

## Background of Phonics from *A Guide to Teaching Phonics*

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Far back in prehistoric times primitive man probably used his voice to communicate with those about him much as other creatures did, but with his evolutionary potential and his developing cerebral functions, he gradually learned to combine vocal sounds into patterns of meaningful speech through which he conveyed ideas to others of his kind. Different groups of people developed many different oral language patterns, of which some five thousand are in use today. Very much later, in comparatively recent times, written systems of language were invented which broadened communication distance in time as well as in space, and provided a medium for conserving and transmitting social cultures. Some of these graphic languages made use of drawings to represent objects and ideas. Later, various types of alphabet codes were developed with letters to represent the sounds of the spoken words. The Greek-Roman alphabet is one which is still I use today in many modern languages, including English.

Phonics is the guide to an alphabet system of transcription. Knowing the alphabet symbols for the sounds in a language makes it fairly easy to translate the spoken word into its written form, and vice versa, as long as there is a one-to-one correspondence between the sounds and the letter symbols. No alphabet is perfect in this respect, however, and the English language has far outgrown its original alphabetic representation. Its pronunciation and spelling have gradually changed over the centuries and a great many new words have been added from other languages with different phonics structures. A language is never static and changes are constantly taking place. Such words as *laboratory*, *secretary*, and *schedule* are pronounced quite differently in America than in England, and changes in the spelling of certain British words can be seen in such examples as *favour* and *theatre* which are becoming *favor* and *theater* in this country. Different pronunciations and dialects have developed in different regions in America, and one has only to examine the telephone directory to see many different ways the same name may be spelled.

It is generally recognized that our English alphabet of twenty-six letters is an imperfect sound-symbol code for our present-day written language. We use sounds in speaking which have no letter symbols of their own, such as /ch/ in *chin* and /th/ in *that*. We use various letters to represent the same sound: *x* or *cks* (*box* or *socks*), for example, and we assign a number of sounds to the same letter symbols (the letter *a* represents eight different sounds according to Webster's dictionary). A change in the position of a letter in a word may indicate a change in its sound, and so we have various patterns of letter sequences as an elaboration of our alphabet code. In some instances the spelling of a word has so little relation to the way it is pronounced that it is best to teach it as a "sight" word, but in general there is a close enough conformity between our spoken words and our graphic language symbols so that we can, and should, make good use of our heritage of an alphabet system in teaching our children to read and write.

### Language Development in Children

Children are born without any memories of specific language symbols, spoken or written, but they normally have the capacity to acquire any language to which they are exposed, according to their own innate developmental timetables. During their first five or six years, usually spent in the home, children learn to understand to reproduce many hundreds of words in the language which they hear. The introduction of the written form of language—reading, writing, and spelling—generally begins with the child's entrance into school at the age of about six years; at that age, children of all races in all countries have been found ready, by and large, for instruction in the art of written communication, although there are many individual variations.

From an early age, almost all children enjoy listening to stories and looking at picture books, and some are interested in the shapes and names of letters, and even in printed words, long before they enter school. Kindergartens find that some of their pupils are eager and able to learn the names and sounds of letters, while

almost every child can print his first name before entering school. It is in the first grade, however, that most children will be introduced to reading and writing, and it is there that they need to become thoroughly acquainted with one of our most useful educational tools—our alphabet code and the phonics approach to reading and spelling. Since all teachers can read and spell with considerable proficiency, it might seem a simple matter for them to impart these skills to their pupils. Few adults, however, can remember their own first steps in learning to read or can put themselves in the beginner's place. They are apt to expect the child to read as they read, deriving meaning directly from printed word forms which adults recognize automatically as a result of many years of practice. It is sometimes helpful for adults to review the various steps traversed in their more recent learning of some new language skill, like mastering the keyboard chart of the typewriter or beginning a foreign language with a different alphabet. They undoubtedly found it necessary to learn the individual letters before attempting to combine them into patterns. Similarly, it seems expedient for most children to learn to read, write and spell by starting with the letters of the alphabet and their sounds and then to proceed step-by-step to the recognition and reproduction of letter combinations in words, and of words in sentences.

In the following pages we will outline the order and method of presenting the phonics units which we have found most useful in many years of practical teaching experience. First, however, we would like to discuss the background of phonics a little further.

