

Chapter 4. Phonics: Breaking the Code to Words

Constance Beecher and Emily Hayden

“There is more treasure in books than in all the pirate’s loot on Treasure Island.” – Walt Disney



Chest of books photo is by [Katrina S from Pixabay](#)

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Iowa Core State Standards (Please check your state standards)

Phonics falls under the foundational standards of literacy.

Iowa Core Standards for Literacy

Phonics and word recognition. RF.K.3 Know and apply grade-level phonics and word analysis skills in decoding words.

- Demonstrate basic knowledge of one-to-one letter-sound correspondences by producing the primary or many of the most frequent sounds for each consonant.
- Associate the long and short sounds with common spellings (graphemes) for the five major vowels.
- Read common high-frequency words by sight (e.g., the, of, to, you, she, my, is, are, do, does).
- Distinguish between similarly spelled words by identifying the sounds of the letters that differ.

RF.1.3 Know and apply grade-level phonics and word analysis skills in decoding words.

- Know the spelling-sound correspondences for common consonant digraphs.
- Decode regularly spelled one-syllable words.
- Know final -e and common vowel team conventions for representing long vowel sounds.
- Use knowledge that every syllable must have a vowel sound to determine the number of syllables in a printed word.
- Decode two-syllable words following basic patterns by breaking the words into syllables.
- Read words with inflectional endings.
- Recognize and read grade-appropriate irregularly spelled words.

RF.2.3 Know and apply grade-level phonics and word analysis skills in decoding words.

Learning Objectives

- Define, understand, and apply phonics concepts and terminology for K-3 learners (InTasc Standard #1)
- Identify effective phonics instructional strategies (InTasc Standard #3)
- Define, understand, and apply phonics strategies for decoding unfamiliar words (InTasc Standard #4).
- Become familiar with Iowa Core Foundation Skills Phonics and Word Recognition

- Distinguish long and short vowels when reading regularly spelled one-syllable words.
- Know spelling-sound correspondences for additional common vowel teams.
- Decode regularly spelled two-syllable words with long vowels.
- Decode words with common prefixes and suffixes.
- Identify words with inconsistent but common spelling-sound correspondences.
- Recognize and read grade-appropriate irregularly spelled words.

RF.3.3 Know and apply grade-level phonics and word analysis skills in decoding words.

- Identify and know the meaning of the most common prefixes and derivational suffixes.
- Decode words with common Latin suffixes.
- Decode multisyllable words.
- Read grade-appropriate irregularly spelled words.

During word-study time in Ms. Hradecká’s first-grade class, you can find three busy homogenous groups. Children are grouped with others who are working on the same level of phonics principles. She follows Bear et al.’s (2008) “*circle-seat-center*” routine (p. 70). While Group 1 is doing a teacher-directed word-study lesson in a *circle*, Group 2 is working on literacy activities in *centers*, and Group 3 is doing word games and activities independently at their *seats*. After 10-15 minutes, the groups rotate. Group 2 joins the teacher, Group 3 moves to the centers, and Group 1 returns to their seats.

For more on the word study lesson in this classroom, see the article, [“Word Study: Learning Word Patterns”](#) by Diane Henry Leipzig on the Reading Rockets website.

What are decoding and phonics?

Decoding

A critical component in word recognition is the ability to decode them. For children to accurately perform this skill, they must understand the alphabetic principle and know letter-sound correspondences. When students make the connection that letters signify the sounds that we say, they are said to understand the purpose of the **alphabetic code**, or the “alphabetic principle.” Letter-sound correspondences are known when students can provide the correct sound for the letters and letter combinations. Students can then be taught to decode, which

means to blend the letter sounds together to read words. **Decoding** is a deliberate act in which readers must “consciously and deliberately apply their knowledge of the mapping system to produce a plausible pronunciation of a word they do not instantly recognize” (Beck & Juel, 1995, p. 9). Once a word has been accurately decoded a few times, it can be recognized without conscious thinking, which is a more efficient kind of word recognition.

Phonics

The instructional practices teachers use to teach students how letters (e.g., i, r, x) and letter clusters (e.g., sh, oa, igh) correspond to the sounds of speech in English is called **phonics** (not to be confused with phonemic awareness). For example, a teacher may provide a phonics lesson on how “p” and “h” combine to make /f/ in “phone,” and “graph.” After all, the alphabet is a code that symbolizes speech sounds, and once students are taught which sound(s) each of the symbols (letters) represents, they can successfully decode written words, or “crack the code.”

