

The Building Blocks of Literacy

Chapter Three

- I. The Mystery of the Spoken and Written English Language
- II. Teaching the Building Blocks of Literacy Through Direct, Explicit, and Systematic Methods
- III. Bringing It All Together—A Research-Based Scope and Sequence

In the last chapter, we examined what students should know and be able to do at each grade level, as well as ways to assess and determine students’ current literacy abilities. In the remaining chapters, we will take an in-depth look at *how* to move your students toward reading and writing proficiency. As you’ll note from the literacy graphic below, reading involves both decoding and comprehending, two processes which are taught separately, yet work interdependently as we read. This chapter contains information about the building blocks of literacy that enable your students to decode, and thus, read independently. You probably remember from the introduction to this text that teaching children to decode is neither intuitive nor easy. This chapter, organized into three parts, explains the science behind effective decoding instruction and gives you the deep understanding necessary to teach your students, from Kindergarten to fifth grade, to read. Given how challenging it is to teach children to read, you might find this chapter to be particularly complex; you will likely want to return to it multiple times before and during the summer institute, and over the course of your teaching career.

Related Readings

Along with this chapter, please read the following excerpt located in the Related Readings section at the end of this text:

- Put Reading First, pp. 7-26

In **Part I**, we will provide you with essential background knowledge about the construction of English speech and print; this information, while highly technical, will help you work more effectively with beginning and struggling readers.

In **Part II**, we will examine the first, and perhaps most crucial, component of literacy: the building blocks that are the underlying processes required for students to decode and read with fluency. We’ll take a look at the foundational reading skills within each building block and discuss the order in which to teach those skills. These building blocks include:

1. Book and print awareness
2. Phonological and phonemic awareness
3. Phonics and the alphabetic principle
4. Word and structural analysis

Decoding				Comprehension					
Book and Print Awareness	Phonological and Phonemic Awareness	Phonics and The Alphabetic Principle	Word and Structural Analysis	Fluency			Background Knowledge	Vocabulary	Comprehension Strategies
				Sight Words	Automaticity	Phrasing			

Additionally, we’ll turn our attention to some of the most effective and efficient research-based methods that you will use to deliver instruction in the building blocks of literacy.

In **Part III**, we will consider a research-based scope and sequence for instruction in the building blocks of literacy, Kindergarten through fifth grade. We’ll discover why certain sounds, letters, and spelling patterns are taught before others and will use our understanding of the spoken and written English language, gained in Part I, to inform our reading.

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You should note that in most districts, you will either have access to or be required to use a structured reading program. This chapter will not replace those programs by any means, but it will complement them. Most reading programs are written by highly skilled educators with extensive knowledge of the English language and of current research. Unfortunately, their teachers' manuals do not explain why the word study activities they require are effective or how they match the linguistic underpinnings of our language. We hope that this chapter will make it easier to see how your manual reflects (and occasionally, may fail to reflect) what is known about how English is constructed and how children learn the building blocks of literacy. This chapter will also show you how to assist students so far below grade level that the word study content of your program's lessons is effectively unintelligible to them.

I. The Mystery of the Spoken and Written English Language

George Bernard Shaw once ridiculed the English language by saying that you could spell *fish* GHOTI, using the *gh* in *rough*, the *o* in *women*, and the *ti* in *caution*. Some suggest that learning most English sound-symbol correspondences is folly, since so many rules that govern its use are often broken and sometimes contradictory. To the contrary, our language has many regular patterns that students can learn to help them be effective and efficient readers and spellers. If both phonological (sound) and morphological (meaning) spelling patterns are accounted for, **less than four percent of English words are "oddities."**²¹

To the novice teacher, however, these patterns are far from clear. Many Teach For America alumni remember with dread the first time they tried to explain why *time* has an *e* at the end or why *lady* is not pronounced /lādeē/ (as in *laddie*). It is because of these types of moments (that happen all too often) in the elementary classroom—when a student has confusion about sound-spelling relationships and the teacher is unable to respond effectively—that we are providing what may at first seem like more background information than you care to know about the English language. Consider the following:

- As a speaker of English, there is little need to know specific details of how to articulate various sounds.
- As a writer of English, you may occasionally refer to spelling conventions (such as “*i* before *e*, except after *c*”) but probably generally rely upon memory and constant repetition to cue spelling patterns.
- However, as teachers of spoken and written English, **our general knowledge of English will not suffice. To be precise in our assistance of students, we must have real knowledge of the construction of English speech and print.**

This section provides this critical background knowledge. In this section, we will demystify the spoken and written English Language for you so that you will have the expertise to appropriately diagnose any student's reading, spelling, or speaking error and provide appropriate corrective feedback. You will learn the **phonetics** (the oral articulation) of our phonemes (speech sounds) and the **alphabetic principle** (the connection between the sounds and letters in English).

²¹ Moats cites research by Hanna that 50% of English vocabulary could be spelled by a computer relying solely on sound-symbol correspondences, 36% spelled with only one error, and 10% more spelled correctly when accounting for morphology and etymology. (Moats, Louisa Cook. *Speech to Print: Language Essentials for Teachers*. Baltimore, MD: Paul H. Brookes Publishing Co., 2000, p. 97.)

Phonetics

In this section, we will consider some basic information about phonetics, the study of how speech sounds are produced.

It may surprise you that information about sound production is included in our literacy curriculum, since it may not seem to have an obvious connection to literacy. However, a characteristic of both beginning and struggling readers is that they often fail to hear and pronounce specific phonemes correctly. As a beginning or remedial reading teacher, you will need to help individual students overcome their difficulties in hearing the phonemes or help correct their pronunciation. Once you know the precise method of articulating these sounds, you will be able to provide explicit corrective feedback to improve students' phonological awareness and phoneme production.

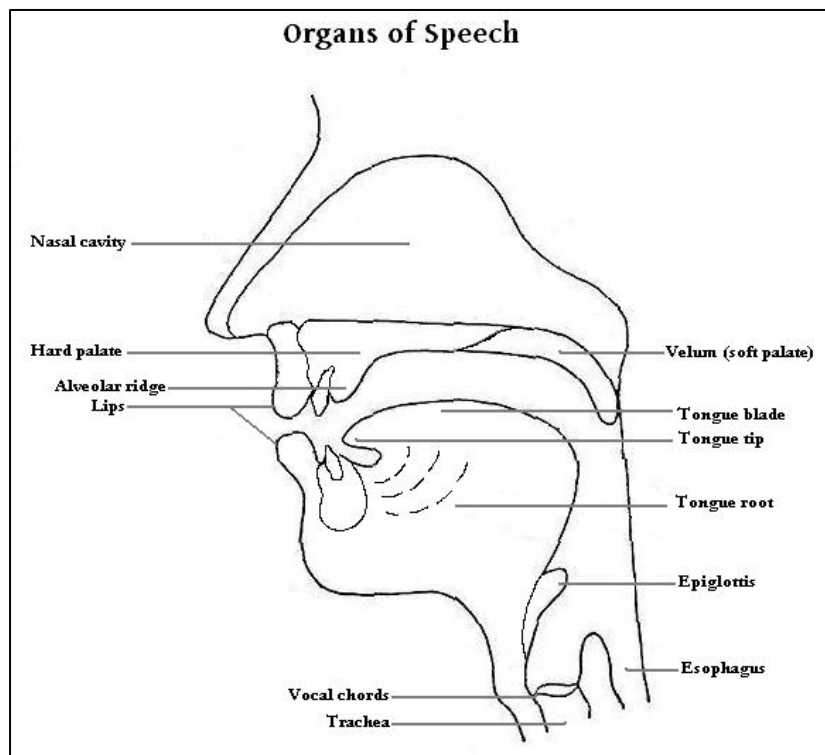
Throughout this section, we use linguistic terminology to describe the action of the speech organs, such as the tongue. This provides a common, specific language for us to discuss phonemes with your colleagues. However, use of this language will not provide any material benefit to your students. It is probably not very helpful to remind students to "make sure you articulate your unvoiced velar stop with the raising of the tongue on the velum instead of the hard palate!" For that reason, we will include simple language to use with your students, and notes for focusing your attention on students' production of sounds.

To understand phonetics, it is necessary to learn a little about anatomy. Effectively, speech production is about exhaling air. We inhale by lowering the diaphragm, a muscle group under the stomach. To speak, we raise the diaphragm and exhale slowly. We can pronounce most phonemes only when we exhale. (Try inhaling and reading this sentence aloud.)

When we exhale, the air is affected by several organs, shown in the diagram "Organs of Speech." When the air leaves the trachea, it passes through the **vocal chords**, two muscle strips in a sort of an oval. The round space between them is known as the glottis. When we constrict the vocal chords and pass air over them, we create **voiced** sounds. Not all sounds in English are voiced, so the vocal chords are not always used. (To sense this contrast, place your fingers to your throat and pronounce /f/. This sound is unvoiced. Repeat this process with /v/. This is a voiced sound. Can you feel the difference?)

Understanding Phonetics: Some Tips

As you read the Phonetics section, we suggest you try out the phonetic distinctions we identify. You may wish to watch your mouth in a mirror as you pronounce sounds, especially to see the articulation of phonemes that are difficult to feel. You will learn the linguistic terminology and phonetic concepts more readily if you practice the articulation of these sounds and discuss the material with other corps members using the technical terms. Throughout this section, we will provide many examples to help you better understand what happens when you speak.



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The air then enters the mouth, or sometimes the nasal cavity. Here, the tongue, palate (the roof of your mouth), teeth, lips, and jaw are critical parts. The tongue touches different parts of the palate to create different sounds. The bump of tissue behind the front teeth is called the *alveolar ridge* and behind that is the *hard palate*. Further back in the mouth is the soft palate, or *velum*. You can feel the difference between the hard palate and velum with your tongue.

Classroom Connection

Understanding how our mouths work as we pronounce sounds helps us to listen and watch our students more critically. In a room of children reading chorally, it's easy to spot those who cannot decode or articulate by the formation of their mouths.

In addition to thinking about which organs of speech are used in the production of various sounds, we also must consider another way that sounds are classified. This classification is very familiar to you—in fact, you have likely used these two categories for much of your life. We all know that English is comprised of **consonants and vowels**, but many of us may be unaware that this classification has nothing to do with the letter symbols per se, but instead what our speech organs do to produce the sound. Specifically, consonants are defined as those sounds where the air is blocked or constricted in some way, while vowels are those phonemes where the air is much less constricted. (Pronounce /b/ and /ē/, as in *beet*, and consider what happens to your airflow. When you articulate the consonant the air stream is blocked, but when you pronounce the vowel, it is not obstructed.) Let's begin by taking a closer look at the consonants.

Understanding the Consonants

English has 25 consonants that are separated into two broad types according to how the speech organs are used in their production; these categories are the **pairs** and the **groups**.²² Within each broad category (pairs and groups) several subcategories exist and are determined by what happens to your airflow as you produce the sound. The tables that follow describe the articulation of all the consonant phonemes in detail. For each phoneme, we will provide both its linguistic and simple name, describe how it is produced, and give example words to help you hear and feel these sounds as you produce them.

The Pairs of consonants are two consonants that are produced the same way, except that one is voiced and the other is not. Some of these are **stop pairs**, meaning that the production of the sound completely stops the flow of air through the mouth at some point.

Stop Pair	Linguistic Name	Description of Production	Simple Name ²³	Example Words
/p/ and /b/	bilabial stop	The lips are popped open with a puff of air. (Since this requires both lips, it's <i>bilabial</i> .)	lip popper	<i>pin, bin</i>
/t/ and /d/	alveolar stop	The tongue is tapped against the alveolar ridge.	tongue tapper	<i>tock, dock</i>
/k/ and /g/	velar stop	The tongue is pushed against the velum (soft palate) and released.	tongue scraper	<i>cold, gold</i>

The **fricative pairs**, as you may have guessed from their name, involve friction. Whereas the stop pairs require complete blockage of airflow, the fricatives only require that the air be substantially constricted. These can be pronounced continuously.

²² The pair and group terms come from Lindamood, P. & Lindamood. *The Lindamood-Bell Phoneme Sequencing Program for Reading, Spelling, and Speech: Teacher's Manual for the Classroom Clinic*. Austin, TX: Pro-Ed, 1998.

²³ These "simple names" also come from *The Lindamood-Bell Phoneme Sequencing (LiPS) Program*, designed to teach phonological and phonemic awareness and phonics to students with auditory processing difficulties using carefully focused, explicit activities. Information about LiPS materials and training is available at www.lindamoodbell.com.

Fricative Pair	Linguistic Name	Description of Production	Simple Name	Example Words
/f/ and /v/	labiodental fricative	The top teeth are placed on the bottom lip as you blow a stream of air. (Hence the name: “labio” for lip and “dental” for teeth.)	lip cooler ²⁴	<i>fan, van</i>
/th/ and / <u>th</u> / ²⁵	interdental fricative	The top teeth are rested on the tongue as you blow a stream of air.	tongue cooler	<i>cloth, clothe</i>
/s/ and /z/	alveolar fricative	The tongue is placed close to the alveolar ridge as you blow a stream of air. The lips are typically pushed out into a thin smile, although this is not necessary.	skinny air	<i>grace, graze</i>
/sh/ and /z <u>h</u> / ²⁶	alveopalatal fricative	The tongue is placed near the hard palate (roof of the mouth) behind the alveolar ridge while a stream of air is blown. The lips are typically pushed into a large circle, although this is not necessary.	fat air	<i>assure, azure</i>

There is only one **affricative pair**. This sound is produced when a stop is followed by a fricative sound.

Affricative Pair	Linguistic Name	Description of Production	Simple Name	Example Words
/ch/ and /j/	alveopalatal affricate	The air stream is stopped completely by placing the tongue behind the alveolar ridge. Then, the air is released with friction.	fat air pushed	<i>batch, badge</i>

While the technical language may be intimidating, pause here and force yourself to practice and feel the difference in your mouth. Try saying the /f/ in *fan*—can you feel your teeth against your lips, and the air continuing to stream out? That makes it a labiodental fricative, and your mouth works very differently to pronounce it than to produce the /p/ in *pan*. You’ll notice that the /p/ sound requires you to use both lips and involves a burst (rather than a continuous flow), so it’s a bilabial stop. Try using these terms to impress your friends and family the next chance you get.

The Groups of phonemes cannot be as easily distinguished as the pairs, but there is a clear logic to their grouping. The **nasals** include consonant phonemes that are produced by exhaling all of the air through your nose. All of the nasal sounds are voiced; you can feel the vibration of the vocal chords through the nose if you hold a finger beside your nose.

²⁴ Lindamood-Bell refers to this as a lip cooler because, if you wet the bottom lip, and pronounce /f/ or /v/, you feel cool air on your lip.

²⁵ /th/ and /th/ is the only pair of sounds represented by the same grapheme (*th*). In the remainder of this document, we will underline the voiced phoneme. Feel the difference by comparing the sounds at the end of *bath* and *bathe*.

²⁶ /zh/ is the only consonant phoneme that does not have its own grapheme, though we do hear it in a few English words, such as *vision* and *azure*.

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Nasal Phoneme	Linguistic Name	Description of Production	Simple Name	Example Word
/m/	front nasal	The lips create the air blockage, making a resonance chamber out of the entire mouth cavity.	front nose sound	<i>Rum</i>
/n/	middle nasal	The tongue blocks the air behind the teeth, right on the alveolar ridge, roughly in the same location as for /t/ and /d/.	middle nose sound	<i>Run</i>
/ng/ ²⁷	back nasal	The tongue is raised or pushed back onto the velum to block the air.	back nose sound	<i>Rung</i>

Want to be convinced that the air is coming through your nose? Try saying “mmm...” and plugging your nose at the same time.

The **glides** differ from all the above consonants in that they do not really obstruct the airflow in their production. In this sense, the glides have vowel-like qualities. The first three phonemes below are referred to as “wind sounds” because of the puff of air articulated for them.

Glide Phoneme	Linguistic Name	Description of Production	Simple Name	Example
/w/	bilabial (velarized) glide	The blade of the tongue arches toward the velum. The lips round as the sound is produced. It is voiced.	wind sound	<i>witch, wet</i>
/h/	glottal	The glottis (space between the vocal chords) is constricted to release only a thin puff of air. It is unvoiced.	wind sound	<i>hitch, hen</i>
/wh/	bilabial (velarized) glide	The blade of the tongue arches toward the velum. The lips round as the sound is produced. It is unvoiced.	wind sound	<i>which</i>
/y/	palatal glide	The tongue is pushed toward the palate as this sound is produced. It is voiced.	none	<i>yet, yen</i>

The **liquids** are “the most problematic speech sounds for English articulation, reading, and spelling...These are among the later developing sounds in the speech production of many children and the most difficult to teach in speech therapy because they ‘float’ in the mouth. The liquids have no clear beginning or end point in articulation.”²⁸ The sound is “smooth and flows easily.”²⁹ In English, /r/ is a particularly challenging phoneme. Its method of articulation differs widely depending on dialect and the location of the phoneme in a word. Because /r/ is similar to a vowel but has consonant characteristics, it is easily confused with other sounds. For example, some students replace /r/ with /w/. Try saying *rich* and *witch*. You will notice that the mouth formation is nearly identical; this makes it difficult to distinguish them.³⁰

²⁷ /ng/ is a single phoneme. It is not comprised of the phonemes /n/ and /g/ combined. The letters *n* and *g* are used to represent the phoneme because English has no individual letter to symbolize the velar nasal.

²⁸ Moats, Louisa Cook. *Speech to Print: Language Essentials for Teachers*. Baltimore, MD: Paul H. Brookes Publishing Co., 2000, p. 31.

²⁹ Akmajian, Adrian et al. *Linguistics: An Introduction to Language and Communication*. Cambridge, MA: The MIT Press, 2001, p. 78.