### Definition of Terms

PHONICS is the *system of associating letter symbols with speech sounds*. But what letters with what speech sounds? After we have learned to read, we become accustomed to thinking of all words as groups of printed letters rather than primarily as sequences of sounds. When we hear a familiar word, we see it clearly in its printed form, but we might have difficulty in analyzing it in terms of units of speech sounds. It is here that an acquaintance with PHONETICS, the science of speech, may be of some assistance. Some forty significant speech sounds, called *phonemes*, have been identified. They can be differentiated by their acoustical properties, the way they are produced by the vocal organs, and their function in making speech sounds into intelligible words. (Speech sounds are indicated in this text by letter symbols enclosed in diagonal lines.)

Adults cannot remember the early stages of their own speech development and they do not hear their own speech as others do. They are unconscious of the many mechanical adjustments of the speech organs that are taking place constantly as they talk, and they do not realize the difficulties children may have in learning to reproduce the speech sounds which they hear. In some children, speech development comes rapidly—in others, more slowly. Some are talking at the age of one year, others not until after two. Many first-graders still cannot produce a good /r/ or /th/; some still confuse pronouns, the forms of irregular verbs, and even the order of words in sentences. Others, who can make all of the speech sounds separately or in short words, omit or distort them in longer sequences and cannot be easily understood when trying to tell a story. Even college students (and unfortunately some teachers) sometimes retain a slight lisp or defective /r/, of which they usually are unaware. Some of these students may need the help of a speech therapist with a thorough training in phonetics and its application to the correction of speech defects. The study of *phonetics* is of great value to the teacher of *phonics*, although the approach and the objectives in teaching oral language and written language are quite different.

### Speech Sounds: Vowels

Speech sounds may be classified as vowel sounds and consonant sounds. VOWEL SOUNDS are voice sounds unobstructed by lips, teeth, tongue, or other organs. When a doctor wants a clear view of your throat, he asks you to say “ah”, a vowel sound. The vowel sounds are “open” sounds; they carry the voice; they are the sounds on which we speak. Every syllable we utter is formed around a vowel sound; we could not pronounce a word without the sounds we call vowel sounds. The mouth cavity serves as a resonance chamber for these sounds, and their quality is determined by slight changes in the position of the tongue, the tenseness of the lips, etc. The vowel sounds differ in different languages and in different dialects and they vary among different speakers. Two closely blended vowel sounds are called a diphthong.

The terms “long” and “short” are used to designate the two principal sounds represented by the vowel letters *a*, *e*, *i*, *o*, *u*. The long sounds, indicated in the dictionary by a bar over the letter (called a ma' cron), are the same as the names of the letters except in the case of *u*. Long *u* is pronounced like a long double *o* in many words, and in some of the newer dictionaries, its name-sound is

indicated by a symbol for long *oo*, preceded by the consonant *y*. As a vowel symbol, *y* usually represents the same sounds as *i*; the letter *w* sometimes replaces *u* in combinations of vowels (*au* – *aw*, *ou* – *ow*).

The vowel sounds in *at*, *ed*, *it*, *ox*, and *up* are designated as the short sounds of the vowels and are usually indicated by a curved mark called a breve, but are left unmarked in certain dictionaries. The terms “long” and “short”, however, are complete misnomers. There is no consistent difference in the duration or “length” of these pairs of vowel sounds. Moreover, the long and short sounds of the same vowel are not related to one another by any family resemblance in present-day English. The short sound of the letter *i* is actually related to the long *e* sound (*i* as in *police*), and short *e* to the long *a* sound (*e* as in *café*) as these long vowels are pronounced in European languages today. In general, the lips and tongue are more relaxed and less tense in producing the so-called short-vowel sounds.

Then there are many in-between vowel sounds which are indicated by special diacritical marks in the dictionary as “half-long”, “half-short”, etc. Again, any of the vowels may be given the neutral sound, “uh”, in certain unaccented syllables, and in some dictionaries this sound is represented by the symbol for it found in the International Phonetic Alphabet, an inverted reversed *e*, called a SCHWA (ə). It is very important for teachers and students to study the pronunciation keys in whatever dictionaries they may be using, for many changes in marking have been introduced in recent years. The pages explaining the guides to pronunciation also contain much useful material about spelling and language usage.