Important terms

Phonological awareness ([Chapter 3](#)) is an umbrella term referring to basic knowledge and skills with the sounds of a language. Phonemic awareness is the phonological-awareness skill that focuses on the individual sounds in words. Phonological awareness skills include more than individual sounds. Some examples are:

- Counting the words in a sentence as it is spoken aloud.
- Identifying and creating rhymes.
- Counting the number of syllables in a word.
- Putting compound words together.
- So, phonemic awareness is a phonological-awareness skill, but not the only one.

For a longer summary of the aspects of phonemic awareness and phonological awareness go to this article “Phonics Terms That Every K-2 Teacher Should Know” At [Learning at the Primary Pond](#).

Why decoding and phonics?

In 1997, the U.S. Congress asked the Director of the National Institute of Child Health and Human Development (NICHD), in collaboration with the Secretary of Education, to bring together a national panel of reading experts, now known as the “National Reading Panel.” Their mission was to assess the existing research-based knowledge about the effectiveness of various approaches for teaching children to read. The Panel’s findings were presented in a report entitled *Teaching Children to Read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction*. You can read the entire report [of the National Reading Panel for more details](#).

The Panel reviewed hundreds of research studies. One of the clear findings was that in order to become strong readers children must develop:

- phonemic awareness,
- phonics skills,
- the ability to read words in text in an accurate and fluent manner, and
- the ability to apply comprehension strategies consciously and deliberately as they read.

The Panel found that many difficulties in learning to read were caused by poor phonemic awareness, and that systematic and explicit instruction in phonemic awareness directly improved children’s reading and spelling skills (you learned about phonological and phonemic awareness in Chapter 3).

Learning Activities



An interactive H5P element has been excluded from this version of the text. You can view it online here:

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The evidence for the importance of phonemic awareness is so strong that the Panel recommended that *systematic and explicit instruction in phonemic awareness* should be taught to

all children starting in preschool. Importantly, the Panel found that preschool children could easily learn phonemic awareness when the instruction was presented in an age-appropriate and entertaining manner. It is important to note that the Panel found that children in preschool and early elementary school who had difficulty understanding that the words in oral language are composed of smaller speech sounds that are linked to the letters of the alphabet were highly at risk for reading disabilities. These children often had trouble with tasks like counting the number of syllables in words or finding rhyming words ([Reading Rockets](#)).



Download and keep this [phonics cheat sheet \[DOC\]](#) for reference.

Basic phonics terms

See the link in the call-out box for a comprehensive glossary of phonics terms. Here are some of the big ideas:

Phonemic awareness is about the INDIVIDUAL SOUNDS of words.

A **phoneme** is the smallest unit of sound in spoken language. For example, the word “cat,” can be broken up into the sounds /k/ /a/ and /t/. Each of those 3 sounds is a phoneme, so phonemic awareness = awareness of phonemes (the individual sounds). Some phonemic-awareness skill examples are:

- Hearing the word *top* and saying the beginning sound: /t/.
- Hearing the word *dog* and breaking it up (segmenting) into these three sounds: /d/ /o/ /g/.
- Hearing the word *pan* and substituting the /f/ sound for the /p/ sound to get *fan*.
- This *does not* include linking these sounds to their written form, which is phonics.

Graphemes are written letters that represent one sound. The *m* in *man* is a grapheme. The *ch* in *beach* are also a grapheme.

Morphemes are the smallest parts of a word that have meaning or influences the meaning of a

word. The word *beautiful* has two morphemes (beauty) and (-ful). Adding the suffix -ful) to the word (beauty) changes the meaning of the word, yet the new word is still related to the old one.

Consonants and Vowels

As you know, the English alphabet has 26 letters, which can be divided into two groups: consonants and vowels. The letters are often represented by C or V for consonant or vowel.

In English there are 5 vowels: *a*, *e*, *i*, *o*, and *u*. Vowel sounds are considered LONG VOWELS when the sound matches the name of the letter (e.g. the *a* in *cake*). SHORT VOWELS are harder to define. For example, the short a's in *hat* and *can* could sound different, depending on the speaker. These sounds are also pronounced differently in different parts of the country!

Any alphabet letter that is not a vowel is a CONSONANT.

- [Phonics definitions and glossary A-Z Phonics](#)
- [Phonics Terms That Every K-2 Teacher Should Know](#) from Learning at the Primary Pond

Each school district will most likely have selected curricula which will include phonics instruction, or word-study methods. However, here are some basics on how to teach decoding and phonics.