³⁰ Students who confuse the /r/ sound with /w/ and other phonemes may have speech delays or disorders that cannot be remediated in the classroom. If you are concerned, discuss the problem with your special education resource teacher who will often be able to provide detailed advice.

Liquid Phoneme	Linguistic Name	Description of Production	Simple Name	Example
/l/	alveolar liquid	The blade of the tongue is raised toward the palate. The tip of the tongue touches the alveolar ridge.	front lifter	<i>led</i>
/r/	see below	The tongue is curled or bunched up behind the alveolar ridge. The lips are usually rounded.	back lifter ³¹	<i>red</i>

To review briefly, remember that the consonant sounds are separated into two categories. The **pairs** include sounds that are produced exactly the same way, except that one is voiced and the other is unvoiced. To feel the difference between voiced and unvoiced sounds, put your fingers against your vocal chords and say /b/ and /p/. You should feel the vibration for /b/ but not /p/. For a quick reminder, see the **Elementary Literacy Toolkit** (p. 17: “Voiced and Unvoiced Consonants”); this Toolkit can be found online at the Resource Exchange on TFANet. ✂

- In the production of **stop pairs** (/b/ and /p/), the flow of air through the mouth stops.
- In the production of **fricative pairs** (/f/ and /v/) the airflow is constricted but continuous.
- The **affricative pair** (/ch/ and /j/) combines a stop with a fricative sound.

The **groups** are less easy to distinguish.

- **Nasal** phonemes (such as /m/) are produced when air is exhaled through the nose continuously.
- **Glides** (/w/) are unique consonants in that the consonant phoneme glides immediately into a vowel sound.
- **Liquid** phonemes (/l/ and /r/) are the most challenging consonants of all because there are both a lot of ways to move your tongue to articulate these sounds correctly and a lot of ways to move your tongue that result in incorrect pronunciation of these sounds.

Classroom Connection

Now that you know which consonant sounds are likely to be confused, you can be on the lookout for students who struggle to hear or articulate them. Help students to “feel” how sounds are different by thinking about the different speech organs that are used to make each one. Junie B. Jones, the beloved character from Barbara Park’s series for beginning readers, calls Valentine’s Day, “Valentimes Day” throughout her Kindergarten year. Perhaps Junie B.’s teacher should ask her to place her tongue behind her teeth to pronounce this holiday correctly.

When consonant phonemes are adjacent to one another within a syllable,³² the individual sounds are spoken together as **consonant blends** (two phonemes) or **consonant clusters** (three phonemes). The word *drive* has the consonant blend /dr/ at its beginning, while *lengths* ends with the consonant cluster /ngths/.

Not all consonants will blend together when they are adjacent because the rules of English phonology prevent this from happening. For example, /mt/ is not a blend, while /mp/ is. This is because /m/ and /p/ both use the lips in their production, while /t/ involves the tongue tapping the alveolar ridge. It is too difficult for the mouth to transition from /m/ to /t/, so we never use this combination. For a list of the most common consonant blends and clusters, refer again to the **Elementary Literacy Toolkit** (p. 18: “Consonant Blends and Clusters”). ✂

Implications for Instruction of the Consonants

Now that we have examined how the sounds of individual consonants, blends, and clusters are articulated, we will consider the implications this knowledge has for classroom instruction. Once you begin teaching,

³¹ The names “front lifter” and “back lifter” refer to the position of the tongue in speech production. Try saying /l/ and /r/ in sequence. In both cases, the tongue is clearly “lifted.” You may also notice that the tongue slides backwards to produce /r/.

³² A syllable has one, and only one, vowel sound.

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you can refer to this section to get ideas about developing better articulation in your students, or to help identify the cause of students' reading, writing, and speaking errors that are not immediately explicable. Though we will explain particular articulation problems and describe several solutions, we will not explain when and how to teach consonants, as that will be the subject of Parts II and III.

As a teacher of beginning and/or struggling readers, you must help students learn and remember sounds by describing and drawing attention to what is happening in their mouths when they produce phonemes. Here are some suggestions for teaching new sounds or improving articulation:

- **Describe the articulation.** Draw attention to the location and use of the lips, the tongue, the teeth, and the jaw—whichever are relevant to the production of a particular sound. Use the descriptions above to help you.
- **Help students to feel the sounds.** Tell students to pay attention to what they feel in their mouths and their throats. To explain voicing, have students contrast /f/ and /v/. Have students feel the side of the nose to identify nasals. Have students place their hands in front of their mouths to feel the quality of the air. For example, /s/ will bring a stream of air, /j/ a puff.
- **Use your hands to demonstrate.** Curve your fingertips to simulate teeth and show student the side, such that your hand simulates the profile of the mouth. Use the other hand to be the teeth. You can demonstrate the /t/ by tapping your “tongue” fingers behind the “teeth” fingers.
- **Examine the mouth.** You can draw students' attention to the action of your own mouth. You can also provide them with mirrors and allow them to see for themselves how their mouths are working. (Use of mirrors is not necessary for most students and works best in small groups. It is not advisable as part of whole-group instruction.)

Even with guidance on how to pronounce sounds, some students may still confuse some of the consonant phonemes. If you are aware of some of the most common areas of confusion, you will be better prepared to identify the cause of student error and provide the necessary corrective feedback. For more information on correcting student errors, see the **Elementary Literacy Toolkit** (pp. 19-20: “Identifying and Correcting Errors in Students' Sound Production”); this Toolkit can be found online at the Resource Exchange on TFANet. ✖

For English Learners, one major challenge is that some English sounds do not appear in their first language. For example, for students whose first language is Spanish, the differences between /sh/ and /ch/ present difficulty because /sh/ is not a Spanish phoneme. To assist these students, show them the proper articulation of the different sounds. Demonstrate the use of the diaphragm in /ch/ to create a puff of air (have students feel this by placing their hands in front of their mouths) and contrast this with the stream of air produced for /sh/. To compare elements of English with several other languages, see the online **Elementary Literacy Toolkit** (p. 21: “Contrastive Analysis Chart”). ✖

Although it is important and helpful to teach students learning English proper articulation of sounds, it is not necessary to highlight all student errors that might be associated with learning English. For example, beginning English learners tend to pronounce an *s* at the beginning of a word as /es/. (They might say /estop/ instead of /stop/.) While it is useful to bring this to students' attention, do not dwell on this point. As long as the addition of the /e/ phoneme does not impede communication, it is not a major concern. After all, the primary purpose of literacy instruction is to make students good readers. If their speech does not impede this goal, it is usually unnecessary to change it.

Even some native speakers of English do not pronounce consonants according to the descriptions above. For example, speakers in New England tend to eliminate the pronunciation of /r/ following a vowel (so /car/ sounds like /cah/). If a student consistently pronounces some consonants in a way that differs somewhat from your own pronunciation, you need to judge whether or not the child is following a dialectical pattern or has a speech difficulty. In cases like the example above, it is not necessary to attempt to change the child's pronunciation, though it is important to model and draw attention to the correct articulation of sounds.

In this section, we have considered how consonant sounds are produced, a few of the difficulties that some beginning and struggling readers have in articulating those sounds, and the ways in which we can draw students' attention to specific mouth movements to help them overcome those struggles. We will now shift our focus to the vowel phonemes and follow a similar pattern in investigating their production and the articulation challenges that they pose to students.

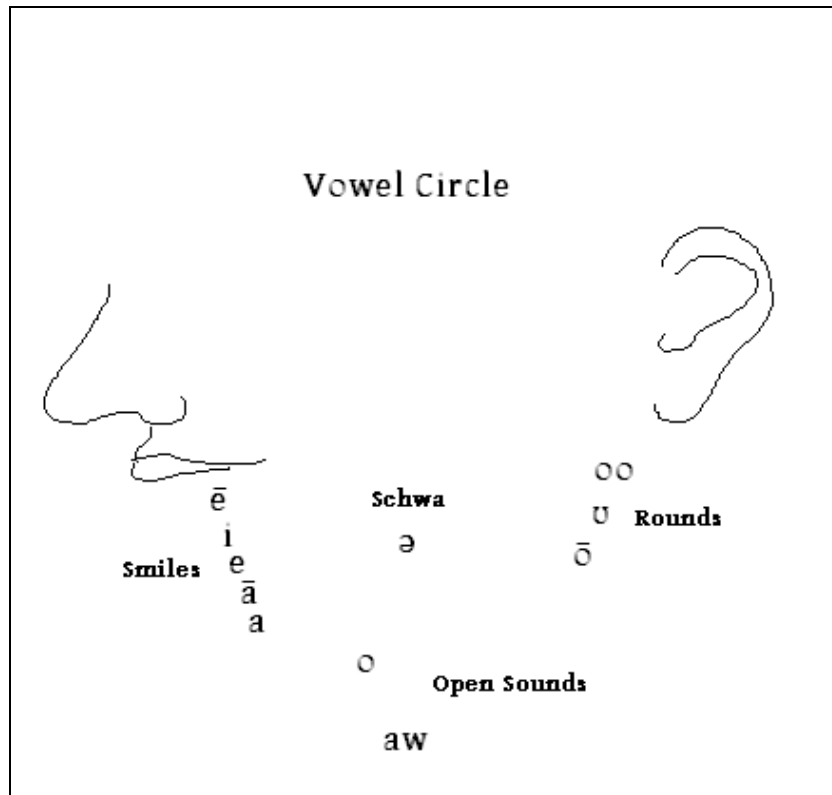
Understanding the Vowels

As was stated earlier, vowels are open sounds, meaning that the airflow is never completely obstructed by the tongue when pronouncing these sounds. While the air channel widens and narrows, producing the range of possible vowels, the tongue never touches the palate. Although the consonant fricatives, like the vowels, never completely obstruct the air, they compress it and redirect it to create sound. The vowels merely adjust the width of the air channel to make different sounds.

The vowels are harder to learn than most of the consonants because they are harder to define in terms of the movement of the tongue, lips, and teeth. The distinctions between many vowels are very fine, making it difficult for students to distinguish them. The definition of each vowel requires careful attention to the location of the tongue, the jaw, and the lips. To help understand these phonemes, consider the **vowel circle** pictured here.

In this graphic, you see the vowels in four groups: the **smiles** (the /ē/ in *peak*), **open** sounds (the /aw/ in *saw*), **rounds** (the /ō/ in *ropel*), and **schwa** (the /uh/ in *attend*). Their placement in the graphic corresponds to the location of the tongue and the shape of the lips when articulating each sound.

Let's consider first the location of the tongue during vowel production. In pronouncing /ē/ as in *meet*, the tongue is raised so that it nearly touches the hard palate. The /aw/ sound in *hawk* is located lowest on the graphic because the tongue (with the jaw) is lowered significantly to produce this sound. So, we show the /aw/ sound at the bottom of the circle to indicate that the tongue is far from the hard palate.



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To investigate how your tongue, jaw, and lips move when you pronounce different vowel phonemes, try the following exercises. Place your hand under your chin and pronounce the vowels on the left side. They are the vowels heard in the words *beet*, *bit*, *bet*, *bake*, and *bat*. You will probably notice that your chin continues to fall with each vowel you pronounce.

Now, pronounce /o/ (the vowel in *pot*) and /aw/ (the vowel in *law*). If you have trouble feeling a difference, note that the /o/ is similar to the sound made when doctors ask patients to “open up and say /o/.”

In addition to your jaw moving as you produce each vowel sound, your tongue and lips adjust as well. With the seven vowels on the left, the tongue is generally forward, that is flattened out under the hard palate. With the three vowels on the right, the tongue is pushed into the back of the mouth. For example, the long /oo/ sound (as in *cool*) is produced by raising the tongue and pushing it to the back of the mouth. The /ō/ sound (as in *wrote*) still requires the tongue be pushed to the back of the mouth, but it is lowered away from the velum.

Classroom Connection

The schwa sound, which sounds like /uh/, can cause a great deal of confusion for students attempting to decode multi-syllable words. We teach students attempting to read multi-syllable words that any unstressed vowel can represent the schwa sound. Once they know this, decoding these complex words becomes easier.

The vowels are also grouped into three broad categories according to the shape of the lips in their production. Generally, the lips spread into a smile to pronounce the first five vowels on the left of the graphic. The lips are fairly wide open and oval-shaped when pronouncing /o/ and /aw/. In fact, no other vowel sounds require a more open mouth. The lips make a smaller circular shape when producing the three back vowels. While it is not absolutely necessary to shape the lips according to the three categories, it is generally the case.

Notice that the schwa sound, identified by the upside down and backward *e*, is between all of the sounds. This is because the tongue is in the middle of the mouth when pronouncing this sound. The schwa sound is the unstressed vowel sound that we often hear in multi-syllable words.³³ For example, in the word *lesson*, the *o* makes the schwa sound /uh/. Other words that contain this sound include *about*, *elect*, and *nation*.

You may notice that the vowel circle does not include several sounds, such as the /ow/ in *mouse*. This is one of the English **diphthongs**. Diphthongs are sounds produced when the mouth moves from one formation to another within a single syllable. If you say /ow/ slowly, you will notice your mouth begins open, like the /o/ sound, and clearly and rapidly moves to end in another shape, a circle. This makes /ow/ a diphthong. The diphthongs are:

Sound	Example Word	Mouth Movement
/ɪ/	write	Open to Smile
/ɪ̯/	cute	Smile to Round
/ow/	brown	Open to Round
/oi/	coin	Round to Smile

If we combine the vowel phonemes on the vowel circle with the diphthongs, there are only fifteen vowels in English. However, they remain challenging for learners to distinguish and are made more difficult because English has so many spellings for each vowel. For the /ō/ phoneme alone, there are five fairly common spellings!

As you learned in the consonants section above, the liquid /r/ presents a significant challenge because of its vowel-like qualities. It creates even more confusion when it follows vowels. When /r/ follows the letters *e*, *i*, and *u*, the grapheme makes the sound /er/ as in *mother*. /er/ is not the same as /e/ and /r/

³³ Beers, Kylene. *When Kids Can't Read: What Teachers Can Do*. Portsmouth, NH: Heinemann, 2003, p. 239.

fused together but is its own phoneme because the two sounds blend together. The *er*, *ir*, and *ur* spellings of /er/ are essentially arbitrary since there is really only one sound. English has two other r-controlled vowels, /or/ (as in *more*) and /ar/ (as in *far*). Because /r/ has “taken over” the vowel, these are referred to as **r-controlled vowels**.

Classroom Connection

Sometimes, teachers refer to the r-controlled vowels as “bossy Rs” because the /r/ is “telling the vowel to change its sound.” This is a useful mnemonic.

To review the distinguishing characteristics of the vowel phonemes, take another look at the vowel circle and remember that these sounds are sorted into four broad groups—**smiles, open, rounds, and schwa**—because of the movement of the tongue (in the front, middle, or back of the mouth) and the shape of the lips (spread into a smile, open in an oval shape, or small and rounded) during production of the sound. Some vowel sounds do not fit neatly into the categories represented on the vowel circle. The **diphthongs** are vowel sounds (/ī/, /ū/, /ow/ and /oi/) that involve the mouth moving from one shape to another. Finally, when the consonant *r* follows a vowel, that vowel becomes **r-controlled** and makes the /er/ sound, regardless of its spelling.

Implications for Instruction of the Vowels

As you have seen, vowels are complex sounds that are easily confused or forgotten by students. It is likely that you will spend more time correcting students’ errors with vowels than with consonants. This section gives you further information about the other features of vowels that will be important in teaching and correcting students.

Long and Short Vowels: By convention, vowels have been separated into two broad categories in elementary school instruction: the long vowels and the short vowels. You will hear the long vowels (/ā, ē, ī, ō, ū/) as you say the words *make*, *meek*, *might*, *moat*, and *mute*. The short vowels (/ă, ě, ĭ, ǒ, ŭ/) are heard in *mat*, *met*, *mitt*, *mop*, and *mutt*. While these distinctions retain a kernel of meaning (the long vowels are generally articulated for a slightly longer duration than the short vowels), you would be hard pressed to find many who can readily distinguish the length of these distinctions, only measurable in milliseconds. As a result, this distinction between the long and short vowels is effectively meaningless.

However, this does not mean you should eliminate or replace this language in your instruction. There are several reasons for this. First, the short vowels are similar in that they all require only one letter to spell the phoneme and that there are very few spellings for each short vowel.³⁴ Second, the long vowels are similar in that they all “say the name” of the letter they represent.³⁵ (Say *hope* and listen to the *o* say its letter name.) Third, the long and short monikers are deeply ingrained in school and teacher culture and, thus, student consciousness. There is no compelling reason to eliminate the use of the labels, since they can function as useful terms for categories of sounds that students will encounter thousands of times throughout school. It serves them well if you continue to use terms they already know and send them to the next grade with this knowledge, to teachers who will likely use these labels as well.

Identifying and Correcting Articulation of the Vowels: As with the consonants, the linguistic concepts presented here are useful as you help your students properly articulate sounds. For beginning readers and those students who do have difficulty articulating their vowels, several tips are helpful.

³⁴ For these reasons, the short vowels are typically taught first in most phonics programs.

³⁵ This is a broad generalization we will explore in greater detail in discussing phonics rules and patterns.

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- Refer to the action of the lips and the lowering of the tongue (or, more visibly, the jaw) to help students learn the distinctions between the vowels.
- Have students contrast vowels that are very different to help them see the proper mouth formation for a particular vowel. /ē/ as in *meet*, /aw/ as in *law*, and long /oo/ as in *tooth* are the most distinctive vowels. Contrasting other vowels with these is helpful.
- Have students pronounce the vowels in groups, according to the vowel circle. The LiPS program relies on the three distinctions of lip formation: smile, open, and round, to help students categorize the sounds.³⁶ You might also try the following with students who need more support than your reading program can provide (this should be a very small minority of students). Print all of the sounds with their most common letters on cards, pronounce them for the student, and have the student sort the cards according to mouth formation. Students can use the memory of the categories to remember the articulation of some of the sounds. This alone will not remedy the problem, but combining this with some of the other suggestions here may produce proper pronunciation.
- As with the consonants, using a mirror to see proper articulation can be very helpful.