### Consonant Sounds

The sounds produced by interruptions of the voice stream producing the vowel sounds are called the CONSONANT SOUNDS. Sometimes the vowel sound is blocked completely and then released suddenly with a little explosion, as in saying “be”, or “go”, or the air stream may be only partially blocked and released gradually with a little friction, as in the /sh/ sound. Again, the soft palate may be lowered to divert the passage of air out through the nose as in the /ng/ in “sing”. Plosives, fricatives, nasals—so these sounds may be designated. Other descriptions are anatomical, referring to the place of the obstruction: labial (lips), dental (teeth), alveolar (ridge behind the upper teeth),

palatal (hard palate, bony roof of the mouth), velar (soft palate), lingual (tongue), glottal (space between the vocal cords). In some cases, the visual aid of watching the teacher’s face closely and the tactile aid of feeling the vocal cords as they move and the breath as it is expelled, will aid a pupil in differentiating the sounds that are to be associated with particular letter symbols.

Consonant sounds differ slightly according to their accompanying vowels and some have a vowel component in their sound. In fact, consonant sounds are so closely blended with the vowel sounds in any syllable or word that it is doubtful whether they can actually be pronounced in isolation as separate speech units. However, consonant sounds are essential in differentiating one spoken word from another and, therefore, they must be represented by identifying symbols in our linguistic code for written words. In practice, a consonant sound is demonstrated by starting to say a word beginning with a single consonant followed by a vowel and then cutting it off just before the vowel sound. Even the neutral vowel sound “uh” should be eliminated as far as possible so that the pupil will be able to blend the consonant sound with *any* vowel sound occurring after it. (Phoneticians teach *uh* not as a sound but as indicating “a position of the vocal tract, which influences the sound of the vowel following it.”)

It helps most pupils to learn a key word for each letter sound, especially the short-vowel sounds, but it is essential that the individual sound be correctly associated with its individual letter or letters so that it will be readily available for use in reading and spelling other words. Pupils who have learned only key words for letter sounds often cannot make this transfer; the letter stimulus brings the whole word response and its sound cannot be applied in a new situation. Fortunately, our alphabet code provides fairly consistent letter symbols for most of the consonant and the short-vowel sounds, and they together form the basic language pattern of many hundreds of our most common words.

The letter symbols that stand for the different speech sounds are called PHONOGRAMS. A phonogram of two letters that represent a single speech sound is called a DIGRAPH. In this text, we will use the term “digraph” only for the two-letter combinations that stand for the six consonant sounds which are not represented by any one single letter in our alphabet: /sh/, /th/ voiced, /th/

unvoiced, /ch/, /wh/, and /ng/. A CONSONANT BLEND is a true blending of two, sometimes three, consonant sounds in a syllable or word, with no vowel sound between them. A blend may occur in initial, medial, or final position in a word.

A CLOSED SYLLABLE ends with a consonant sound. The typical consonant-short vowel-consonant syllable is a closed syllable. An OPEN SYLLABLE ends with a vowel sound, which is usually long or half-long, not closed by a consonant block of the voice stream.

### Voiced and Unvoiced Speech Sounds

Speech sounds are also classified as VOICED and UNVOICED, according to whether or not the vocal cords are vibrated as the sounds are produced. When the sound is voiced, the movement in the larynx can be felt by placing a finger on the throat. The vowel sounds and certain of the consonant sounds are voiced.

The unvoiced consonant sounds, sometimes called the “breath” sounds are formed with the lips and tongue in the same positions as for their voiced counterparts, but they are produced without vibration of the vocal bands. The breath used in producing them can be felt against the hand when it is held before the mouth. The paired sounds are so similar that they are often confused, both in speech and in spelling.

The following chart shows the voiced and unvoiced pairs of consonant sounds as represented by their most common letter symbols.

<i>Voiced</i>	<i>Unvoiced</i>
b .....	p
g (go) .....	k (cat)
d .....	t
v .....	f
j .....	ch
z .....	s
w .....	wh (hw)
th (the) .....	th (thin)
“zh” (azure) .....	sh
.....	h

The sound of the consonant *h* is pure breath; it is aspirated and has no voiced counterpart in English. It is often silent.