Teaching decoding and phonics

Explicit and systematic instruction

Research supports instruction that is **explicit** and **systematic**. *Explicit* means that letter-sound relationships, or phonics skills, are taught directly to students (instead of being presented indirectly through reading aloud). *Systematic* means that teachers follow a sequence of skills from simple to more complex, including frequent reviews of those skills.

For more information, read the brief from the International Literacy Association: [Meeting the Challenges of Early Literacy Phonics Instruction \[PDF\]](#).

Phonics strategies

Students need many opportunities to work with words, including letter and word sorts, decoding games, read-alouds and shared reading, and their own reading. Success with phonics is enhanced whenever children can attach meaning to the words they decode, such as during supported comprehension activities like read-alouds and shared stories. The more opportunities children have to encounter and manipulate letter sounds and words, attaching meaning to them, the more pathways they can develop for knowing words.

Word-decoding skill begins with explicit phonics practice. As the video above explained, the 26 letters in the English alphabet make 44 sounds for words. Not all sounds are spelled in the same way, as in the example of the /s/ sound, which can be spelled with one *s* as in *sand*, 2 *s*'s as in *class*, a *c* as the first sound in *circle*, or *ce* as in *face*. It gets even trickier when we start thinking about combinations of consonants, such as *ph*, which makes the /f/ sound in *phone*; or combinations of vowels and consonants, such as *ough*, which can be long *o* in *though*, short *o* in *ought*, or short *u* plus /f/ in *tough*. If you are curious about why we have so many spellings for sounds, you can check out this video: [Why is English Spelling So Weird?](#)

Beginning phonics

Reading standards at each grade level provide a specific sequence for teaching the letter combinations that make up the sounds in words. This is called a “scope and sequence,” and it is the guideline you follow to make sure your instruction is based on the progressive development of skills that addresses the children’s gaps in knowledge.

Here are some examples of scopes and sequences for phonics instruction:

- [Keys to Literacy \[PDF\]](#)
- [Reading Street \[PDF\]](#) (Pearson)
- [New Jersey Department of Education \[PDF\]](#)
- [University of Florida Literacy Institute \[PDF\]](#)
- [Reading Universe \[PDF\]](#) (Barksdale Reading Institute)

Phonics instruction in kindergarten starts with learning letter-sound correspondences for consonants, and for the sounds of short vowels and the most common long vowels.

Lessons will typically include the most common digraphs (*ch*, *sh*, *th*, *wh*, and *ck*). Because

kindergarteners may be losing teeth and still developing articulation, they may not be able to produce these sounds perfectly – but they can still learn them.

Phonics activities can start with basic letter sorts – separating consonants from vowels, for example. Magnetic letters are very useful for this, and are readily available in many schools, but letter tiles or even paper cut-out letters can be used for all of these activities. The point is to provide letters the children can move around, rather than relying on writing alone. Being able to actually move the letters in a concrete way is an important way to establish early learning, before proceeding to the more abstract act of writing (Clay, 2005).

To learn more about when kids learn different consonant sounds, see this [Speech-Sound Development chart \[PDF\]](#).

If purchasing sets of magnetic letters or letter tiles, be sure to examine the ways the letters are formed. If they use stylized letter forms that are different from the fonts in most reading series, they may be confusing for young children. For example, the letter *g* may be written as *g*, or the letter *a* may be written as *a*.

Early sorts for young children

Provide an assortment of letters and a tabletop or surface to sort on. Baking sheets from home can also work. Before teaching, pre-select groups of letters based on what sorts you will ask the children to do. Re-mix the letters between sorts. The following sorts progress from easier to more challenging:

- For children still working on letter recognition, ask them to separate letters with tails, such as *y, g, p*, from letters without tails, such as *c, o, e, s*. Ask them to separate tall letters such as *k, l, t* from short ones such as *c, o, e, s*.
- Separate capital letters from lower-case ones.
- Match capital letters with their lower-case forms.
- Separate consonants from vowels.

In kindergarten, children learn consonant sounds, short-vowel sounds, and the most common long-vowel sounds. Once the children are familiar with these basic sounds, they can begin to build words.

Building words with moveable letters:

Before teaching, pre-select letters based on the words you will ask children to build.