Classroom Connection

Because we can spell our short vowel sounds with only one letter, we teach these sounds to beginning readers first. The complex patterns that represent our long vowel sounds are taught after students have the simple short vowel sounds under their belts.

Vowels for English Language Learners: Research shows that learning vowels is especially challenging for English Language Learners. You will certainly teach these students phonics, but it will probably also be necessary for you to explicitly explain the pronunciation of some of the vowels that are not present in the learner's heritage language or which differ somewhat in pronunciation. In Spanish, for example, there are only five vowel sounds as compared with more than fifteen in English, making the articulation of some English vowels very challenging for these students. Use the same techniques you would use with other students struggling with pronunciation. Refer to the **Elementary Literacy Toolkit** (p. 21: "Contrastive Analysis Chart") to know which vowels are likely to require the most explanation for the students you are teaching; this Toolkit can be found online at the Resource Exchange on TFANet. ✖

Classroom Connection

Teachers of English Language Learners need this linguistic background knowledge because it helps us to structure our phonemic awareness instruction. If we know that Spanish has far fewer vowel sounds than English, we can anticipate that our ELL students will need more explicit instruction and guidance in hearing and articulating the slight distinctions that separate the many English vowel sounds from each other.

Word Length: The length of a word and the number of syllables makes it easier or more difficult to pronounce. All of the words listed in the chart below are one-syllable words, but they become more difficult to say as the number of consonants grows and blends or clusters are used. The simple syllables contain neither blends nor clusters; the complex syllable is defined by the presence of a blend or a cluster. The notation for syllable patterns uses *v* to indicate a vowel sound and *c* to indicate a consonant.

³⁶ www.lindamoodbell.com, accessed 7/10/2010.

Syllable Pattern	Simple or Complex?	Examples
vc	simple	/it, an, thō/
cv	simple	/hē, mī, thā/
cvc	simple	/ship, bēt, kōn/
ccv	complex	/thrō, bloo/
vcc	complex	/its, aft/
ccvc	complex	/truk, fling/
cvcc	complex	/camp, bunt/
ccvcc	complex	/shrēks, smasht/
cccvc	complex	/skwish/
cvccc	complex	/fenst/
cccvc	complex	/splits/
ccvccc	complex	/flangks/
cccvc	complex	/strengths/

It can be very difficult to pronounce highly complex one-syllable words. Words with multiple syllables that are simple may be easier to say than words with one syllable that have many sounds. For example, the two-syllable word *maker* has only four spoken sounds, whereas the one-syllable word *scrimps* has seven. For most students, *maker* will be easier to say than *scrimps*.

The Alphabetic Principle

English phonetics is complex, but no more complex than the phonetics of other languages. Unfortunately, the alphabetic principle (the connection between alphabet letters and Sounds) in English is more complex than the phonics systems of many other languages.

Why is this so? Invasions of England had a profound effect on the development of the English language. Briefly, it happened this way. The Celts lived in England and were invaded by Germanic tribes, who brought with them a West German language. These conquering tribes assimilated some Celtic words and the Latin script (our 26 Roman letters) into their language, giving birth to what is known as Anglo-Saxon, or Old English. The Anglo-Saxon language was very simple; it contained very functional words (those for animals, work, and numbers, for instance) and included most of our high-frequency words, such as *to*, *the*, *you*, and *would*.³⁷ Further, the Anglo-Saxon language provided us with most of our consonant and vowel sound-symbol correspondences.³⁸

Later, the Norman Conquest of England brought with it the language of nobles, and the result was the assimilation of many French words into English. Those words typically retained their French spellings, creating words like *glorious* and *situation*, the spelling of which does not match the conventions of English phonics. Finally, during the Renaissance, an interest in classical Roman and Greek culture, art, and literature helped to assimilate some Greek words (those still used in science, mathematics, and philosophy).³⁹

Classroom Connection

Rather than moving lockstep through the alphabet, teaching all the ways to spell each sound, we are strategic about when we introduce particular spellings. By teaching the most commonly used spellings first, we expand the number of words that our beginning readers can decode and read independently.

³⁷ Moats, Louisa Cook. *Speech to Print: Language Essentials for Teachers*. Baltimore, MD: Paul H. Brookes Publishing Co., 2000, p. 85.

³⁸ Ibid.

³⁹ Ibid p. 89.

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English has 25 consonant sounds and 18 vowel sounds, if you count all of the r-controlled vowels and diphthongs separately, for a total of 43 phonemes. Obviously, our 26 individual alphabetic letters are not enough to spell these phonemes, so we combine letters to represent some consonant sounds and many vowel sounds. Because English has layers of language from so many places, there are more than 250 spellings, known as graphemes, for these phonemes.⁴⁰ A grapheme is a letter (or letters) that spells a sound. For example, the most common grapheme for /ch/ is *ch* while one grapheme for /i/ is *igh* as in *high*. Some graphemes are common and used frequently but others, like *ough* are much less common. Some graphemes like *ough*, represent many phonemes, as you may remember from the poem in the introduction to this book; think of *dough* versus *through*.

Given the broad range of letters that are used to spell our sounds, it may seem Horace Mann was right to have argued that children should not learn the complex structure of English phonics. To the contrary, extensive research has shown that children benefit from learning phonics, so long as it is taught carefully and clearly. While there are many graphemes, English is a language composed of many reliable patterns.

In this section, you will learn some basic patterns of English phonics. We do not refer to these as rules because the complexity of our phonics system requires flexibility to account for the overlap between different patterns. Unlike rules, our patterns are flexible, but they are generally reliable. Remember that this section intends to give you the detailed information that *you* need to understand fully the key spelling patterns that govern the written English language. You should not feel compelled to explain these patterns to children in ways that reflect your adult understanding of them. We will discuss the specifics of how and when to teach your students the alphabetic principle and phonics in Parts II and III.

Important Spelling Patterns

None of us learned to read or spell by memorizing the multitude of spelling patterns that exist in the English language. However, as literacy teachers, it is helpful for us to have an understanding of these spelling patterns and what influences them. The different ways that we spell sounds are influenced by:

- (1) Predictable and invariant sound-spelling relationships
- (2) The position (beginning, middle, or end) of a sound in a word
- (3) What surrounds the sound
- (4) Location of a sound within a syllable
- (5) Common English conventions
- (6) Language of origin
- (7) Morphological structure (the way in which English spelling often preserves and represents the meaning of a word part)⁴¹

We will describe each of these influences in turn and examine many spelling patterns that serve as examples. As you read, keep in mind that these are not rules, but patterns that are flexible but generally reliable.

(1) Predictable and Invariant Sound-Spelling Relationships. In the English language, there are very few sound-spelling relationships that are predictable and invariant. Many sounds can be spelled in multiple ways, and some graphemes (letters or letter combinations) can represent more than one sound. Consider all of the ways that the /k/ sound can be spelled (*kind*, *cross*, *luck*, *choir*, and *talk* to name a few) or the

⁴⁰ Moats, Louisa Cook. *Speech to Print: Language Essentials for Teachers*. Baltimore, MD: Paul H. Brookes Publishing Co., 2000, p. 90.

⁴¹ Adapted from Moats, Louisa Cook. *Speech to Print: Language Essentials for Teachers*. Baltimore, MD: Paul H. Brookes Publishing Co., 2000.

sounds that the letter *g* can represent (/j/ in *geranium* and /g/ in *gallon*). The few sound-spelling relationships that are constant include:

- /p/ spelled with the letter *p*, as in *purple*, *spot*, and *trip*,
- /b/ spelled with the letter *b*, as in *beautiful*, *brick*, and *tub*
- /wh/ spelled with the letters *wh*, as in *white*, *when*, and *which*
- /th/ (unvoiced) spelled with the letters *th*, as in *thing* and *breath*
- /th/ (voiced) spelled with the letters *th*, as in *this* and *breathe*

Except for these few, the spelling of most sounds is dependent on one of the remaining six factors. Before we examine these factors however, we must make one note about the complicated matter of long vowels. These vowel sounds are much more challenging than their “short” counterparts, as there are so many different ways to spell one long vowel sound (for instance, both /ā/ and /ē/ -as in *make* and *meet*- have **eight** fairly common spellings). The long vowels are made more complicated by the fact that the most appropriate spelling *cannot be determined* by spelling pattern. For example, there is no way to know whether the word /blēk/ should be spelled *bleek*, *bleak*, or *bleke*. Despite the difficulty in pinpointing exact spellings, there are some conventions that can be very helpful in eliminating inappropriate spellings and narrowing the list of options. We will consider those conventions as we look at the six factors that influence spelling patterns.

(2) Position of the Sound in a Word. The position of the sound in a word can determine its spelling.

- **Consonant borrowers:**⁴² Several consonant letters, referred to as consonant borrowers, were never accounted for in our discussion of phonetics because they do not have their own sounds. Rather, the sound they represent depends on their position in a word, or the sounds that surround them. QU, X, and Y are examples⁴³.

Letter	Pattern	Example Words
QU ⁴⁴	QU says /kw/ at the beginning or in the middle of a word.	quiet, squish, inquest
	QUE says /k/ in the middle or at the end of a word.	grotesque
	IQUE says /k/ in the middle or at the end of a word.	antique
X	X says /z/ at the beginning of a word.	xylophone
	X says /gz/ in the middle of a word.	exit, anxiety
	X says /ks/ in the middle and at the end of a word.	waxy, fox
Y	Y says /y/ at the beginning of a word.	yes
	Y says /i/ in the middle of a word (with words of Greek origin).	gym, mystery
	Y says /i/ at the end of a one-syllable word.	fly, dry
	Y says /ē/ at the end of a multi-syllable word.	funny, quickly

- **Vowel friends:** Three of the long vowel sounds, /ā/, /ē/, and /ō/, (as in *pail*, *seat*, and *coat*) have predictable spelling patterns when they are spelled with two adjacent vowels. This is the basis for the familiar old phonics rule, “when two vowels go walking, the first one does the talking.” While this phonics rule has fallen into disfavor, owing to the many spellings that violate it (*lion*, *meow*, *coil*, and *George*, for example), it is true with these vowel patterns in particular. Knowing that “two vowels go walking” is helpful for reading, but the vowel friends also have a pattern that helps spelling. The spellings of the vowel friends differ depending on their location in a word.⁴⁵

⁴² The term “borrowers” comes from Lindamood-Bell.

⁴³ Y is a borrower, in addition to having its own sound.

⁴⁴ The letter Q never stands alone in a word; it is always paired with U to make the grapheme QU.

⁴⁵ The “vowel friends” pattern requires a few notes. First, the *ey* spelling at the end of a word is somewhat uncommon, as *ye* is often used instead (see the “consonant borrower” table above). Second, *ea* and *ey* sometimes

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Sound	Beginning or Middle Spelling	Example Words	End Spelling	Example Word
/ā/	<i>ai</i>	air, pail	<i>_ay</i>	play
/ē/	<i>ea</i>	each, seat	<i>-ey</i>	key
/ō/	<i>oa</i>	oat, coal	<i>ow</i>	glow

- **Other vowels:** Although their patterns are not identical to the vowel friends, the phonemes /aw/, /oi/, and /ow/ have a spelling convention that reflects their location in a word.⁴⁶

Sound	Beginning or Middle Spelling	Example Words	End Spelling	Example Words
/aw/	<i>au</i>	<i>audience, launch</i>	<i>aw</i>	paw, claw
/oi/	<i>oi</i>	<i>oil, coin</i>	<i>oy</i>	toy, employ
/ow/	<i>ou</i>	<i>outside, loud</i>	<i>ow</i>	brow, now

(3) What Surrounds the Sound. The sounds that surround a particular sound can influence its spelling.

- **Consonant Borrowers:**⁴⁷ While the spelling of some consonant borrowers depends on the location of the consonant in the word, the spelling of two others, C and G, depends on the letters that surround them.

Letter	Pattern	Example Words
C	C says /k/ before <i>a, o, u</i> , or any consonant (besides <i>h</i>).	crash, cat, coat, cut
	C says /s/ before <i>e, i</i> , or <i>y</i> .	rice, circle, cycle
G	G says /g/ before <i>a, o, u</i> , or any consonant.	gab, gone, gust
	G says /j/ before <i>e, i</i> , or <i>y</i> .	gentle, giant, gym

- **Short Vowel-Consonant Patterns:** It is sometimes said that short vowels are “weak” because they can easily “lose” their sounds. This is to say that they can be affected by vowels that follow in close proximity. For example, the word *pan* is pronounced /pan/. If you place an *e* at the end of the word, it must be pronounced /pān/. The short vowel /a/ has “lost” its sound and has become a long vowel.

Since short vowels are prone to “losing” their sounds, they must be sheltered from the influence of subsequent vowels. This leads to several spelling patterns. Some sounds that follow short vowels try to protect the short vowel.

represent the /ā/ sound (as in *they*, for example), although this is less common than the /ē/ pronunciation. Finally, in addition to representing the /ō/ sound at the end of a word, *ow* is also a spelling of the /ow/ sound, as in *brown*.

⁴⁶ It is important to note that the *aw* and *ow* spellings of /aw/ and /ow/ also appear when those sounds are followed by the sounds /l/ and /n/, as in *lawn, crawl, brown, and fowl*. The *ow* spelling of /ow/ is also used when the sound is followed by /er/, as in *flower, shower, and power*.

⁴⁷ The term “borrowers” comes from Lindamood-Bell.

Pattern Name	Description	Example Words
k and ck	When /k/ follows a short vowel, it is spelled <i>ck</i> . When /k/ follows any other vowel, it is spelled <i>k</i> .	back, stick brook, lake
dge and ge	When /j/ follows a short vowel, it is spelled <i>dge</i> . When /j/ follows any other vowel, it is spelled <i>ge</i> .	badge, smudge rage, stooge
tch and ch	When /ch/ follows a short vowel, it is spelled <i>tch</i> . When /ch/ follows any other vowel, it is spelled <i>ch</i> .	batch, witch beach, couch
Floss + zz	When /f/, /l/, /s/, or /z/ follows a short vowel, the letter doubles. When /f/ and /l/ follow any other vowel they remain single letters. When /s/ and /z/ follow any other vowel, they are spelled <i>se</i> and <i>ze</i> respectively	cuff, fill, grass, jazz leaf, spool house, gauze
Doubling Rule	This rule is used when adding a suffix that begins with a vowel. If a single consonant follows a short vowel in a one-syllable word, that consonant is doubled.	run → running fit → fitted win → winner
Change y to i	This rule is used when adding a suffix to a word that ends in consonant <i>y</i> . Before adding the suffix, change <i>y</i> to <i>i</i> , except when adding <i>-ing</i> (<i>crying</i>).	beauty → beautiful happy → happiest write → writing
Drop silent e	This rule is used when adding a suffix that begins with a vowel to a word that ends in silent <i>e</i> . Before adding the suffix, drop the silent <i>e</i> .	make → making wave → waved drive → driving

- Vowel-Consonant-E (Silent e):** Silent E is the most common long vowel spelling (besides the vowel alone, discussed in the subsection “Syllable Types”).⁴⁸ The silent E spelling refers to those spellings of the long vowels in which the long vowel letter is followed by a consonant and then the letter E. Examples include: *make*, *athlete*, *bite*, *note*, and *cute*. Adults often refer to this pattern as a “vowel consonant e” spelling.
- Past Tense Pronunciation:** The regular past tense is always spelled *-ed*. However, the past tense can be pronounced three ways, /t/, /d/, and /ɪd/, depending on the final sound in the base word. The following table outlines the correct pronunciation in all circumstances:

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Teachers often explain this pattern as **bopper e** (the *e* bops the short vowel on the head and tells it to say its name), **magic e** (the *e* magically changes the sound of the short vowel and makes it say its name), or **vowel blank e** (students are taught to associate the entire group of letters with the spelling and remember it as a unit).

Final Phoneme in Base Word is:	Past Tense is Pronounced:	Example Words
unvoiced	/t/	watched, shipped
voiced	/d/	climbed, owed, dragged
/t/ or /d/	/ɪd/ ⁴⁹	needed, wanted

⁴⁸ The one exception to this is that the *e_e* spelling of /ē/ is less common than the *ee* spelling.

⁴⁹ Many teachers say that the final sound is actually /ed/. While phonologically the pronunciation is /ɪd/, /ed/ is close enough not to confuse students, and it has the added benefit of matching the graphemes also.

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- **Pronunciation of Plurals:** Plurals are similar to the past tense. They are written with *s* or *es* at the end of the word, and are pronounced /s/, /z/, or /iz/, according to the following rule:

Final Phoneme in Base Word is:	Plural is Pronounced:	Example
unvoiced	/s/	sticks, bats, caps
voiced	/z/	shoes, waves, bags
/s/, /z/, /sh/, /zh/, /ch/, /j/	/iz/ ⁵⁰	classes, mazes, wishes, garages, batches, judges

(4) Location of the Sound within a Syllable: Syllables are easily defined: they have one, and only one, vowel sound. Syllables are useful to readers and spellers because they help us to separate long, complex words into comprehensible parts.

- **Syllable Types:** Syllables can be examined by type, and the type of syllable helps us to determine the correct pronunciation of vowel sounds. In the notation below, *v* indicates a vowel and *c* indicates a consonant.

