# Teach sight words **faster** Best practices from brain research, science

We will look at what recent brain research has found about reading, and how to apply that to learning to read. Then, there is a 52 week plan to learn over 200 sight words based on best practices from scientific research.

Recent brain research has found that the adult brain of good readers does not process words as wholes, but instead, as Stanislas Dehaene explains in his article, <u>The Massive</u> <u>Impact of Literacy on the Brain</u>, by analyzing the individual letters and letter teams at the same time in a "massively parallel architecture."<sup>1</sup> The speed of this parallel processing led early researchers to believe that the brain was processing the words as a whole, but recent brain research using more powerful technology has found the opposite.

You can find many of Stanislas Dehaene's articles online<sup>2</sup>, and his videos and other videos about reading and the brain can be found on one of 40L's YouTube playlists.<sup>3</sup>

Recent advances in brain scans have enabled scientists to see what is happening as the human brain reads, capturing what is going on in the brain millisecond by millisecond. The ability of the brain to translate letters into meaningful words is amazing, and harder than it seems.

First, the brain has to recognize letters. While this seems simple to an adult, it is actually a complex task that is hard for computers to replicate. The human brain can quickly and effortlessly translate hundreds of different fonts and thousands of different handwritten letters, some of them messier than others [messy writing], into the letters of the alphabet. It is hard to train computers to recognize so many fonts and even harder for a computer to recognize messy writing.

Then, the letters are translated into sounds so fast that the adult mind thinks that it is recognizing them as wholes, when in fact, each letter and letter team is being processed in parallel.<sup>4</sup> As this happens, the sounds of the word almost instantaneously light up the

<sup>&</sup>lt;sup>1</sup> Dehaene, Stanislas, "<u>The Massive Impact of Literacy on the Brain and its Consequences for Education</u>," Human Neuroplasticity and Education, 2011, p. 23 [Note: Stanislas Dehaene's 2009 book "Reading in the Brain" has a more detailed explanations and compares many different studies.]

<sup>&</sup>lt;sup>2</sup> Selected publications of Stanislas Dehaene: http://www.unicog.org/biblio/Author/DEHAENE-S.html

<sup>&</sup>lt;sup>3</sup> 40L's YouTube Playlist, "Your Brain on Reading:" <u>https://www.youtube.com/playlist?list=PLJLxBWdK\_5l1u9v4FTXD3CXgCBIGeSZpM</u>

meaning areas of the brain. For a more technical explanation of this amazing process, read Dehaene's "Reading in the Brain."

In Language at the Speed of Sight, cognitive neuroscientist Mark Seidenberg states,

There is a profound disconnection between the science of reading and educational practice. Very little of what we've learned about reading as scientists has had any impact on what happens in the schools because the cultures of science and education are so different.

The gulf between science and education has been harmful. A look at the science reveals that the methods commonly used to teach children are inconsistent with basic facts about human cognition and development and so make learning to read more difficult than it should be. They inadvertently place many children at risk for reading failure. They discriminate against poorer children.<sup>5</sup>

You can find more information on Mark Seidenberg's website<sup>6</sup> and in his book.

For more about how and why this disconnect between science and education harms poor and minority students, watch 40L's YouTube video "Closing the Reading Gap."<sup>7</sup> My 23 years as a volunteer literacy tutor have taught me just how important a good phonics base is for everyone, but especially for my disadvantaged students.

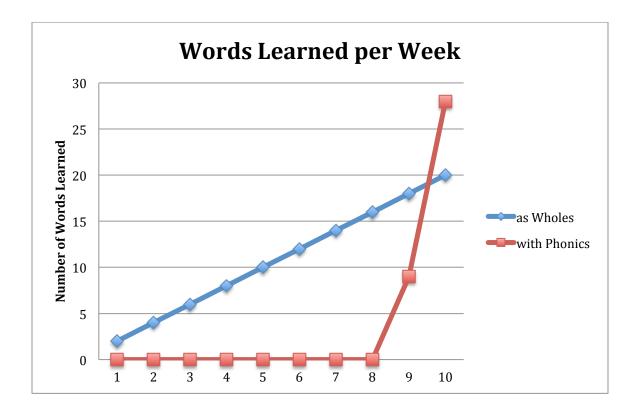
The generally recommended number of sight words that teachers suggest a young student can learn by sight is 2 words per week. With phonics, you first need to spend a few weeks learning the letter sounds and then a few more weeks learning to blend these sounds together to make words. We'll compare how much you can learn at the rate of a few sounds or word per week, comparing teaching the most commonly taught sight words as wholes by sight verses teaching them with phonics.