- Guide the children to make the simple word at: (short /a/, consonant /t/).
- Ask them to add a letter to the front of at and guide them to read the new word they have made.
 - Example: “Find the s. Add it to the beginning of at to make a new word. What word did you make?”
- Ask the children to take off the first letter and replace it with a new letter, making a new word.
 - Example: “Now break off the s so you only have the word at again. Find the m. Add it to the beginning of at to make a new word. What word did you make?”
- Continue removing the first letter and replacing it with new letters to make new words like *cat* and *bat*.

In 1st grade students learn the common consonant digraphs *sh*, *ch*, and *th*. The *sh* digraph makes a consistent sound as found in the words *she* and *shoe*. The *ch* digraph can make different sounds, such as in the words *chair*, *character*, and *chef*. The digraph *th* is a little tricky, because in some words it is voiced (the vocal cords are vibrating) and in other words it is unvoiced (like whispering). Try this: Place your first two fingers lightly on your adam’s apple. Say “the.” Notice that your throat vibrates slightly as you make the *th* sound: it is voiced. Now try the same experiment while saying “thumb.” This time there should be less vibration, because the *th* in *thumb* is unvoiced. Try other words containing *th* to see which ones use the voiced *th* and which ones use the unvoiced *th*.

Students in 1st grade also learn common vowel combinations and the sounds they make, such as *ea* as in *team*, *ee* as in *seed*, *oa* as in *boat*, and *ay* as in *play*; and they learn the silent-e pattern as well as the common inflectional endings *-ed*, *-ing*, and the plural *-s*.

2nd and 3rd grade and beyond

When students are in 2nd grade and above, they should be learning to decode multisyllable words. Phonics lessons on decoding longer words should emphasize common syllable-division patterns and point out rules about syllables in English.

To decode long words with multiple syllables, children need a strategy for dividing them into manageable parts. They can then apply their knowledge of syllable types and letter-sound associations, and blend the decoded syllables back into whole words. This is where fluency is important – children need to be able to say these syllables quickly to understand what they are reading.

Learning Activities



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<https://iastate.pressbooks.pub/teachingearlyliteracy/?p=216#h5p-2>

Learning Activities: Assessment

The state of Iowa requires specific testing for literacy. [Required Student Assessment](#).

School districts can choose any approved universal screening instrument, and they will have a set schedule for testing.

It's helpful to do some formative testing (remember that teachers use formative assessments as a quick aid to guide their instruction. Here is the Department of Education (DOE)'s guidance on [Formative Assessment](#).

You can use letter recognition and letter-sound knowledge inventories to document what sounds the children know, and to better place them into groups for instruction. This [example from Macomb Intermediate School District](#) is a quick way to assess children's early phonics knowledge.

Key Takeaways

- In order to become strong readers children must develop phonemic awareness, phonics skills, the ability to read words in text in an accurate and fluent manner, and the ability to apply comprehension strategies consciously and deliberately as they read.
- Research supports phonics instruction that is explicit and systematic. Explicit means that phonics skills are taught directly to students (instead of being presented indirectly through reading aloud). Systematic means that teachers follow a sequence of skills from simple to more complex, including frequent reviews of those skills.

Resources for teacher educators

Games and Activities

- Games are a great way for children to practice phonics. You can even create phonics games to send home. See [this article from Scholastic](#) to start, and you can find many more examples by searching on the internet.
- [The Florida Center for Reading Research](#). A team of researchers and teachers at FCRR collected ideas and created Student Center Activities for use in pre-kindergarten through fifth grade classrooms. The activities are designed for students to practice, demonstrate, and extend their learning of what has already been taught, sometimes with teacher assistance and sometimes independently. Students can complete the activities in small groups, pairs, or individually (description from website).

Word Study Resources

- [Highline Public Schools Kindergarten Word Study Guide](#). OER Commons.
- [Highline Public Schools First Grade Word Study Guide](#). OER Commons.
- [Phonics progression chart from Reading Foundations Progressions](#). Phonics by Liberty Public Schools.
- [Words Their Way resources, presentations, and materials from Dr. Bear](#).
- Parts of the chapter were adapted from [Steps to Success: Crossing the Bridge Between Literacy Research and Practice](#) by Maria S. Murray licensed under a Creative Commons Attribution-NonCommercial-Share Alike 4.0 International License.

Professional Resources

- [Dr. Bear's 2018 presentation on Word Study \[PDF\]](#)
- Common syllable division patterns ([charts at Reading Rockets](#))
- [Sound-spelling pattern chart from Florida Center for Reading Research](#)
- Try this [Quizlet on phonics concepts](#).
 - Password: LitEd3115

- Dr. Gurjar's [Slides on phonics](#).

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