Syllable Type	Notation	Description	Vowel Sound	Example Words
Closed	vc	The vowel is in the beginning or middle of the syllable; the consonant is at the end.	short sound	bun, it, send, bat, cop ⁵¹
Open	cv	The vowel is at the end of the syllable (leaving it “open”); the consonant precedes it.	long sound	mū (as in music), hō (hotel), tā (table), bī (binary), mē (medium), cy (as infancy)
R-Controlled	vr	Vowels followed by <i>r</i>	r-controlled sound	fir, car, her, more, burn
Silent E	vcE	These contain a vowel, followed by a consonant and the letter e, as described previously.	long sound	bone, bite, sane, mule, theme
Digraph	vv	These contain two contiguous vowels with one sound. These include the vowel friends, the spellings of /aw/ and other vowel spellings.	varies by digraph	lawn, pain, cease, tow, -ceive (as in receive), chief
Diphthong	vv	Syllables containing the diphthongs /oi/ and /ow/	/oi/ or /ow/	coil, town, ploy, mouse
Consonant LE	cLE	Syllables that contain only a consonant followed by the letters LE	the /e/ says the schwa sound (/uh/) followed by /l/	ble, dle, fle, gle, kle, ple, sle (often spelled stle), tle, zle

⁵⁰ Teachers sometimes tell their students that *es* actually says /ez/ or /es/. /ez/ is probably appropriate, considering the minimal contrast between /e/ and /i/. However, the difference in voicing between /s/ and /z/ is distinct, and we do not advise you take this shortcut.

⁵¹ Most of these examples are also real words. However, the individual syllables are typically not real words.

- **Syllable Division:** There are several main ways to break words into syllables. Note that the following rules are designed to produce the correct vowel sounds, not to match pronunciation exactly. For example, *follow* has only one /l/ sound in its pronunciation, although we visually divide it between the two consonants to make the first syllable a closed syllable.

Type	Description	Example
vc.cv	This is the most common, widely taught division. This creates a closed first syllable.	rab.bit, mar.ker, pub.lish
v.cv	When only a single consonant falls between two vowels, it is most commonly divided this way, making an open first syllable	tu.lip, la.bel, o.mit, cra.zy
vc.v	This is a less common way to divide when a single consonant falls between two vowels.	cab.in, pun.ish, drag.on
v.cLE	When the second syllable contains the cLE syllable type, divide before the consonant.	sta.ble, ,ma.ple. bu.gle
v.v	This occurs when two adjacent vowels are in separate syllables. Usually, this occurs when two adjacent vowels do not form a vowel team (i.e., ne.on). It is trickier with words like Se.at.tle or po.et, where the vowels might make a vowel team (<i>ea</i> and <i>oe</i> respectively)	li.on, bi.on.ic, re.al.it.y

(5) Common English Conventions. When the phonemes /s/, /or/, and /v/ are heard at the end of a word, the spellings for those phonemes are almost always followed by a silent *e*, whether or not the *e* is needed to create a long vowel sound. Each spelling has a different rule, as follows:

Phoneme	Spelling	Reason	Example
/s/	<i>se</i>	The <i>e</i> is needed after the <i>s</i> to distinguish words ending with a plural from words that merely end with the /s/ sound.	rose, mouse, lease, dense
/or/	<i>ore</i>	In English, /or/ is almost never spelled <i>or</i> at the end of a one-syllable word. Only <i>or</i> , <i>nor</i> , and <i>for</i> are spelled this way. Most others are spelled <i>ore</i> . There is no reason for this. It is merely a convention of English spelling.	more, store, lore
/v/	<i>ve</i>	In English, no word can end with the grapheme <i>v</i> . Only <i>rev</i> , which derives from <i>revolution</i> , is an exception. As with /or/, this is merely a convention of English spelling.	have, give, live, stave

(6) Language of Origin. As you have learned, many other languages have impacted the English language. The language of origin helps readers understand certain spelling patterns that seem to violate more predictable patterns. Without an understanding of the influence of the Greek language, it would be difficult to explain why the /s/ sound at the beginning of *psychology* is spelled *ps* and the next sound (/i/) is spelled *y*. Similarly, not understanding the assimilation of French words into our language would make it challenging to explain why the *ch* in *charade* represents the /sh/ sound and not the /ch/ sound as our English phonology would suggest. Finally, though this information is not helpful to spellers, it is interesting to note that all 100 of the most frequently used words in the English

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Instruction in high frequency words is critical to effective reading instruction. Because we *can't* decode many of these words, but find them in practically every sentence we read, we have to be able to identify them instantly. To do this, teachers post these words on "word walls," give students flash cards to help them practice at home, and quiz them regularly to assess their ability to read them automatically.

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language are of Anglo-Saxon origin.⁵² Many of these high frequency words are indecipherable by examining patterns, but rather we must memorize their spelling and be able to read them on sight.

(7) Morphological Structure. Morphemes are the smallest meaningful units in written language. A morpheme can be a whole word (such as *beauty*) if it can stand on its own and be meaningful, or it can be only part of a word (such as *-ful* in *beautiful*) if it must be combined with another morpheme to convey meaning. Having an understanding of morphemes helps us in three basic ways. First, we are able to determine what a word means if we can break it down and examine its component parts. Readers who know that the Greek root *hydro* means water will be better equipped to figure out what happens to a car when it *hydroplanes*. The process of examining morphemes to determine a word's meaning will be addressed in chapter six.

Understanding morphemes serves another purpose; if we understand how morphemes work, we are able to break down long, complex words (like *subterranean*, *sophistry*, or *dictatorship*) into chunks that help us to decode, even if we are not quite sure of each chunk's meaning.

Finally, knowing about morphology helps us to spell. Most often in the English language, spelling preserves and visually represents the meaning of a word (consider how the spelling of *signature* preserves the meaning of *sign*, or how *magician* relates to *magic*.)⁵³ As you may suspect, some of the spelling patterns that we have already discussed could also be classified as being influenced by morphological structure. For example, the doubling rule and the guidelines for pronunciation of past tense and plurals are influenced by what surrounds the sound, but also by morphological structure, as these patterns all have to do with suffixes (endings such as *-ed*, *-ing*, and *-s* are one type of suffix). Furthermore, some of the spelling patterns influenced by language of origin are also influenced by morphology, as most of our prefixes, suffixes, and roots derive from Latin or Greek. It's less important that we are able to neatly classify each pattern according to its influence, but rather that we have a broad arsenal of knowledge about how these predictable patterns work so that we can apply them as we read and spell.

In this section, we have taken a detailed look at the alphabetic principle and at some of the predictable patterns that help us to read and spell. As you consider these spelling patterns, remember the following:

- The spelling patterns **are not rules**; they are meant to be flexible (so there will be exceptions) but are generally reliable.
- Having a deep understanding of these patterns will inform your teaching and help you to explain certain confusing spelling conventions to your students. Remember that our explanations of these spelling patterns are **suited to the learning capacities of adults, not children**. We will explore how to teach your students to use these patterns as they read and spell in Part III.
- Predictable spelling patterns are influenced by the **position of sounds** in words, the **surrounding sounds**, the location of a sound **within a syllable**, some common **English conventions**, the word's **language of origin**, and **morphological structure**.

For a synthesis of the sounds and their related spellings, see the **Elementary Literacy Toolkit** (pp. 22-23: "Phonics Resources"); this Toolkit can be found online at the Resource Exchange on TFANet. ✖

⁵² Moats, Louisa Cook. *Speech to Print: Language Essentials for Teachers*. Baltimore, MD: Paul H. Brookes Publishing Co., 2000, p. 85.

⁵³ Ibid.

Review of Part I

Part I of this text provided you with a great deal of background knowledge about the construction of English speech and print. Though you will not present information about speaking, reading, or spelling to your students in such precise terms, you will use this deep understanding of our spoken and written language to give clear and accurate information to your students. The information that you learned about **phonetics** will help you guide all of your students to articulate consonant and vowel sounds correctly and will aid your work with the small number of students who struggle to hear and produce sounds. Your understanding of the **alphabetic principle**—the connection between our sounds and letters—will help you to draw your students' attention to the predictable patterns that help us to read and spell. In the next section of this chapter, we will give guidance on the best methods through which to teach the building blocks of literacy.

II. Teaching the Building Blocks of Literacy Through Direct, Explicit, and Systematic Methods

The building blocks of literacy are the underlying processes required to read with fluency. The key skills students must learn are:

- Book and Print Awareness
 - understanding the function and purpose of books and print
- Phonological and Phonemic Awareness
 - hearing and manipulating sounds in spoken speech
- Phonics and The Alphabetic Principle, including:
 - identifying and naming alphabet letters
 - understanding sound-symbol correspondences and spelling patterns
 - using knowledge about these patterns to decode words
- Word and Structural Analysis, including:
 - analyzing the meaningful parts of words to decode them

As you can see, the skills that constitute the building blocks of literacy are clearly defined. This is because reading researchers and educators have done extensive study in this area and achieved broad consensus on both what constitutes these building blocks and their great importance to student achievement. In *Beginning to Read: Thinking and Learning about Print*, a congressionally commissioned review of reading research, Adams evaluated all the existing studies on beginning reading instruction. She found that:

- Children who receive explicit, systematic phonics instruction are more likely to become excellent readers than those who do not.
- The above is especially true for “slower or economically disadvantaged students.”⁵⁴

Subsequent research, catalogued by the National Research Council in 1998 and the National Reading Panel in 2001, has shown overwhelmingly that:

- Teaching students phonemic awareness directly improves students' reading and spelling abilities.
- Teaching phonics and the alphabetic principle explicitly and systematically is one of the most powerful tools for assuring students become good readers.

⁵⁴Adams, Marilyn J. “Is phonics a worthwhile component of phonics instruction?” *Reading Rockets: News and Views: Research*, 2004 Online at <http://www.readingrockets.org/article.php?ID=248>, accessed 7/10/2010.

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Explicit and systematic phonics instruction is the most efficient and effective way to teach students to decode, and thus to read independently. Because the majority of students we teach are already lagging significantly behind their peers in their literacy development (even in Kindergarten), we must choose the most efficient and effective route to teaching them to read. As Lisa Delpit, noted expert on multicultural education, describes, it is critical that we teach young students without strong pre-literacy skills even more efficiently and explicitly than we do their more advantaged counterparts.⁵⁵ Since students without sufficient exposure to language and literacy before age five often have not had the opportunity to infer critical ideas about letters, sounds, and words, they require explicit phonics instruction that will remove the mystery for them. In this way, we can close the gap between our students and those who come to Kindergarten farther ahead. Clearly, we have no time to waste!

We now will turn to the specifics of providing instruction in the building blocks of literacy. Using the information learned in Part I, we will describe what children should

learn and how you can best communicate this information using effective, research-based strategies and activities. You will learn how to:

- (1) Build students' book and print awareness
- (2) Teach phonological and phonemic awareness
- (3) Provide explicit instruction in phonics and the alphabetic principle, including how to:
 - Teach students to identify and name letters
 - Introduce sound-symbol correspondences
 - Practice and review phonics skills through reading and spelling
 - Ensure that students can read high frequency words automatically
- (4) Teach more advanced word and structural analysis
- (5) Correct student errors in effective ways

Building Students' Book and Print Awareness

One of the first tasks of school is to show students how books work. Throughout Kindergarten and first grade, teachers constantly review the elements of books and the concepts of print. Teaching book and print awareness is most easily accomplished with a Big Book. Use the Big Book to model appropriate reading behaviors for students (the right way to hold a book or how to find the title and author, for example).

What Do We Mean By "Explicit and Systematic" Instruction?

The phrase "explicit and systematic" instruction has been used so often in the literacy world that its meaning has been obscured. It is important to clarify what we mean when we advise teachers to provide explicit and systematic instruction in the building blocks of literacy.

- **"Explicit" refers to the direct instruction** teachers provide in the patterns of our language and how to use knowledge of those patterns to read. So, teachers teach that *s* represents /s/, *i* represents /i/, and *t* represents /t/, and then teach students to blend those sounds together to read *sit*. Because explicit phonics instruction teaches students how to match letters to sounds and blend sounds to read words, children can eventually relegate this process to lower-level mental functions and free up energy for comprehension.
- **"Systematic" refers to the scope** (the range of skills to be taught) **and sequence** (the order in which they will be taught) of skills. You will progress through instruction in sounds and letters in a predictable, systematic way that accounts for how difficult it is to pronounce or spell each sound. For example, you will teach /ĕ/ (as in *bed*) before you teach /ē/ (as in *beet*) because the former sound has two predictable spellings while the latter has eight.

⁵⁵ Delpit, Lisa. *Other People's Children: Cultural Conflict in the Classroom*. New York: New Press, 1996.

Consider the following glimpse into a first grade classroom in which the teacher is reviewing concepts about books and print during a Shared Reading lesson:

Ms. Carranza is teaching a poem from her Big Book, *Pickled Peppers* in the second month of school. She takes out the Big Book and places it on a chart stand at the front of the class carpet. Her students already know the proper orientation of a book and left-to-right progression, so Ms. Carranza begins by asking, "Who would like to volunteer to come up and read the title for us?"

Since the students have read this book several times and know the title, about half of the students raise their hands. Christian comes to the book and reads, "*Pickled Peppers*" as Ms. Carranza moves her fingers under the words. She then says, "Thank you, Christian. Can you also point to the author?" Christian hesitates, so Ms. Carranza interjects after a few seconds, "Please call on someone to help you." Christian selects Maribel, who points to the author's name on the front cover. Ms. Carranza sends the students back to the carpet and then says, "I want to turn to the part that tells me what page my poem will be on, the Table of ..." the students chime in, "Contents!"

She turns to the Table of Contents as she notes, "The Table of Contents is always in the beginning of the books so you can easily find it. Oh, here it is, right at the beginning!" She continues by locating the poem she wants to read. She then asks a student to come up and point to the part of the Table of Contents that tells what page the poem will be on. Esther points to the number, and Ms. Carranza asks, "How do you know that our poem is on that page?" Esther replies, "The dots connect it." Ms. Carranza, "The dots connect the title to the number, you're correct. Can you turn to the correct page please?" Esther does. Ms. Carranza then reads the poem to the students, tracking print as she goes with a pointer so her arm does not obstruct the view of any students.

Including reading the poem aloud, this lesson takes about five minutes. Ms. Carranza knows that she could spend more time, but she feels that practicing concepts of book and print awareness for a short time each day is more beneficial than focusing on the skills in great detail at one time. We agree.

In Kindergarten, students need much of the same information that Ms. Carranza is reinforcing a year later. However, they also need more basic practice in tracking print and learning that visual word length is somewhat associated with the length of pronunciation. For instance, at the beginning of the year, Kindergarten teachers might give all of their students name necklaces and then call two students with names of different lengths to the front of the room to show off their nametags. The teacher tells the class both names

In What Grade Levels Do I Teach Book and Print Awareness?

Book and print awareness develops in **Kindergarten and first grade**. Teachers in these grade levels should be conscious to build book and print awareness into their reading activities each day. Beyond first grade, teachers can continue to mention concepts of books and print where appropriate, but need not spend instructional time on this topic.

What Students Must Know About Books and Print:

- How to hold a book right-side up
- Print progresses from left to right
- The cover and what information it contains
- Where the title is located and what information it gives readers
- What authors and illustrators do
- The purpose and function of the Table of Contents, including using the numbers to locate pages
- How to use the numbers at the bottom of the page
- Words are bounded by spaces
- Words are made of letters and some words are longer than others
- The length of the word tells us something about how long it is to say
- Sentences begin with capital letters and end with punctuation marks, including periods, exclamation marks, and questions
- The function of various types of punctuation

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and asks them to look at the words and tell which is longer. This connects the length of print to the length of sound using words that are very familiar to young children—their own names.

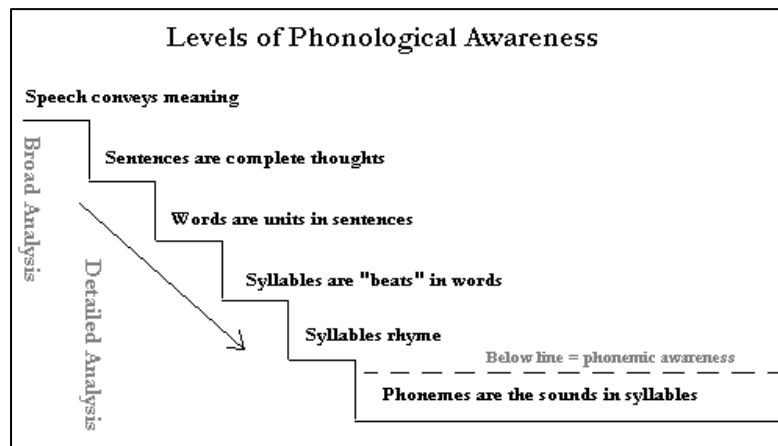
Teaching Phonological and Phonemic Awareness

As you learned in chapter one, phonological awareness is the understanding that spoken language is composed of units of speech, such as words, syllables, rhymes (*found* and *pound*), onsets (the part of the syllable before the vowel, such as *sw* in *swim*) and rimes (the part of the syllable including the vowel and everything that follows, such as the *im* in *swim*). Phonemic awareness, a subset of phonological awareness, is the understanding that words are made up of individual sounds, or phonemes (*maps* contains four phonemes, /m...ă...p...s/ while *shock* contains three, /sh...ö...ck/). We know that competencies in phonological awareness are critical to becoming an effective reader because they help children understand that words are made up of sounds and allow children to break a word down into its component sounds, and then put those sounds back together to produce the word. Neither phonological nor phonemic awareness requires knowledge of print, as the combination of sounds and letters is phonics, the next stage of reading development.

In What Grade Levels Do I Teach Phonological and Phonemic Awareness?

Phonological and phonemic awareness develops in **Kindergarten and first grade**. If some of your second-fifth grade students have weak phonological awareness, it will be necessary to provide differentiated instruction to teach them these requisite skills.

Phonological and phonemic awareness can be visualized along a continuum of increasingly discrete analysis. You can see this in the diagram to the left. The broadest type of phonological awareness is awareness that people speak in parts called sentences, each with its own information. More discrete is the realization that words make up sentences; then, that syllables make up words; and finally, that phonemes make up syllables. You will not necessarily teach these in this order;



it is perfectly fine to teach a lesson on words in sentences on the same day you count syllables in words.