<sup>&</sup>lt;sup>4</sup> From Stanislas Dehaene's book "Reading in the Brain," page 107: "The conversion of a letter into a sound starts only 225 milliseconds after the letter first appears on the retina, and its compatibility with a spoken sound is recognized after about 400 milliseconds."

<sup>&</sup>lt;sup>5</sup> Seidenberg, Mark. Language at the Speed of Sight, Basic Books, 2017, page 9.

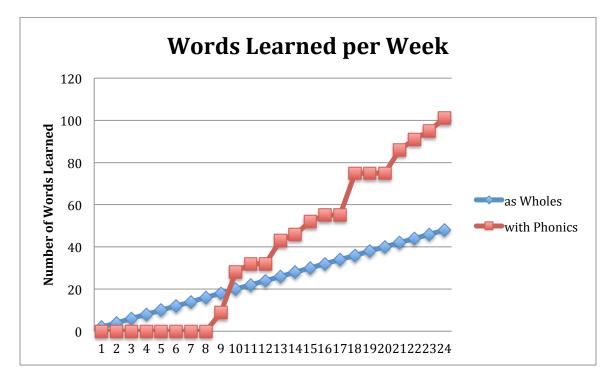
<sup>&</sup>lt;sup>6</sup> Mark Seidenberg's website about his book, "Language at the Speed of Sight:" <u>https://seidenbergreading.net/contact/</u>

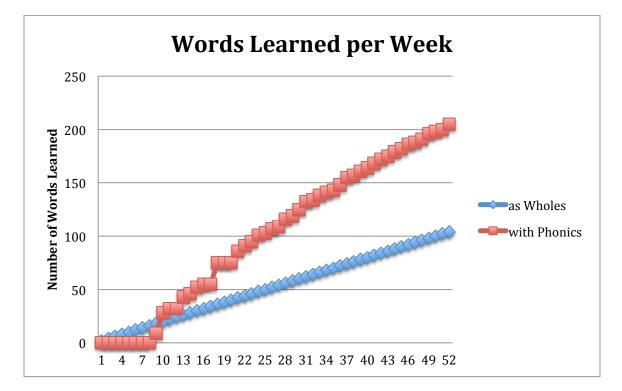
<sup>&</sup>lt;sup>7</sup> 40L's YouTube video "Closing the Gap in Reading:" https://www.youtube.com/watch?v=zORKu1F5wx0



As you can see on this first graph, initially the sight word method looks faster.

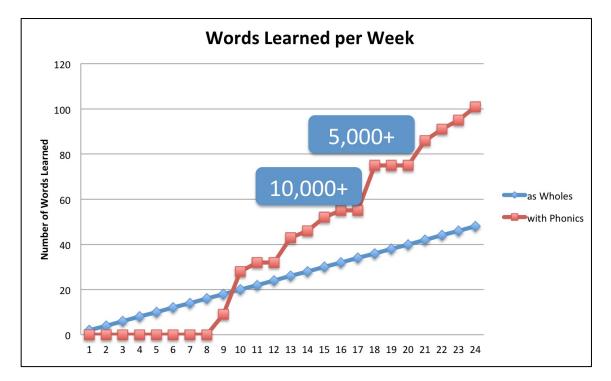
But, once you get past the basics of learning the letter sounds how to blend them together, phonics is faster and more efficient. The new reader will initially sound out words slowly and haltingly, but with practice, this process gets faster and faster until eventually they will be able to sound them out so fast that they too will think they are reading them as wholes, but science proves the opposite, that they are being decoded as sounds lightning fast in parallel. It can take a few years of practice to achieve this speed.



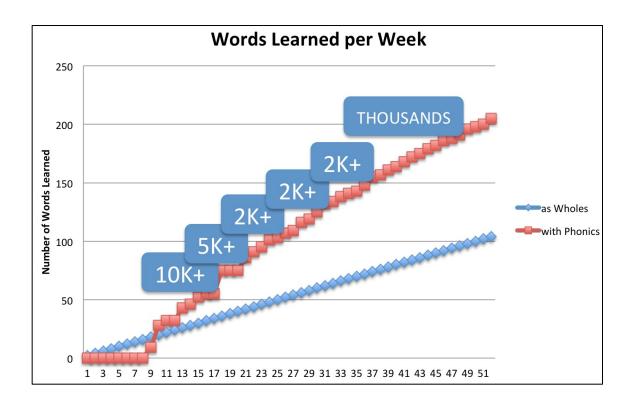


By the end of 52 weeks, phonics nets you twice as many words learned vs. learning them as wholes by sight.