### The Phonics System

The study of phonics involves learning not only the letter symbols representing the vowel sounds, the consonants, the consonant blends, the digraphs, and the diphthongs used in our language, but also their variations in sound according to their position in relation to one another in a word—or even, if they are at the end of a word, in relation to the initial sound of the word which follows. The system includes the specific conventions which we employ in placing letters in a certain order in written words to indicate particular sounds which we use in speech but for which we have no differentiating symbols. Consider the differences in the sounds of each of the same first three letters in *race* and *care*, or the sounds of the same vowel letters in *mate* and *meat*. The sounds in these words are determined by the position of the letters, the pattern of letter sequences.

Certain children seem to have special difficulty in remembering the order of letters prescribed by our alphabet system. These pupils can be recognized in their earliest attempts at reading and spelling by their propensity for turning letters and syllables around. (STREPHOSYMBOLIA is the technical term, meaning “twisted symbols.”) They flounder hopelessly under purely “sight” methods of teaching, but most of them can be taught to read with the aid of a well-rounded, systematic phonics approach, as our work with many hundreds of such remedial cases has proved throughout the years.

The experience of schools which start all of their pupils with alphabet phonics strongly suggests that most word-recognition problems will be prevented by this approach and that the level of achievement in reading and spelling will be higher, as a whole, in the primary grades. The value of phonics for all children is now recognized in almost all systems of teaching reading, as well as in remedial and preventive programs. *What* is taught as “phonics” and *how* it is taught will make a difference, however, and even the best methods will not prevent or “cure” all individual problems that may arise.

### Reading and Writing

Communication is always a two-way process: sending and receiving. The speaker must have a listener, the TV screen must have a watcher, a written message must be read.

Reading and writing are the two ways of using a graphic language code. In reading, combinations of letter symbols are translated into spoken words, either orally or in inner speech (thought). In writing, the sounds of the spoken word are translated into conventional patterns of letter symbols. In both processes, the *meaning* of the words has been learned originally from hearing them, and comparatively few words are added to children's vocabularies directly from the written forms of language in their first few years in school.

In *reading*, the printed word is a visual stimulus which arouses the auditory memory of the sound pattern of the spoken word with recognition of its meaning. It is primarily a language-receptive process.

In *writing*, the physical circuit may start with the spoken or remembered sound of the word—an auditory stimulus—which arouses the associated visual memory of a particular group of letter symbols and the kinesthetic memory of their writing patterns, and leads to the motor act of writing. It is a language-expressive process.

A direct association between the printed letter patterns and their sounds in a spoken word (letters-to-sounds) is the basis for reading. A direct association of the pattern of language sounds in a spoken word with their letter symbols (sounds-to-letters) is the basis for writing and spelling. Most people read much more than they write today and learning to read is probably more important for the student than learning to write—and easier in most cases—but the latter skill is also a necessity in education and in adult life and certainly should not be neglected, as it sometimes seems to be.

Writing patterns should be developed as early as possible in conjunction with learning the alphabet code. Some believe that writing is the natural way for children to learn to read but usually the linkages must be taught in both ways: letters-to-sounds for word recognition (reading, decoding); sounds-to-letters for writing and spelling (encoding). Many bright first-grade pupils become frustrated because they do not yet have the control of small muscles necessary for handling a pencil easily. Others may show a special difficulty in learning to write because of a developmental lag in the motor language areas, sometimes also involving speech. Kinesthetic (motor) training often proves a most effective pathway for implanting the memory of the shapes of the different letters and their order in words, together with

their associated sounds. The use of the master hand has a neurological relationship to learning in the language areas and the movements in writing are an important element in building the phonics structure..

A spoken word is a sequence of sounds blended together in an established order. To reproduce this order, the printed letter symbols must also be arranged in sequences, and our language, unlike many others, has adopted the horizontal left-to-right direction for placing letters in written words and written words in sentences. Since English is a “word order” language, in contrast to inflected languages like Latin, the order of words in sentences is most important in conveying meaning, in both its oral and written form. Movement of the hand in writing, or following with the finger in reading, will often facilitate the blending of sounds into meaningful words and the reading of words in groups as they occur in our speaking patterns. This emphasis upon sequence-building and order in the phonics approach leads into a functional understanding of grammar and to the study of the sequences of ideas in various paragraph and chapter patterns as a basis for comprehension and expression of meaning.

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