As you read the instructional information on phonological and phonemic awareness, you will notice that some activities are solely auditory and others involve the use of print. There is no reason that phonological awareness be divorced from the rest of the literacy curriculum. When students are practicing recognizing words by reading them separately from a poem, they are exercising phonological awareness regardless of the visual cue. As a new teacher, you may worry that using print with phonological awareness activities will undermine the focus on phonological awareness. Integrating some of these activities with other literacy domains is perfectly acceptable.

Planning and Implementing Instruction in Phonological and Phonemic Awareness

While phonological and phonemic awareness instruction is critical, it does not need to be time consuming. In Kindergarten and first grade, these lessons should take no more than ten minutes and should be fun, but informative. Thankfully, many great Kindergarten activities lend themselves very well to this type of instruction. If your reading program does not include phonological and phonemic awareness tasks for Kindergarten and beginning first grade students, or if you are teaching older

students (especially those with auditory processing disorders), you will need another resource. *Phonemic Awareness in Young Children* by Adams, Foorman, Lundberg and Beeler is an excellent resource for these activities and includes a scope and sequence of activities for Kindergarten and first grade students.⁵⁶

The following activities all address the various levels of phonological awareness (except phonemic awareness, which will be handled separately). Again, **this is only the tip of the iceberg**. It would be impossible in a few pages to summarize the range of possible and advisable activities you might do with your students. In addition to using your program, and, if necessary, *Phonemic Awareness in Young Children*, ask veteran Kindergarten and first grade teachers what phonological awareness activities they recommend.

- Listening:** Kindergarten students need to learn to discriminate categories of sounds. To that end, collect some noisy objects. Show them to the class. Then, have students close their eyes while you make noises with each one. Have students identify the object that made the sound. You can also move to different parts of the room to make the sounds and have students point (with eyes closed) to the origin of the sound.
- Following Directions:** To communicate the concept that speech conveys meaning, students need to learn to listen carefully to directions. Play games with Kindergarteners where they need to perform tasks, such as placing objects in different locations. For example, you might tell students to place a book under, on, beside, or behind a chair. You can also play Simon Says with similar kinds of words, including the words left and right and increasingly difficult prepositions (which you will always explain before using).
- Rhymes and Songs:** Kindergarten students should read and hear lots of nursery rhymes, common songs, and poems. Children enjoy these immensely, and they have many built-in opportunities for practicing hearing and producing different sounds and rhyming patterns. Some sample lessons are below. However, there are dozens of other activities that can be done with songs and poems. Again, *Phonemic Awareness in Young Children* includes many activities to do with songs, in addition to their lyrics (the words to which you may have forgotten since you were five).

“Down By the Bay”

* = Teacher sings.
 # = Students repeat.
 @ = All sing.

* Down by the bay, #
 * Where the watermelons grow, #
 * Back to my home, #
 * I dare not go, #
 * For if I do, #
 @ My mother will say, ay, ay,
 * “Did you ever see a _____?”
 @ Down by the bay.

Repeat as many times as desired.

In Mr. Hanson’s Kindergarten class during the second week of school, the students learn a song called “Down By the Bay.” (The lyrics are printed in the box to the right.) Before beginning the song, Mr. Hanson explains to the students that they will be practicing rhyming. He says, “When I say, ‘Did you ever see,’ listen carefully! You can guess the rhyme. If I say, ‘Did you ever see a bug under a ...’, what would come next?” The students do not respond, so Mr. Hanson offers a choice: “What would rhyme with bug? If it rhymes with bug, it

⁵⁶ Adams, Marilyn Jager, et al. *A Classroom Curriculum: Phonemic Awareness in Young Children*. Baltimore, MD: Brookes Publishing Co., 1998.

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sounds the same at the end. Would the bug be under a chair or under a rug? Which word rhymes with bug, chair or rug?” About half of the students respond, “Rug.” The teacher tells them they will practice rhyming when they sing the song. The teacher sings the song slowly and the students repeat each line. He enunciates clearly to make sure the students can repeat the words. When the teacher reaches “Did you ever ...”, he says, “Did you ever see a frog sit on a ...” He pauses for students to respond. They are still unsure, so Mr. Hanson offers another choice. “Where would a frog sit, on a log or on a car?” About 75% of students respond, “On a log!” Mr. Hanson continues this process twice more, continuing to sing slowly. He continues with “fox climb in a box” and “duck driving a truck.” As the song continues, the students become increasingly successful at creating the rhyming words that complete each line.

- **Count Words:** In her Kindergarten classroom in the third week of school, Ms. Perez reads aloud “Hickory Dickory Dock” from a Big Book of nursery rhymes. As she reads, she tracks the print with her pointer to draw attention to the separate words. When the poem is complete, she returns to the first line and tells her students, “Poems are made up of different words. When authors write words, they separate the words with spaces.” She points to the spaces in the first line. She continues, “We can also hear the different words. Let’s read the first line again and count the different words. Ok, everyone read together.” The students and teacher read chorally, the teacher pausing slightly between each word. Ms. Perez asks, “How many words did you hear in the first line?” She signals the students may all answer together. “Three!” they respond. Ms. Perez has a student come to the Big Book to point and count the spaces between the words. She repeats this with two more lines of the poem.⁵⁷
- **Be the Words:** In Ms. Brown’s Kindergarten class in the fifth week of school, students sing, “Mary Had a Little Lamb.” After they sing the song, Ms. Brown asks the class, “How many words were there in the first line? Let’s sing it again and count the words on our fingers.” The class sings, with Ms. Brown leading them slowly to separate the words, “Mary had a little lamb.” Ms. Brown holds up a finger for each word she sings, nodding at students who are also using their fingers as they sing. “How many words did you hear? Show me with your fingers,” she continues. About 90% of students hold up five fingers. (A few seem to have counted syllables, holding up seven fingers, but Ms. Brown decides not to address this error, as she wants to see if these few students are able to correct their mistakes through participation in the rest of the lesson.) Then, Ms. Brown asks children to come to the front of the room to be each word. “I am going to pick some people to come to the front and say a word from the poem. The first word was ... Mary. Who would like to come up and say Mary?” Ms. Brown tells each student which word they will be. Then, she explains to the class, “I am going to point to each student with the magic pointer. They will say their word. Let’s see if it sounds like it does when we sing it.” Ms. Brown has students say

We also do lots of things with our bodies to help us segment words into sounds. We pull words apart with our hands. We do sound taps on our arms and from there we can figure out which sound is in the beginning, middle, and end of words. I love teaching phonological awareness because it can be as exciting and as fun as you make it.

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⁵⁷ One instructional note: Ms. Perez could have done this with every line of the poem, but she was concerned that the children would lose focus and also that her lesson not take more than five minutes, since she had a second phonological awareness activity planned.

their words in sequence, to see if they can approximate normal speech. During the first try, two students need to be told their word again. Ms. Brown says, "You all said your words correctly. Great job. This time, let's say it faster to see if we can make it sound like the song." They repeat it, remembering their words and with greater fluency. She compliments them again, has them return to their carpet squares, and repeats this process with the remainder of the poem with different students.

- **Blend Syllables:** Ms. Finney's Kindergarteners have already learned to clap syllables. They can do this well with words up to three syllables. She is now interested in helping them blend syllables. Since this can be challenging, she decides to use visual cues to help. She selects some pictures of animals from a picture dictionary, expands them on the copier, and brings them to class. She says: "This afternoon, girls and boys, we are going to practice putting syllables together. I am going to show you a part of a picture, and I will tell you what it says. Then, you can repeat it." She hides the pictures from the students. The first word is *tiger*. She cuts the copied picture into two pieces. She holds up the first one and says, "/tī/." She points under it, and says, "When I point to the piece, you can say it. This is /tī/." She points and her students respond, "/tī/." She places the picture in a pocket chart. Then she says, "I am going to show you another piece. I know that it will make a picture you know, but I only want you to say the sound it says." She places the second half of the picture in the pocket chart, slightly separated from the first part. "/ger/," she says. She points. And the students reply, "/ger/." Ms. Finney continues, "Now, I will point to each piece and you will say it." When she points, the students say that syllable part. She now says, "Ok, now when I sweep my finger under the word [she demonstrates], you can say the whole thing. Are you ready?" She sweeps her finger. The students respond, "Tiger." The teacher sweeps again, the students respond and she smiles. "I like how you listened to the directions and watched my fingers," she says. "Now, let's try another one." She continues with camel, dolphin, giraffe, elephant, gorilla, kangaroo, and finally hippopotamus (going from shorter to longer words).

We do a nursery rhyme every week, locating rhyming words and clapping the rhythm. And songs . . . the kids love them! You can do simple things like singing "Zippity-Do-Da" but you change it to all b's or all w's . . . "Bippity-Bo-Ba" or "Wippity-Wo-Wa". The kids think it's silly and they have fun with it, but it's also teaching them about initial sounds.

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Teach For America**

In the area of **phonemic awareness**, there are several tasks you can ask students can do to improve their ability to hear and work with individual sounds. Note that none of these tasks relies on print for students to complete them successfully. As always, before you ask students to complete any of these tasks without guidance, you must model how to do them and gradually involve your students in the activity. Consider the following table that lists and explains the most effective phoneme manipulation tasks:

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Phonemic Awareness Task	Explanation	Example
Replication	Students repeat a sound with correct articulation.	Teacher: Put your top teeth on your bottom lip to say /f/. Ready? Students: /f/
Isolation	Students identify a single sound in a word.	Teacher: What is the first sound in <i>bath</i> ? Students: The first sound in <i>bath</i> is /b/.
Identification	Students recognize the same sounds in different words.	Teacher: What sound is the same in <i>math</i> , <i>mind</i> , and <i>money</i> ? Students: The first sound, /m/, is the same.
Categorization	Students recognize the word in a set that has an “odd” sound.	Teacher: Which word does not belong? <i>Hug</i> , <i>hut</i> , <i>run</i> . Students: <i>Run</i> doesn’t belong. It doesn’t start with /h/.
Deletion	Students remove a sound from a spoken word to create a new word.	Teacher: What is /sheep/ without the /p/? Students: <i>She</i> .
Addition	Students add a sound to a spoken word to create a new word.	Teacher: What word do you hear if you add /s/ to /loe/? Students: <i>Slow</i> .
Rhyming	Students change the sound(s) preceding the vowel to create a new rhyming word.	Teacher: The word is <i>lit</i> . What word do you make if you change the /l/ in /lit/ to a /s/? Students: <i>Sit</i> .
Segmenting and Counting	Students separate spoken words into individual sounds.	Teacher: How many sounds are in <i>mouse</i> ? Count them with your fingers as you say them. Students: /m/ /ou/ /s/. Three sounds.
Blending	Students combine individual sounds into a spoken word.	Teacher: What word is /b/ /a/ /n/ /d/? Students: /B/ /a/ /n/ /d/ is <i>band</i> !
Substitution	Students replace one sound in a word with another.	Teacher: The word is <i>cop</i> . Change /p/ to /t/. What’s the new word? Students: <i>Cot</i> !

All of these tasks can have value for students. The more ways students are able to manipulate phonemes, the more likely they are to internalize these skills. However, only some of these tasks are **highly correlated** with reading and spelling. For all students with weak phonemic awareness skills, **the two most critical tasks are segmenting and blending**, as segmenting is required to identify separate phonemes for spelling and blending is required to sound out words.⁵⁸ So, for older children who still require phonemic awareness support, focus on these two tasks is the most efficient means of assuring they develop the necessary skills. For younger children, segmenting, blending, and phoneme isolation activities (isolating initial, medial, and final sounds) are most important. Consider the following classroom examples of the most important phonemic awareness tasks:

- **Phoneme Isolation:** In Mr. Martinez’s first grade class, the students practice isolating sounds daily. As students are learning the short vowels, Mr. Martinez plans lessons to emphasize the short vowel sounds heard in the middle of words. Those lessons work like this: “This morning, you will practice listening for the short vowel sounds in words. Let’s review the sounds of the short vowels we have learned. Fabian, will you please point to the short vowels and have the class repeat them.” Fabian takes the pointer and points to the alphabet letters for the short vowels. He says, “sound” as he points to each and the students say the sound. (Mr. Martinez has shown the students how to do this four other times, so Fabian knows what to do). As Fabian reads, Mr. Martinez surveys the classroom, watching to

⁵⁸ For older students who may need more extensive phonemic awareness drill, the following book may be helpful: Greene, Jane Fell, Ed.d. *Sounds and Letters for Readers and Spellers*. Longmont, CO: Sopris West, 1997.

see which students might have difficulty with this activity. When all five short vowels are read, Mr. Martinez takes the pointer and says, "Now, I will say some words. I want you to listen carefully to tell me what sound you hear. It will be one of the short vowels. Listen carefully. When I snap my fingers, everyone say the vowel sound. Thumbs up if you're ready." Students raise thumbs. "Ok, mat." Mr. Martinez does not orally stretch the word, but waits two seconds, and then snaps. About two-thirds of students say /a/. A few say /m/. Mr. Martinez responds, "I'll say that again. Listen for the sound in the middle." He repeats more slowly, "Mmaaah. Did you hear /m/ in the middle or /a/ in the middle?" Students: "/a/." Mr. Martinez continues, "I like how you listened for the sound in the middle. Fish. What is in the middle?" He snaps. Students: "/i/" Mr. Martinez: "Good. That is the short ..." Students: "I." Mr. Martinez: "Right. Next, set." Students: "/e/." Mr. Martinez: "That's the ..." Students: "Short E." He repeats this process with five more words, emphasizing the middle, short vowel sounds. It takes about 4 minutes to complete the lesson.

- **Phoneme Segmentation:** In Ms. Murphy's 1st grade class, the students practice segmenting on a daily basis at the beginning of the year. Segmenting will help them become strong spellers, so Ms. Murphy teaches them a clear procedure. First, she practices with some simple words, showing students how to segment with their fingers. She says, "Today, we will learn how to listen to a word and figure out the sounds inside it. Let me show you how to do it. First, I will say the word, /cat/. I will say it again to listen to all the sounds in the word. /cat/. Now, I will say each sound separately and hold up a finger for each sound. Listen, /k/, /a/, /t/. [She holds up a finger as she says each phoneme.]⁵⁹ Now let's try one together. I will say the word, and then you will repeat it. I will point to you so you know when to talk. The word is /big/." Teacher points at students. Students say, "/big/." Ms. Murphy continues, "Let's say it again to make sure we heard all the sounds. /big/. [Again, she points and students repeat.] Now let's say all the sounds and hold up a finger for each one. /b/, /i/, /g/. [Students say sounds and hold up fingers]." The class continues with a few more examples. Then, Ms. Murphy decided to repeat the process without the signals to keep the lesson moving quickly and to ensure that her students remained engaged. She says, "Now, let's try this again. This time, when I say the word, just say it after me. I am not going to point at you. Ready? [Students nod.] Ok, here we go. /pet/. [Students repeat.]" Ms. Murphy continues the lesson with ten more example words.
- **Oral Blending:** In Ms. Murphy's first grade class, the students also practice blending sounds daily at the beginning of the year. Ms. Murphy's blending lessons function just like her segmenting lessons, only in reverse. Ms. Murphy's reading program suggests lists of words to blend, and she usually blends those. Ms. Murphy says, "Let's get ready to practice blending some sounds together to make a word. I'll say each sound and then you'll blend the sounds and say the word quickly."

She holds up fingers as she pronounces each sound, "/M/ /a/ /p/..." To signal that the children should respond, Ms. Murphy sweeps her hand in an arc from left to right (as the students see it) with the fingers raised, to demonstrate that the sounds are being blended. Then, when students are to say the word naturally, she moves her hand straight across from left to right. This technique will be used when Ms. Murphy does phonics blending. Ms.

⁵⁹ Note that Ms. Murphy holds up her right hand so that her knuckles face the students. She puts up her index finger first, then her middle finger, and so on. She does it this way to assure that the students see her fingers follow the left-to-right progression of print.

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Murphy asks her students to practice blending seven sets of sounds into words, using the same procedures each time.

As you can see, phonological awareness activities should be fun, informative, and brief. They should engage students in analyzing oral language at both a broad level (counting the words in a sentence) and a very narrow level (counting the sounds in a word). Developing your students' skills in these areas creates a solid foundation on which to add the next layer of instruction: the relationships between these sounds and our letters.

Teaching Phonics and the Alphabetic Principle

In addition to become experts at breaking words down into sounds and putting sounds together to make words, all students in elementary grades must receive literacy instruction that **includes extensive explicit, systematic phonics instruction**. Without it, students will struggle greatly in later grades. In this section, we describe methods for teaching students to identify and name letters, to understand the sound-symbol correspondences (including the spelling patterns previously discussed), to practice and review their phonics skills through reading and spelling, and to read high frequency words on sight.

Teaching Students to Identify and Name Letters

Before students can begin to understand the connection between letters and sounds, they first have to be able to identify and name the 26 alphabet letters. Kindergarten teachers use a variety of methods to teach students this skill, including discussing letters found in children's names, examining letters individually and talking about their features (some letters are written with circles and others are written with sticks, for instance), having students trace the shape of formations (with pencil and paper, in the air, with their finger on sandpaper cut-outs), and always connecting the visual representation of the letter with its name (A, B, C, etc.). There is no need to be especially creative in your methods because students simply need lots of exposure to how letters look and what they are named, and many opportunities to write the letters to master this skill. Students should be able to name both lower and upper case letters on sight, and you should track and monitor your students' letter-naming skills over the course of the Kindergarten year.

Instruction in Sound-Symbol Correspondences

Effective phonics instruction continues with solid introductions to each sound and the symbol or symbols that correlate with it. To this end, your students will benefit from having names for sounds that differ from alphabet letters, because more than half the alphabet letters represent sounds other than their commonly associated alphabet sound. For this reason, some reading programs have created their own names for the sounds. For example:

In What Grade Levels Do I Teach Phonics and the Alphabetic Principle?