Moreover, the benefits of phonics are magnified, phonics is even more powerful. At the end of 16 weeks, you have the ability to sound out 10,000 additional words. At the end of week 20, you add an additional 5,000 words.



By the end of 52 weeks, with phonics, you have the ability to sound out thousands and thousands of additional words. So, your progress is magnified and multiplied.



Learning sight words as wholes can also lead to confusion. When you are learning by shape, words that look alike are easily confused. For instance, look at the following words, a small subset of the easily confused sight words:

#### be-by-buy-big come-came-can they-then-them

They are easily confused if you are not looking at every letter and sounding them out. Almost all of my remedial students have lingering confusion problems with some sight words, but especially between "they," "then," "than," and "them."

For more about this, see Raymond E. Laurita's article, <u>Basic Sight Vocabulary - A Help or A Hindrance?</u>

The problems from guessing often do not show up until a few years later when more complex text is used, another reason sight words are still taught besides the disconnect between education schools and research. All my remedial students have had some degree of guessing problems and difficulty sounding out complex multi-syllable words.

You can easily avoid these guessing problems and confusion by teaching the sight words with phonics. About 70% of them are completely regular and need no rules or explanation to teach. All but 5 of the most commonly taught 220 Dolch sight words and 100 Fry Instant words can be easily taught with phonics by teaching a few simple rules and patterns. See the documents and videos linked in footnotes 9 - 14 of this document to learn how.

A good phonics program like Phonics Pathways or the free to print Blend Phonics or Word Mastery will also teach most of these sight words with phonics. To make sure you're getting a good sound phonics program without a lot of sight words taught as wholes, use one recommended by 40L, by Don Potter, or by the National Right to Read Foundation.<sup>8</sup>

The fastest, most efficient way to learn the sight words is with phonics. Learning them with phonics will also prevent later confusion and guessing problems. Plus, your brain will thank you.

<sup>&</sup>lt;sup>8</sup> 40L's list of good phonics programs:

http://www.thephonicspage.org/On%20Reading/phonicsandspelli.html

Don Potter's list of good phonics programs and other phonics information: <a href="http://www.donpotter.net/education\_pages/reading-instruction.html">http://www.donpotter.net/education\_pages/reading-instruction.html</a>

The National Right to Read foundation's list of recommended phonics programs: http://www.nrrf.org/resources/#featured-products

## 52 Week Sight Word Teaching Plan

Week 1 – 4. Teach letter sounds. An easy way to learn the basic letter sounds is to play Leapfrogs DVD "Talking letter factory" daily for a few weeks. You can also use 40L's free to print vowel and consonant charts and cards.<sup>9</sup> Don Potter has a good video showing how to learn the sounds using a Phonovisual chart, a chart similar to 40L's free to print chart.<sup>10</sup>

Week 4 – 8. Work on oral blending, when it is mastered, start on a white board or use 40L's cards or magnetic letters to sound out simple 2 letter words listed for week 9. Watch the videos on 40L's YouTube Pre-Reading Skills Playlist for oral blending ideas and fun ways to teach blending.<sup>11</sup> 40L's Blending Page has more blending ideas.<sup>12</sup>

Week 9. Learn to blend and read the following 2 letter words. They are all short because they end in a consonant. You can watch 40L's video "Know Sight Words #1 – Short Vowels" to help teach these sounds.<sup>13</sup>

an, am, at in, it, if on up, us

Week 10. Teach these 3 letter short vowel words, 19 additional words. They are all short because they end in a consonant.

had, can, ran yes, get, let, red, ten big, did, him, sit, six got, hot, not run, cut, but

<sup>12</sup> 40L's Blending Page:

http://www.thephonicspage.org/On%20Reading/blendingwords.html

<sup>&</sup>lt;sup>9</sup> 40L's vowel and consonant charts are free to print: http://www.thephonicspage.org/On%20Reading/Resources/40LChartsCombined.pdf

<sup>&</sup>lt;sup>10</sup> Don Potter's Phonovisual Chart for Kids YouTube video: <u>https://www.youtube.com/watch?v=OBdyTR-dqxw&feature=youtu.be</u>

<sup>&</sup>lt;sup>11</sup> 40L's Pre-Reading Skills YouTube playlist: https://www.youtube.com/playlist?list=PLJLxBWdK\_5l3aBN-qowg2u8BdGYM64pTi

<sup>&</sup>lt;sup>13</sup> 40L's YouTube video Know Sight Words #1 – Short Vowels: <u>https://www.youtube.com/watch?v=Eed\_-</u> elWl6k&t=6s&index=5&list=PLJLxBWdK\_5l2AdSYtPS1d426P8rIv66eT

Week 11. Double consonant **ff** has the same sound as a single **f**. Review all short vowel words.

