

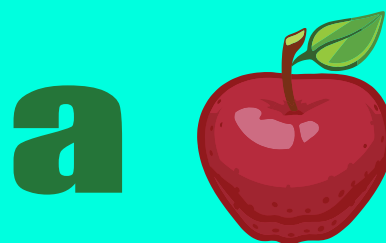
Teach children to recognize and manipulate the sounds of speech.



- Teach children to identify:
 - Individual words in a sentence
 - Syllables within words
 - First and last sounds of words
 - All of the individual sounds within words
- Teach children to manipulate the individual sounds in words to make new words

- Teach the sound of the letter and then introduce the letter symbol for that sound
- Use pictures that represent the target sound
- Have children practice their letter-sound understanding by identifying the sound and writing the letter

Teach children letter-sound relations



Teach children to manipulate letter-sounds in print using word-building activities



- Manipulate letter tiles or magnets to show how to build and change words
- Have children practice spelling and reading words using the letter-sound relations they have been taught