Phonics instruction happens throughout elementary school. Students begin learning to identify and name letters, and to connect the most commonly associated sound to each letter, in **Kindergarten**. By the end of **first grade**, students should know all the English sounds and many of their spellings. They should understand that groups of letters make sounds that are sometimes distinct from the letters themselves. In **second and third grades** students will master reading longer words with complex spelling patterns. In **fourth and fifth grades**, students will be able to use the structure of words (prefixes, suffixes, roots, and multiple syllables) to decode.

*I have a tracking system of individual and group progress called the "Road to Reading," where students can see which letters they know, and which they still have to learn. We track progress on sticker charts at the front of the room for individual letters learned. Our group tracking is a road on a bulletin board, upon which we have placed stars bearing the letters 80% of the class has mastered. When we put up all the letters, we will reach the end of the road and be **READING!***

Stephanie Halgren, Houston '04
Director of Design, Early Childhood Education
Teach For America

- Open Court Reading has “sound-spelling cards” that include a name for each sound. The name matches a picture that functions as a mnemonic device. The “ball” card features a picture of basketball to represent the sound /b/. Students are also taught to pretend to bounce a ball when they say the /b/ sound, another mnemonic device. Programs that have simple memory devices like this are ideal for teaching younger children phonics. Each feature of the card – the picture, the name, the sound, and the action – helps children firmly place these sounds in memory.
- The Lindamood-Bell Phoneme Sequencing (LiPS) Program includes names for all the sounds. (These are the “Simple Names” we described in the section on phonetics.) Their names are designed to remind children of the mouth formation for each consonant phoneme. The “tongue tapper” name reminds students that their tongue taps the alveolar ridge when they say /t/ or /d/. The program also uses the words “voiced” and “unvoiced” to create distinctions between the pairs. The names for the LiPS sounds are somewhat less intuitive than those in other programs, although they are vastly more descriptive of the action of the mouth. The use of these names is most helpful for older children and adult non-readers who can remember the names but struggle with phonemic awareness.⁶⁰

If your district’s reading program includes devices to help children remember sounds, use them.

Although it might be appealing initially to use more linguistically descriptive or intuitive devices, avoid doing so. Your students probably have prior knowledge with the devices used in their program and will probably use them the following year. It is probably best to introduce your own devices only in the absence of any such assistance built into your reading program.

Many reading programs have designed particular methods for introducing sounds. If your reading program suggests a particular method for introducing the sound-symbol correspondence, use it. If not, here are some **key principles to keep in mind as you introduce a new sound-symbol relationship**. Alongside these principles, we’ll see how a classroom teacher might put these principles into action. Ms. Bains, our example teacher, teaches a third/fourth grade combination class for students with special needs. Most of her students have learning disabilities in the area of reading, so she uses a first grade reading program to address her students’ decoding needs.

Ms. Bains has posted special “sound-spelling cards” provided by her reading program. On one side of each card, the alphabet letter of each card is written. On the reverse, the cards contain the alphabet letter at the top, a mnemonic picture to help students remember the sound (in this case, a zipper), and the graphemes for the sound at the bottom (in this case, *z* and *_s*).⁶¹ For sounds the class has already learned, Ms. Bains has turned the card to show the mnemonic picture and the graphemes. The remainder (at this point, about fifteen cards, including the sounds without an alphabet letter) show only the alphabet letter or nothing at all.

⁶⁰ The mouth formations can also be helpful for younger students, but this works best in a one-to-one setting, which will probably not fit into your busy schedule. With children ages five to eight, use devices that are easier to remember. Also note that some students with learning disabilities have short and long-term memory problems that impede development of new vocabulary. For these students, it is probably also best to avoid introducing new vocabulary if the terminology they already know provides some mnemonic clues.

⁶¹ Some reading programs include a “short vowel zz” spelling (from the floss + zz rule) in their phonics practice. Open Court Reading does not.

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Let's look into Ms. Bains' classroom to see **how she introduces a new sound** to her students:

- **Introduce the sound.** On this day, about three months into school, Ms. Bains is introducing the /z/ sound. Ms. Bains explains, "By the end of today we are going to be know which letters makes the sound /z/ and be able to read and spell words that have that sound in them. You all have already learned the way that we spell so many sounds and you are much better readers and spellers because of it! If you work hard today, you are going to become a little bit smarter." As she explains the objective, she turns over the sound-spelling card above the board. She explains that the picture of the zipper helps us remember the /z/ sound because "that's the sound a zipper makes" and explains that we spell this sound with the letter z or with an s at the end of some words.
- **Have your students practice saying the sound.** Ms. Bains asks her students to remind her of the sound by pronouncing it to a partner and then along with the whole class. The /z/ sound fills the room.
- **Introduce the letter or letters associated with the sound.** "There are two ways that we can spell the /z/ sound," Ms. Bains explains, pointing to her sound spelling card. "In most words we spell /z/ with the letter z. But if a word ends with the sound /z/, then we spell it *blank s*."
- **Practice writing the letters and saying the sound (this can be done with a finger in the air).** Next, Ms. Bains has students practice spelling the letters that represent the sound. She explains the formation of the z carefully, since some students write it backwards. As she demonstrates on the board, she says, "Starting point on the middle line, across to the right, down to the left, and across to the right again. /z/." Then, she asks the children to write the letter as they say the sound. Then, Ms. Bains repeats this procedure for the *_s*. She says, "The blank tells us that ..." and students chime in, "a letter goes in the space." Ms. Bains nods and adds, "Yes, and it tells us that the s is at the end of a word. We use this spelling often when we are spelling a plural, like *girls* or *boys*."⁶²
- **Ask students to provide words that contain the target sound; write those words as students suggest them.** Then, Ms. Bains reads the students a story containing references to the zipper—the mnemonic device for this sound. Ms. Bains asks her students to listen for the /z/ sounds in the word. When the story is finished, Ms. Bains asks the students which words contained the /z/ sound and students share words from the story.
- **Practice hearing the target sound in spoken words.** "Now," she continues, "let's practice listening for the /z/ sound at the beginning of some words." As she reads example words, students put a thumbs up if they hear /z/ at the beginning. Ms. Bains repeats this procedure, this time asking students to put a thumbs up if they hear /z/ at the end of a word.

Short e is always the hardest short vowel sound for Kindergarteners and first graders to remember! We sing a short e song, to the tune of "Frere Jacques," complete with movements: "Where is short e, Where is short e? Here I am, Here I am. I am in a pet bed, elephant and fresh bread, /e/ /e/ /e/, /e/ /e/ /e/." I got this song from the internet. The internet has tons of websites with songs, poems, and games to help develop phonological awareness.

Iva Taylor, Delta '00
Literacy Coach, Bronx Charter School for the Arts

⁶² Ms. Bains additional explanation is a perfect example of information that students should know but for which they should not be made fully responsible. Ms. Bains will remind students that this spelling comes at the end of a word when they use it in the middle, but she does not expect students to remember this perfectly.

- **Provide practice in blending words with the sound (and other sounds that you have already taught).** After practicing the grapheme and the phoneme separately, Ms. Bains blends words with the students. (Blending is described in more detail below.) She blends words that contain sounds and spellings students have learned. Some of the words they blend include *zip*, *his*, *buzz*, *bibs*, *zigzag*, and *frogs*. Notice that her list includes words with both spellings of /z/, a word with a blend (*frog*), and a multi-syllable word that she blends in parts (*zigzag*).
- **Ask students to spell words with the sound (and other sounds that they have already learned).** Next, the class practices spelling words with the /z/ sound. They call this activity “dictation”. Ms. Bains begins, “For dictation today, we are spelling words with the /z/ sound. There are only two spellings we will use. What are they?” She points to the card and the students read the spellings. “Good,” she continues. “To begin, I will say a word and you will repeat it. The first word is *zip*. What’s the word?” Her students reply, “*Zip*.” Ms. Bains continues, “Ok, now let’s segment the word, separate its sounds. Hold up one finger for each sound. Ready, go.” Together, the students, teacher, and classroom aide say, “/z/.../i/.../p/.” They hold up a finger for each sound. “What spelling will you use for the /z/ sound,” she asks. “Z,” the students reply. “Good. We can’t use *blank s* because...” Students chime in, “it’s not the end of the word!” Ms. Bains continues this procedure for three more words and then dictates a sentence. She includes both spellings and known sight words in the sentence: *Zet’s dog has a zigzag on its back*.
- **Give students many opportunities to read fully decodable text containing the sound (and whichever letters are being taught), sight words that have already been introduced, and other sounds that students have already learned.** The students finish the lesson by reading a decodable book which includes only the *z* spelling of /z/. Ms. Bains’ reading program contains a second decodable book for the *_s* spelling of /z/, but she is planning to practice this at a separate time. The students read the decodable once chorally. Then, Ms. Bains has the students read the book, asking different groups of children to read at various points. She helps students sound out challenging words by saying the sounds slowly with them.

After you have introduced a new sound-spelling correspondence to your students, you will ensure that they learn to use it in their reading and spelling by having them participate in **blending activities**. Blending is possibly the **most important activity** done in any first grade class. Blending combines the oral blending task with letters. Most commonly, teachers have students read lists of words from the board using a particular procedure (described below) and then have the students practice reading some of the same words in sentences.

Creating a blending lesson first requires that you know what you need to teach. For example, after a few weeks of phonics instruction in first grade, students will have learned /a/, /b/, /i/, /k/, /l/, /s/, and /t/, among others. At this point, you can construct a blending lesson that follows the introduction of a new sound. If you are introducing the /d/ sound spelled *d* and you have already completed all the tasks required to introduce a sound prior to this step (refer to the above section on sound introduction), you can now blend words that include this sound. If your reading program does not include word lists, you can make your own. (Remember that words with complex syllables are more challenging than words with simple syllables. You should include both types, but recognize that the complex words will be more challenging.) As a first grade teacher, your word list might look like this: *dab*, *did*, *dad*, *sad*, *lid*, *slid*, *list*, *slit*, *bid*, *bits*, *tad*, *dill*, *lad*, *cat*, *cast*. Notice that not every word includes the target sound, as many sounds as possible have been used, and both simple and complex syllables are included. Your lesson should also include a sentence or two to practice reading fluently with real text. Here are sentences you might use: “The sad lad did not have a cat. Did Dad sit on the lid?” These sentences only include words that can be decoded using the sounds students have learned, along with high frequency words. Clearly,

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these sentences do not begin to approximate real literature, but they give students fluency practice that will help them to read stories in decodable books independently.

To blend the words, have students say the sounds for the letters as you write them and then blend them to make a word. You can use verbal instructions and hand signals to teach this process and make it quick and easy for your students to follow:

- As you write each letter (or letters in the case of digraphs such as *sh* or vowel teams like *ea*), say “sound” to prompt students to pronounce the corresponding sound.
- When you want them to blend the letter-sounds, say “blend.”
- When you want them to pronounce the word naturally, ask, “What’s the word?”
- Hand signals might include pointing at the letters for students to say the sounds; sweeping the finger in an arc under the word to blend; and sweeping the finger straight across to say it naturally.

To have a clear understanding of blending activities in the classroom, consider Mr. Kang’s first grade class in which students have learned the /d/ sound, as described above, and are now practicing blending. He is blending “through the vowel” for the first few words so students can practice blending shorter parts before they try longer ones. Here’s how he does it for the first four words:

Teacher Action	Written on the Board	Teacher Talk/Action	Students Say...
Write:	d	“Sound”/point	/d/
Write:	da	“Sound”/point	/a/
Blend:	da	“Blend”/sweep finger under sounds	/da/
Write:	dab	“Sound”/point	/b/
Blend:	dab	“Blend”/sweep finger under word (as slowly as necessary to help students blend)	/dab/ (as slow as necessary)
Read:	dab	“What word?”/sweep straight across	/dab/ (naturally)

After Mr. Kang feels confident his students remember the vowels and are blending well, he transitions to blending with slightly less support. Now, he writes the words and points to the sounds. The students only blend when they reach the end of the word. It works this way:

Teacher Action	Written on the Board	Teacher Talk/Action	Students Say...
Write:	lid		
Point	lid	Point to each sound and say “sound”	/l/.../i/.../d/
Blend:	lid	“Blend”/sweep finger under word	/lid/
Read:	lid	“What word?”/sweep straight across	/lid/

When the students have blended all of the words, Mr. Kang asks his students to read two sentences. (The sad lad did not have a cat. Did Dad sit on the lid?) He underlines each high frequency word, points to them on the class word wall, and has students pronounce them. Then, the class reads the sentences together slowly to blend the words as they read. Mr. Kang guides this instruction by providing oral support with his voice. To help students develop independence, he also has the students reread the sentences to a partner and on their own, without his assistance.

Once students have practiced blending and writing words using the letter-sounds that they have learned, you can provide them practice with varied types of constructive phonics practice. A word of caution: many teachers feel the need to design creative ways for students to practice phonics skills in an attempt to increase student engagement. This is largely unnecessary and can in fact be counterproductive for students. Your best bet is to use a predictable instruction sequence that includes introducing the new

sound-spelling correspondence, providing practice blending and write words that contain the correspondences students have been taught, and creating tasks in which students have to think critically about what they've learned. Two options for constructive phonics practice are:

- Students **sort words according to sound-spelling correspondence or spelling pattern.** Teachers give students word cards to sort individually or with a partner, or simply list words on the board and guide students to search for common patterns in whole class practice. From these sorts, students can organize words that contain the same rime patterns (the *-id* in *did*) into "families". For instance, *did*, *lid*, and *slid* could be grouped as a word "family."
- Students can **build words with letter cards that use learned correspondences or patterns.** To build words, the teacher gives a series of instructions that require the student to rearrange letters to spell a chain of words that use the patterns students have learned. A typical chain might include *dab*, *dad*, *did*, *lid*, *slid*, and *slab*, requiring students to use six letter cards in the exercise. The teacher begins by asking students to use their letter cards to spell *dab*, and continues to cue students to make subtle changes to the target word to build a new one. For instance, the teacher might say, "You've built *dab*. Now change the /b/ to /d/. What's the new word?" The students respond, "*Dad!*" The teacher continues, "And how did the final consonant change?" The students answer, "Change the *b* to a *d*." Alternatively, the teacher might say, "You've built *dab*. Now we'll change the word to *dad*. Repeat the word with me: *Dad!* Now say the sounds with me. /D...ă...d/. Great, now build the word with your letter cards. [Pauses to let students build the word.] Let's spell the word together." Many teachers find *Making Words* by Patricia Cunningham or a modified version thereof to be excellent practice of this kind.

Using the Word Wall to Teach High Frequency Words

In addition to instruction on how to decode words, students must be taught to recognize those words that cannot be determined from sound-spelling correspondences, which include many of the 100 most frequently used words in the English language (like *said*, *does*, and *of*). In elementary school classrooms, these high frequency words are often introduced slowly and posted on words walls as a reference when reading and spelling. It is useful to reference these words frequently so students are highly familiar with them and their spellings. It is also a good idea to include the names of all the students in the class on this wall so students can use them in writing and because names tend to be non-decodable.

Amazing, isn't it? We have over a half-million words to communicate with, but half of everything that we write and read depends on only 0.02 percent—on only those 100 most frequent words.

Frank May, Author
*Reading As Communication*⁶³

Sometimes teachers expand the use of word walls to include students' weekly spelling words and less common words they want students to be able to spell.⁶⁴ We do not advise this use of the word wall. Students should be able to spell decodable words if they have been taught sound-spelling correspondences and spelling patterns; providing access to them on the word wall only increases students' dependence on "whole word" cues rather than phonic analysis. Students who depend on phonic analysis in reading and spelling are generally better readers and spellers because they can use their knowledge of the English phonics system to learn new words. Instead of allowing students to use word walls for spelling, refer

⁶³ May, Frank B. *Reading As Communication: Helping Children Write and Read*, 6th edition. New York: Merrill/Prentice Hall, 2002.

⁶⁴ We also caution the use of the word wall for vocabulary words. The high frequency word wall should focus on those words alone; it makes them an easy reference for a singular purpose. Vocabulary words are typically thematic and are best placed near theme bulletin boards to encourage their use when students refer to the concepts on that board. A vocabulary "word bank" is a good substitution for adding those words to the word wall.

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them to phonics charts or sound-spelling cards you have posted. Ideally, your reading program will include charts or cards to help students spell. If not, you should make your own charts that include the phoneme, its most common spellings, and a related mnemonic device.

For more information about creating a high frequency word wall, see “Fry’s 300 Instant Sight Words” in the **Elementary Literacy Toolkit** (pp. 34-35); this Toolkit can be found online at the Resource Exchange on TFANet. ✖

Teaching Complex Spelling Patterns and Conventions Effectively

As students progress through elementary school, they will learn increasingly complex spelling patterns that are used less frequently in the English language. In Part One, we explored many of those patterns in great detail. Before we examine how to present appropriate phonics instruction to older elementary students, consider this idea. We teach students complex spelling patterns over several years so they build a mental stock of information about the options for pronunciation or spelling. Knowing many spelling *patterns* is more helpful than knowing many *rules* that constantly interfere with one another. In determining how to pronounce the word *field*, students must have learned that *ie* is a spelling for both /ī/ as in *pie* and /ē/ as in *field*. They can then make a reasonable choice based on their stock of information.

For second through fifth grade students who are learning more complex spelling patterns, the instructional sequence is slightly different but just as direct and explicit as our earlier examples. To teach your fifth grade students the *y* spelling of /ī/ in the middle of a word of Greek origin for instance (such as *gym*), you need not introduce the short *i* sound. Rather, you would explain to students that they are going to learn a new way to spell /ī/, and they might have noticed this spelling in their reading already. The rest of the instructional sequence might look something like this:

Guidance for Teaching Older, Struggling Readers

Older students may need review of the alphabetic principle, as they may never have fully grasped the consistency with which letters produce specific sounds. Students who do not understand the letter-sound connection tend to guess at words after reading the first couple of letters, thinking that the remainder of the word provides little information to help decipher the pronunciation. It is important that students believe that print can help them read words, even if it is not always consistent. Otherwise, they will continue to guess at any word that is not immediately recognizable.

- Provide your students with a **clear, student-friendly explanation of the spelling pattern**. You might say, “You all have learned that some of our English words come from the Greek language. Some of the vocabulary words that we have learned in our science units, like *biology* and *photosynthesis*, are good examples. The pattern that we are going to work with today also comes from the Greek language. The spelling pattern is that *y* in the middle of a Greek word says /ī/. When you see a *y* in the middle of a word, it is often saying our short *i* sound. Today we are going to add this spelling pattern to your mental files so that you can read and spell words that contain it.”
- Share **words that contain the targeted spelling pattern** (*gym*) and challenge students to think of words they have read that have the *y* spelling of /ī/ in the middle. Make a list of the words that you and your students come up with. (A list for this pattern might include *gym*, *mystery*, *gymnasium*, *mysterious*, *photosynthesis*, and *chlorophyll*.)
- Guide your students to **blend** the words that contain the targeted pattern, syllable by syllable. For example, your students would blend /mis...ter...ee/. This will likely prove challenging for your students at first, but over time it will dramatically improve their ability to decode multi-syllable words.
- **Dictate** a few sentences for students to write or ask them to create sentences for their classmates that contain words with the targeted spelling. (An example sentence is: *We prefer*

to spend time in the gymnasium because we are allowed to play exciting games like dodge ball and floor hockey.)

- Instruct your students to **notice when they read words with the targeted pattern** and to record and share them with classmates, perhaps at the end of word study each day.

As you can see, though the content of our word study instruction changes dramatically over the course of a child's elementary school career, the methods that we use to teach that content remain stable and predictable. We begin by **introducing the sound-spelling correspondence or pattern** (in the way explained above), **blending sounds to form words** (as described), and **providing opportunities for constructive practice** (such as sorting or building words). It may surprise you that the methods by which we teach phonics are so straightforward, especially given the complexity of the English language. But research studies have shown again and again these methods work for all students, and are especially effective for students who are lagging behind in their ability to read.

Some teachers question whether students will remain engaged in this type of direct, explicit word study instruction. Our answer is *yes!* Teachers who are consistent in both the language and procedures of word study find that their students crave that structure and come to appreciate knowing what is expected of them, academically and procedurally, day after day. Further, and perhaps more importantly, students who receive this level of explicit phonics instruction are more successful as readers, and students who experience success with a task are most typically engaged and eager to participate in it. Though there is no instructional harm in supplementing your instruction with word study games or activities in literacy centers, creative forms of practice are no substitute for the direct instruction and repetitive practice that students require if they are to learn to decode.

Teaching Word and Structural Analysis

As students begin to grasp spelling patterns and are able to use them to decode effectively, it's time to add another layer to their understanding of the English language. As we explored in Part One, the spelling of many of our words is influenced by morphology—the way that meaningful units of language, like prefixes or suffixes, combine to form words. Though we will consider in detail how to help students use morphemic analysis to determine word meaning in Chapter Six, we will briefly explain what students need to understand about morphemes to help them decode and provide an example of morphemic instruction in a fourth grade classroom.

In What Grade Levels Do I Teach Word and Structural Analysis?

First graders should learn some common contractions and compound words. In **second grade and third grade**, teach students to use the past tense and plural spelling patterns to assist in pronunciation and spelling, along with more advanced contractions and compound words. **Fourth and fifth grade students** should learn to use knowledge about syllable types to decode lengthy words. They should also learn to use prefixes, suffixes, and common Greek and Latin roots for the purpose of decoding as well.

Whether you are teaching second graders the *-ed* ending or fifth graders the Latin root *terr*, guide students to look within a lengthy word for recognizable chunks that can help them to decode. Students will become much more efficient word solvers if they can break a long word like *uncomplicated* into smaller pieces, using knowledge of prefixes, suffixes, and syllables along the way.

To gain insight into the specifics of instruction in word and structural analysis, consider the following example:

The word study lesson in Ms. Washington's fourth grade class focuses on recognizing common Latin roots and using them to help in decoding long words. Ms. Washington begins by explaining the concept of Latin roots. She says, "Many of our words come from

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a language called Latin. In Latin, people added prefixes and suffixes to roots to make new words. Because many of our English words come from Latin, we can look for Latin roots as we try to break long words into smaller chunks. Today, we will learn a new Latin root to help us.”

Ms. Washington writes *struct* on the board. She explains, “This is the Latin root *struct*. It means build. Many words related to building have this root. Can you think of any?” Students share *structure*. Ms. Washington writes *structure* and *construction* on the board. She smiles and continues, “Good, let me write some other words with this root.” She writes *construct*, *destructive*, *destructively*, *instructions*, and *restructure*.

Then Ms. Washington says, “Now, we are going to blend these words. Use the prefixes, suffixes and the root *struct* to help you pronounce the words.” She pauses with her finger by each word for a moment, giving students time to think of the word. She sweeps her finger in an arc under the words to have students blend the parts of the words to read them. About half of her students pronounce *destructive* incorrectly. Ms. Washington says, “Let’s pronounce this syllable by syllable.” She covers all of the syllables but *de* with a sticky note. She sweeps her finger under the syllable. Students: “/dē/.” As she moves the sticky note to reveal the next syllable, she says, “Now remember that part; we’ll come back to it.” She continues the same way for *struct* and *tive*. “Now, let’s say all the syllables together. She sweeps her finger under each syllable individually and has students say them: “/dē...struct...tiv/.” She then sweeps her finger under the entire word: “/dēstructiv/.” She runs her finger straight across under the word to indicate students should pronounce it naturally. She comments, “I like how you were able to say the syllables and then blend them into a whole word.” She continues this process with the rest of the words. After students have practiced blending all of the words with the targeted root, Ms. Washington says, “When you are reading and get to a long word that might stump you, remember to look for prefixes, suffixes, and roots that you know, and use those chunks to help you pronounce the tricky word correctly.”

Remember that we teach students these meaningful word parts to increase their stock of information so that they will be able to make intelligent choices when decoding and pronouncing unfamiliar words. After the sample lesson described above, Ms. Washington’s students will have one more option to consider when tackling a complex word.

Correcting Student Errors

Even with direct and explicit instruction in the building blocks of literacy, students who are learning to read will make mistakes in their pronunciation and spelling of words. Effective instruction in the building blocks of reading must include effective correction of student errors. In this section, we will briefly describe a few simple techniques for providing corrective feedback.

Appropriate feedback is important in all parts of the balanced literacy block. Students need us to tell them when they make mistakes so that they will not make them again. While it may be difficult for us as teachers and may make us uncomfortable, it is important that correct information be transmitted in the classroom. If we allow errors to go uncorrected, the remainder of the class either thinks you did not hear the mistake or thinks what the student said was correct. If the latter is true, a serious problem has been created. It takes several repetitions to “unlearn” incorrect information before the brain can properly process the correct information. To avoid this eventuality, we need to provide immediate corrective feedback.

When students make errors, you should address them explicitly. The LiPS Program uses the following structure:

- Identify something correct in the student’s response.
- Provide direct instruction to correct the error—the mistake is a sign that you need to explain the concept again.
- Provide a choice question that distinguishes the original error and the correct response.

Here is an example. When asked to pronounce the word *bed*, a first grade student says, “bet.” The teacher responds, “In this word, I agree that the *b* says /b/ and the *e* says /ĕ/. You said that word was /bet/. The last sound was /t/, but I see the letter *d* at the end of the word. What sound does a *d* make, /t/ or /d/?” Student: /d/. Teacher: “I agree. So, is the word /bet/ or /bed/?” Student: “/Bed/.”

There are several advantages to this procedure. First, students do not feel bad when they make a mistake because you are immediately agreeing with something they said. (Remember that student errors are generally based on misunderstandings; as they are not totally random, you will be able to find something correct in the response). Second, you address the error explicitly and do not make the student search for information he or she has not yet mastered. (If the student knew the material, the mistake would not have happened.) Third, the student ultimately produces the correct response by receiving a choice and choosing correctly. This way, the teacher makes the student responsible for the information, but with a much lower cognitive demand. By correcting student errors in this fashion, you ensure that students are continuing to receive accurate information to add to their mental stock that will help them as they learn to decode and read independently.

Review of Part Two

Part two of this text explained the methods that you will use to teach your students the building blocks of literacy. We examined how to build your students’ **book and print awareness** by modeling appropriate reading behaviors using a Big Book that all children can see; ways of developing **phonological and phonemic awareness** in your students by engaging your students in tasks that require them to hear and manipulate sounds; methods through which to teach **phonics and the alphabetic principle**, including systematically teaching sound-spelling correspondences and spelling patterns and providing opportunities for active practice in decoding; and increasing students’ **word and structural analysis** skills so that they are able to use meaningful word parts to help them read. Additionally, we discovered that effective phonics instruction does not require students to memorize rules; rather, it builds up their mental stock of information about **reliable spelling and reading patterns** so that they have options from which to choose as they decode words. In the final section, we will bring all of this information together and take a detailed look at a research-based sequence in which we teach these discrete skills.

III. Bringing It All Together – A Research-Based Scope and Sequence

In Parts One and Two, we explored the construction of English speech and print in great detail, along with the research-based methods that we will use so that our students acquire the fundamental skills that underlie the ability to read and write. In this section, we will examine a suggested scope and sequence that can guide your instruction in the building blocks of literacy. To be clear, if your school provides you with a reading program that contains a scope and sequence, use it. If it does not, then you may follow the scope and sequence provided below. Additionally, you may use this scope and sequence to help you provide assistance and remediation to struggling, older readers who may not have mastered sound-spelling correspondences and spelling patterns taught in first grade. Remember that once you have introduced a new skill, you must review it frequently throughout the remainder of the school year.

The Building Blocks of Literacy

We will begin by examining the overarching principles that explain why certain skills are taught before others (the detailed information presented in Part One will prove useful as you consider these principles). Then, we will present a suggested scope and sequence for Kindergarten through fifth grades.

Guiding Principles

Four basic principles guide us as we consider the order in which to teach these fundamental skills:

- (1) We begin by giving our students prerequisite knowledge.** Research tells us that before children can access sound-spelling relationships to decode, they must be able to hear sounds within our spoken language. After all, what is the use of knowing that *p* represents the /p/ sound if students are not able to hear that individual sound in *play*, *stomping*, or *jump*? To this end, one of our first tasks as Kindergarten and first grade teachers is to build our students' awareness of sounds in spoken language. Beyond these primary grades, we assess our students' phonological awareness and provide individualized instruction to students whose skills in this area are weak.
- (2) We teach our students the most useful information first.** We know that some letters are used more often than others. So that our students will be able to decode many words very quickly, we teach the letters that most often appear in words first. These letters (like *s*, *a*, and *t*) make up the first two groups of sound-spelling correspondences in our scope and sequence below. We teach them well before letters that appear in fewer words, such as *x*, *qu*, and *z*.
- (3) We begin by teaching the most reliable patterns and move to those that are less reliable over time.** One quality of excellent phonics instruction is that students learn to use generally reliable patterns to help them read and spell. To build our students' growing understanding of these patterns, we teach the most reliable spelling patterns first. For example, given that the long /ā/ sound (as in *game*) can be spelled in eight different ways it makes sense to teach those long /ā/ sound spelling patterns that are most reliable first. For this reason, we introduce our first grade readers to the spelling pattern *a consonant e* (*a_e* as in *game*) before the less reliable pattern *igh* (as in *weight*).
- (4) We teach what is simple, and then move to the complex.** Think back to what we learned about the development of the English phonics system over time. Do you remember what has made it so complex? The evolution of English—from simple Anglo-Saxon, to more complex assimilations of French and Latin, to the final addition of some Greek roots—has resulted in a modern English language that allows for numerous ways to spell one sound. Incredibly, the way in which children develop the ability to read and spell mirrors how the language itself developed! For this reason, we teach simple sound-spelling correspondences first (our Anglo-Saxon influences) and move to more complex patterns and morphemic units (our Latin and Greek influences) as children's skills develop. Likewise, this principle explains why we structure our phonological awareness in a way that asks children to hear and pronounce simpler sounds and combinations of sounds, before more complex ones, as you see reflected in the scope and sequence below.

With these four principles in mind, take a look at the suggested scope and sequence for Kindergarten-fifth grade.

Grade Level & Time of Year	Phonological and Phonemic Awareness ⁶⁵	Letter Name & Identification	Sound-Spelling Correspondence																																																												
<p>Kindergarten, Days 1-70</p>	<p>Listen attentively to different types of sounds</p> <p>Listen to rhymes</p> <p>Recite rhymes</p> <p>Anticipate rhyming words (when singing or reciting rhymes, like “Down By the Bay”)</p> <p>Generate rhyming words</p> <p>Hear and distinguish between short and long words</p> <p>Hear and count words in sentences</p> <p>Clapping syllables in familiar words</p>	<p>Identify, name, and write all 26 alphabet letters</p>	<p>None</p>																																																												
<p>Kindergarten, Days 71-180</p>	<p>All of the above, plus:</p> <p>Recognize and use sentences to express a complete thought</p> <p>Recognize that a sentence is made up of a combination of individual words</p> <p>Recognize that a sentence is meaningful because of its words and the order in which they are spoken</p> <p>Put syllables together to make a word</p> <p>Recognize that words contain individual sounds</p> <p>Repeat individual sounds</p> <p>Isolate initial sounds</p> <p>Determine which word in a group has an “odd” sound</p> <p>Delete particular sounds in a word</p> <p>Add particular sounds to a word</p> <p>Segment sounds—pull apart each sound in a word</p>	<p>Review all 26 alphabet letter names</p>	<table border="1"> <thead> <tr> <th colspan="2" data-bbox="1149 808 1408 840">Group One</th> </tr> </thead> <tbody> <tr> <td data-bbox="1149 840 1312 871">/p/</td> <td data-bbox="1312 840 1408 871">p</td> </tr> <tr> <td data-bbox="1149 871 1312 903">/s/</td> <td data-bbox="1312 871 1408 903">s</td> </tr> <tr> <td data-bbox="1149 903 1312 934">/ă/ as in <i>pat</i></td> <td data-bbox="1312 903 1408 934">a</td> </tr> <tr> <td data-bbox="1149 934 1312 966">/t/</td> <td data-bbox="1312 934 1408 966">t</td> </tr> <tr> <td data-bbox="1149 966 1312 997">/l/</td> <td data-bbox="1312 966 1408 997">l</td> </tr> <tr> <td data-bbox="1149 997 1312 1029">/b/</td> <td data-bbox="1312 997 1408 1029">b</td> </tr> <tr> <td data-bbox="1149 1029 1312 1060">/i/ as in <i>tip</i></td> <td data-bbox="1312 1029 1408 1060">i</td> </tr> <tr> <td data-bbox="1149 1060 1312 1092">/d/</td> <td data-bbox="1312 1060 1408 1092">d</td> </tr> <tr> <td data-bbox="1149 1092 1312 1123">/k/</td> <td data-bbox="1312 1092 1408 1123">c</td> </tr> <tr> <th colspan="2" data-bbox="1149 1123 1408 1155">Group Two</th> </tr> <tr> <td data-bbox="1149 1155 1312 1186">/m/</td> <td data-bbox="1312 1155 1408 1186">m</td> </tr> <tr> <td data-bbox="1149 1186 1312 1218">/r/</td> <td data-bbox="1312 1186 1408 1218">r</td> </tr> <tr> <td data-bbox="1149 1218 1312 1249">/ĕ/ as in <i>pet</i></td> <td data-bbox="1312 1218 1408 1249">e</td> </tr> <tr> <td data-bbox="1149 1249 1312 1281">/f/</td> <td data-bbox="1312 1249 1408 1281">f</td> </tr> <tr> <td data-bbox="1149 1281 1312 1312">/g/</td> <td data-bbox="1312 1281 1408 1312">g</td> </tr> <tr> <td data-bbox="1149 1312 1312 1344">/n/</td> <td data-bbox="1312 1312 1408 1344">n</td> </tr> <tr> <td data-bbox="1149 1344 1312 1375">/k/</td> <td data-bbox="1312 1344 1408 1375">k</td> </tr> <tr> <td data-bbox="1149 1375 1312 1407">/ŭ/ as in <i>bug</i></td> <td data-bbox="1312 1375 1408 1407">u</td> </tr> <tr> <th colspan="2" data-bbox="1149 1407 1408 1438">Group Three</th> </tr> <tr> <td data-bbox="1149 1438 1312 1470">/h/</td> <td data-bbox="1312 1438 1408 1470">h</td> </tr> <tr> <td data-bbox="1149 1470 1312 1501">/j/</td> <td data-bbox="1312 1470 1408 1501">j</td> </tr> <tr> <td data-bbox="1149 1501 1312 1533">/w/</td> <td data-bbox="1312 1501 1408 1533">w</td> </tr> <tr> <td data-bbox="1149 1533 1312 1564">/ō/ as in <i>hog</i></td> <td data-bbox="1312 1533 1408 1564">o</td> </tr> <tr> <td data-bbox="1149 1564 1312 1596">/v/</td> <td data-bbox="1312 1564 1408 1596">v</td> </tr> <tr> <td data-bbox="1149 1596 1312 1627">/y/</td> <td data-bbox="1312 1596 1408 1627">y</td> </tr> <tr> <th colspan="2" data-bbox="1149 1627 1408 1659">Group Four</th> </tr> <tr> <td data-bbox="1149 1659 1312 1690">/kw/</td> <td data-bbox="1312 1659 1408 1690">qu</td> </tr> <tr> <td data-bbox="1149 1690 1312 1722">/ks/</td> <td data-bbox="1312 1690 1408 1722">x</td> </tr> <tr> <td data-bbox="1149 1722 1312 1753">/z/</td> <td data-bbox="1312 1722 1408 1753">z</td> </tr> </tbody> </table>	Group One		/p/	p	/s/	s	/ă/ as in <i>pat</i>	a	/t/	t	/l/	l	/b/	b	/i/ as in <i>tip</i>	i	/d/	d	/k/	c	Group Two		/m/	m	/r/	r	/ĕ/ as in <i>pet</i>	e	/f/	f	/g/	g	/n/	n	/k/	k	/ŭ/ as in <i>bug</i>	u	Group Three		/h/	h	/j/	j	/w/	w	/ō/ as in <i>hog</i>	o	/v/	v	/y/	y	Group Four		/kw/	qu	/ks/	x	/z/	z
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⁶⁵ Adapted from Adams, Marilyn Jager, et al., *A Classroom Curriculum: Phonemic Awareness in Young Children*. Baltimore, MD: Brookes Publishing Co., 1998.

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Grade Level & Time of Year	Letter Name & Identification, Phonemic and Phonological Awareness ⁶⁶	Sound-Spelling Correspondence	Spelling Patterns, Conventions or Morphemes																	
Grade 1, Days 1-10	Review all 26 alphabet letter names Review phonological and phonemic awareness tasks (see those listed in Kindergarten, Days 1-70, above)	None	None																	
Grade 1, Days 11-20	Review phonological and phonemic awareness tasks (see those listed in Kindergarten, Days 71-180, above)	Group One	None																	
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Grade 1, Days 21-30	Review phonological and phonemic awareness tasks (see those listed in Kindergarten, Days 71-180, above)	Group Two	None																	
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Grade 1, Days 31-40	Review phonological and phonemic awareness tasks (see those listed in Kindergarten, Days 71-180, above)	Group Three	None																	
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Grade 1, Days 41-50	Review phonological and phonemic awareness tasks (see those listed in Kindergarten, Days 71-180, above)	Group Four	/ā/ spelled <i>a</i> and <i>a_e</i> (as in <i>lady</i> and <i>fame</i>) /ō/ spelled <i>o</i> and <i>o_e</i> (as in <i>motor</i> and <i>phone</i>)																	
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Grade 1, Days 51-60	Review phonological and phonemic awareness tasks (see those listed in Kindergarten, Days 71-180, above)	Group Six		/ē/ spelled <i>e</i> and <i>ee</i> (as in <i>rewind</i> and <i>feed</i>) /ī/ spelled <i>i</i> and <i>i_e</i> (as in <i>miner</i> and <i>time</i>) /ū/ spelled <i>u</i> and <i>u_e</i> (as in <i>future</i> and <i>cute</i>)
		/ng/ /ar/	ng ar	
Grade 1, Days 61-70	Review phonological and phonemic awareness tasks (see those listed in Kindergarten, Days 71-180, above)	Group Seven		/ī/ spelled <i>_y</i> , <i>igh</i> , and <i>_ie</i> (as in <i>sky</i> , <i>light</i> , and <i>pie</i>)
		/n/ /r/ /er/	kn wr er, ir, ur	
Grade 1, Days 71-80	Review phonological and phonemic awareness tasks (see those listed in Kindergarten, Days 71-180, above)	Group Eight		/ā/ spelled <i>_ay</i> and <i>ai_</i> (as in <i>May</i> and <i>pain</i>) /ē/ spelled <i>ea</i> , <i>_y</i> , and <i>_ey</i> (as in <i>each</i> , <i>sunny</i> , and <i>key</i>) /ō/ spelled <i>oa</i> and <i>_ow</i> (as in <i>boat</i> and <i>slow</i>)
		/l/	_le	
Grade 1, Days 81-90	Review phonological and phonemic awareness tasks (see those listed in Kindergarten, Days 71-180, above)	Group Nine		/ō/ spelled <i>_oe</i> (as in <i>toe</i>) /ū/ spelled <i>_ue</i> (as in <i>blue</i>)
		/j/ /s/ /or/	ge, gi ci or, ore	
Grade 1, Days 91-100	Review phonological and phonemic awareness tasks as needed (see those listed in Kindergarten, Days 71-180, above)	Group Ten		/oi/ spelled <i>oi_</i> and <i>_oy</i> (as in <i>boil</i> and <i>toy</i>) /ow/ spelled <i>ou_</i> and <i>ow</i> (as in <i>out</i> and <i>plow</i>)
		/f/	ph	
Grade 1, Days 101-110	Review phonological and phonemic awareness tasks as needed (see those listed in Kindergarten, Days 71-180, above)	Group Eleven		/ū/ spelled <i>_ew</i> (as in <i>flew</i>) /aw/ spelled <i>au_</i> and <i>aw</i> (as in <i>haul</i> and <i>claw</i>)
		/m/ /v/	mb ve	
Grade 1, Days 111-120	Review phonological and phonemic awareness tasks as needed (see those listed in Kindergarten, Days 71-180, above)	None		/oo/ spelled <i>oo</i> , <i>u</i> , and <i>u_e</i> (as in <i>cool</i> , <i>tutor</i> , and <i>flute</i>)
Grade 1, Days 121-130	Review phonological and phonemic awareness tasks as needed (see those listed in Kindergarten, Days 71-180, above)	Group Twelve		Short /oo/ spelled <i>oo</i> (as in <i>brook</i>)
		/ĕ/ as in <i>head</i>	ea	
Grade 1, Days 131-140	Review phonological and phonemic awareness tasks as needed (see those listed in Kindergarten, Days 71-180, above)	None		Long /oo/ spelled <i>_ue</i> and <i>ew</i> (as in <i>sue</i> and <i>flew</i>)
Grade 1, Days 141-150	Review phonological and phonemic awareness tasks as needed (see those listed in Kindergarten, Days 71-180, above)	Group Thirteen		None Simple contractions (like <i>don't</i> or <i>I'm</i>)
		/j/ /s/	gy cy	
Grade 1, Days 151-160	Review phonological and phonemic awareness tasks as needed (see those listed in Kindergarten, Days 71-180, above)	None		/ē/ spelled <i>_ie_</i> (as in <i>chieĀ</i>)

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Grade 1, Days 161-170	Review phonological and phonemic awareness tasks as needed (see those listed in Kindergarten, Days 71-180, above)	Group Fourteen		/shun/ spelled <i>-tion</i> (as in <i>nation</i>)
		/ng/	n	
Grade 1, Days 171-180	Review phonological and phonemic awareness tasks as needed (see those listed in Kindergarten, Days 71-180, above)	None		None

Keep in mind that we do not expect first graders to spell all of the patterns that they have learned with complete accuracy. However, we should continue to improve students' spelling by referring them to the patterns so that they will accumulate knowledge that will lead eventually to conventional spelling.

Grade Level & Time of Year	Sound-Spelling Correspondence		Spelling Patterns, Conventions or Morphemes
Grade 2, Days 1-20	/p/ /s/ /ă/ as in <i>pat</i> /t/ /l/ /b/ /i/ as in <i>tip</i> /d/ /k/ /m/ /r/ /ĕ/ as in <i>pet</i> /f/ /g/ /n/ /k/ /ŭ/ as in <i>bug</i> /h/ /w/ /ŏ/ as in <i>hog</i> /v/ /y/	p s a t l, ll b i d c m r e f, ff g n k, ck u h w o v y	/ā/ spelled <i>a_e</i> (as in <i>fame</i>) /ō/ spelled <i>o_e</i> and <i>_oe</i> (as in <i>phone</i> and <i>toe</i>) /ē/ spelled <i>e_e</i> and <i>ee</i> (as in <i>theme</i> and <i>feed</i>) /ī/ spelled <i>i_e</i> and <i>_ie</i> (as in <i>time</i> and <i>tie</i>) /ū/ spelled <i>u_e</i> and <i>_ue</i> (as in <i>cute</i> and <i>cue</i>) Word Endings (<i>-ing</i>)
Grade 2, Days 21-40	/d/ /t/ /j/ /kw/ /ks/ /z/ /s/ /ch/ /th/ /sh/ /wh/ /f/	-ed -ed j, -dge qu x z, _s, zz ss, ce ch, tch th sh wh ph	/ā/ spelled <i>_ay</i> and <i>ai_</i> (as in <i>May</i> and <i>pain</i>) /ē/ spelled <i>ea, _y,</i> and <i>_ey</i> (as in <i>each, sunny,</i> and <i>key</i>) /ō/ spelled <i>oa</i> and <i>_ow</i> (as in <i>boat</i> and <i>slow</i>) Simple compound words (<i>doghouse</i>) Closed syllables in two syllable words

Grade Level & Time of Year	Sound-Spelling Correspondence		Spelling Patterns, Conventions or Morphemes
Grade 2, Days 41-60	/ng/ /ar/ /n/ /r/ /er/ /j/ /s/ /or/	ng ar kn wr er, ir, ur ge, gi ci or, ore	Open syllables in two syllable words /ā/ spelled <i>a</i> (as in <i>lady</i>) /ō/ spelled <i>o</i> (as in <i>motor</i>) /ē/ spelled <i>e</i> (as in <i>rewind</i>) /ī/ spelled <i>i</i> (as in <i>miner</i>) /ū/ spelled <i>u</i> (as in <i>future</i>) /ū/ spelled <i>_ew</i> (as in <i>flew</i>) /ē/ spelled <i>_ie_</i> (as in <i>chieŕ</i>) /ī/ spelled <i>y</i> and <i>igh</i> (as in <i>sky</i> and <i>light</i>) /oi/ spelled <i>oi_</i> and <i>_oy</i> (as in <i>boil</i> and <i>toy</i>) /ow/ spelled <i>ou_</i> and <i>ow</i> (as in <i>out</i> and <i>plow</i>)
Grade 2, Days 61-80	/l/ /m/ /v/	_le mb ve	Open and Closed Syllables /aw/ spelled <i>au_</i> and <i>aw</i> (as in <i>haul</i> and <i>claw</i>) Short /oo/ spelled <i>oo</i> (as in <i>brook</i>) /oo/ spelled <i>oo</i> , <i>u</i> , and <i>u_e</i> (as in <i>cool</i> , <i>tutor</i> , and <i>flute</i>) Contractions (like <i>we're</i> or <i>won't</i>) Word Endings (/shun/ spelled <i>-tion</i>)
Grade 2, Days 81-100	/j/ /s/	gy cy	Open and Closed Syllables /ē/ spelled <i>ea</i> as in <i>head</i> Long /oo/ spelled <i>_ue</i> and <i>ew</i> (as in <i>sue</i> and <i>flew</i>) Word Endings (<i>-er</i> , <i>-est</i> , /cher/ spelled <i>-ture</i>) Homophones (<i>to</i> , <i>too</i> , <i>two</i> ; <i>there</i> , <i>their</i>)
Grade 2, Days 101-120	/ng/ /ol/	n al (as in <i>fall</i>)	Word Endings (<i>-ly</i>) Hyphenated words
Grade 2, Days 121-140	/s/	tl (as in <i>whistle</i>)	Add an <i>e</i> to distinguish words that end with a plural form from words that merely end with the /s/ sound (<i>mouse</i> , <i>lease</i>). Prefixes (<i>un-</i> , <i>re-</i>)
Grade 2, Days 141-160	None		Schwa (the /u/ in <i>nation</i>) Prefixes (<i>pre-</i> , <i>dis-</i>) Word Endings: (<i>-ous</i>)
Grade 2, Days 161-180	None		/aw/ spelled <i>ough</i> and <i>ough</i> (as in <i>caught</i> and <i>thought</i>)

The Building Blocks of Literacy

Grade Level & Time of Year	Sound-Spelling Correspondence	Spelling Patterns, Conventions or Morphemes
Grade 3, Days 1-30	Short Vowels Consonant Digraphs	Long Vowel Spelling Patterns Vowel Diphthongs and Digraphs (/ow/, /aw/, /oi/, long /oo/, short /oo/) More complex compound words (<i>fifty-one</i>) Word endings: (-ed, -ing, -s, -ful, -er, -ly, -tion)
Grade 3, Days 31-60	/l/ spelled <i>_le</i> /m/ spelled <i>mb</i> /sk/ spelled <i>sch</i>	Open and Closed Syllables Vowel Diphthongs and Digraphs R-Controlled Vowels Plural form of words ending in <i>y</i> Prefixes: (<i>re-</i> , <i>un-</i> , <i>dis-</i>) Word endings: (-tion, -ous, -ment)
Grade 3, Days 61-90	/or/ spelled <i>ore</i> /n/ spelled <i>kn</i> and <i>gn</i>	/ā/ spelled <i>ei</i> , <i>eigh</i> , <i>_ey</i> (as in <i>vein</i> , <i>weigh</i> , <i>they</i>) Prefixes: (<i>pre-</i> , <i>mis-</i> , <i>de-</i>) Schwa (the /u/ in <i>nation</i>) Word endings: (-ness, -less)
Grade 3, Days 91-120	/wuh/ spelled <i>wo</i> (as in <i>wonder</i>) /s/ spelled <i>sc</i>	/aw/ spelled <i>ough</i> and <i>ough</i> (as in <i>caught</i> and <i>thought</i>) short /oo/ spelled <i>u</i> (as in <i>pull</i>) Prefixes: (<i>bi-</i> , <i>trans-</i>) Word endings: (-ial, -ic, -able, -ible)
Grade 3, Days 121-150	waw/ spelled <i>wa</i> (as in <i>wander</i>)	/ē/ spelled <i>ei</i> and <i>_ey</i> (as in <i>receive</i> and <i>turkey</i>) Word endings: (-ion, -ian, , ative, ation)
Grade 3, Days 151-180	/m/ spelled <i>lm</i> (as in <i>calm</i>)	/oo/ spelled <i>ou</i> (as in <i>bouquet</i>) Word endings: (-tial, -sion says /zhun/)

Grade Level & Time of Year	Sound-Spelling Correspondence	Spelling Patterns, Conventions or Morphemes
Grade 4	Review and remediate sound-symbol correspondences as necessary (often with small groups of struggling readers)	<p>Review and remediate previously taught spelling patterns as necessary (often with small groups of struggling readers)</p> <p><i>X</i> says /z/ at the beginning of a word (xylophone)</p> <p><i>X</i> says /gz/ in the middle of a word</p> <p><i>QUE</i> says /k/ in the middle or end of a word</p> <p><i>IQUE</i> says /k/ in the middle or at the end of a word (<i>antique</i>)</p> <p>Common Latin roots, prefixes, and suffixes (see the table on page 103 for most frequently used prefixes and suffixes)</p> <p>Complex suffixes (<i>-ous, -ia, -ian, -ion, -ious, -ient, -ience, -tion, -tious, -tient, -tience, -tio, -sion, -cion, -cient, -cient</i>)</p>

Grade Level & Time of Year	Sound-Spelling Correspondence	Spelling Patterns, Conventions or Morphemes
Grade 5	Review and remediate sound-symbol correspondences as necessary (often with small groups of struggling readers)	<p>Review and remediate previously taught spelling patterns as necessary (often with small groups of struggling readers)</p> <p><i>Y</i> says /i/ in the middle of a word (of Greek origin) (<i>mystery</i>)</p> <p>Additional Latin roots, prefixes, and suffixes, as well as the few Greek roots that appear in math or science content</p> <p>Other Language Influences (American Indian, Spanish, French, German sources of words)</p>

Conclusion

As we have seen, the building blocks of literacy are both critical and complex. This chapter had two broad purposes. First, we aimed to provide you with a wealth of background information about the structure of the written and spoken English language that will prepare you to teach your Kindergarten through fifth grade students to read.

- Understanding **phonetics**—how individual consonant and vowel sounds are produced—helps us to provide precise information as we teach students to pronounce new sounds or help struggling students articulate correctly a sound they have already learned.
- The **alphabetic principle** is the use of letters or letter combinations to represent sounds. Only a few sound-spelling relationships are predictable and invariant; the majority are **predictable but variant**, meaning one sound can be spelled multiple ways depending on a variety of influences.
- The English language developed over time and has been strongly influenced by the **Anglo-Saxon, Norman French, Latin, and Greek** languages.
- **Spelling patterns** are influenced by the **position of a sound in a word, what surrounds the sound, the location of a sound within a syllable, common English conventions, the language of origin, and the morphological structure** in the word.

The Building Blocks of Literacy

Our second purpose was to provide a general scope and sequence for instruction in the building blocks of literacy and to explain the most effective methods by which to deliver that instruction.

- Students need to develop **book and print awareness** early in their school careers by learning how to turn pages, the function of parts of the book, and that print progresses from left-to-right, for example.
- Beginning readers must acquire critical **phonological and phonemic awareness** skills. Students must be able to hear and manipulate sentences, words, syllables, and individual sounds; competency in these areas is a prerequisite for successful reading in later years.
- To decode effectively, students must understand and be able to use **phonics and the alphabetic principle. Thus, they need to be able to identify and name letters, understand and use sound-symbol correspondences, practice and review phonics skills through reading and spelling, and read high frequency words automatically.**
- Students' ability to decode improves from a working understanding of the **structure of the English language**, including its meaningful parts such as **prefixes, suffixes, and roots.**
- The most effective and efficient way to teach students to read is to provide **direct, explicit, and systematic phonics instruction.**

Teach phonics all the time. Be systematic and comprehensive about it. If YOU learned using the whole language approach, sit down for a couple hours, learn your short vowels, your long vowels, your blends, diphthongs and diagraphs. Stress the importance of word chunking and syllabication. Children with learning disabilities need phonics all the time. If you can organize it for yourself and them, you will be amazed at their progress.

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We concluded the chapter by examining a suggested scope and sequence.

- As a general rule, teach students the letters, sound-letter relationships, spelling patterns, and meaningful word parts that are **simple and are the most useful and reliable first.** Over time, build on students' understanding by teaching letters and patterns that are less frequent and reliable and are more complex.