## off

Week 12 - 13. Consonants will blend together, see 40L's blending page (link in footnote 12) for explanations of how sounds combine when they blend.

and, ask, fast went, best its stop, long jump, just, must

Week 14. This week you will teach **sh** and ending **ck** as **k**. See 40L's Sight word page, 40L's "Sight Words by Sound" document and 40L's Know Sight words YouTube series for help teaching these sounds.<sup>14</sup> (These links also cover how to teach the remaining sounds for weeks 15 – 52.) You can also use any good beginning phonics program such as Don Potter's free to print Blend Phonics or the inexpensive "Phonics Pathways" by Delores Hiskes to learn how to teach using phonics and incorporate additional words in your lessons.

#### black, pick wish

Week 15. Teach the sounds of **th** and **wh**.

that, than then, them this when

Week 16. Teach **ch** and ending **th**.

## much, which, with

40L's "Sight Words by Sound," free to print: http://www.thephonicspage.org/On%20Reading/Resources/Sight%20Words%20by%20Sound1.pdf

40L's sight word YouTube videos, including the "Know Sight Words" series: https://www.youtube.com/playlist?list=PLJLxBWdK\_5l2AdSYtPS1d426P8rIv66eT

Don Potter's free to print Blend Phonics: http://www.donpotter.net/education\_pages/blend\_phonics.html

<sup>&</sup>lt;sup>14</sup>40L's Sight Word page: <u>http://www.thephonicspage.org/On%20Reading/sightwords.html</u>

Weeks 17 - 18. Words and syllables ending in a vowel are long and the vowel will say its name. Also teach **sh**, **th**, and ending **y** as **I** in short words. (When y is a vowel, it usually acts as an I except when it is in an unaccented syllable at the end of a word. Rules for when the word "the" schwas should be taught later and are explained in the Sight Words by Sound document.)

a be, he, me, she, we, the I go, so, no my, try, why, by, fly

Weeks 19 – 21. Silent **e** words. You may have to compare and contrast and underline the e and the vowel, for example, mat vs. mate, cap vs. cape, pet vs. Pete, hop vs. hope, etc. At the beginning of work on silent e words, there can be a confusion between these and the short vowel words, you will need to review short vowel words and compare and contrast the two. I would personally also teach long o, e, and u silent e words, adding a few such as hope, note, Pete, cute, and cube. (See sight words by sound document for how to teach long **u**, it can either be yoo or oo.)

#### ate, came, made, make, take, gave five, like, ride, time, white

Week 22. The letter team **ee** is highly regular and is usually very easy to teach.

## see, green, keep, sleep three

Week 23. The letter team **ea** as its primary sound of long **e**.

eat, clean, each, read\* (read can also be short e depending on context)

Week 24. The letter teams **ay** and **ey** as long **a**. Personally, I would also teach **ai** and **ei** as in mail and vein and add a few extra words.

## say, may, day, way, play they

Week 25. The letter team **igh**. This is not a silent gh but a letter team working together to keep the I long.

## light, right

Week 26. The letter team **ow** as long **o**.

## grow, show, own, yellow

Week 27. The letter teams **ue** and **ew** as long **u**. I would personally add in a few words such as few, new, and glue. You can also teach **ui** as long **u** as in fruit.

#### blue, new

Week 28. These are l controlled vowels.

all, call, fall, small tell, well, help

Week 29. More I controlled vowels.

will full, pull

Week 30. The sound of n in ng and nk. (Different from the normal sound of n.)

sing, bring, going drink, think thank

Week 31. The letter teams ou and ow as "ou."

#### out, found, round how, now, down, brown

Week 32. The letter team **aw**. You could also teach "**au**" as in autumn and faun.

saw, draw

Week 33. Long and short **oo**.

good, look too, soon

Week 34. These are r controlled vowels.

far, start, part or, for Week 35. More r controlled vowels (Divide between two consonants, syllables ending in a consonant are short. If these two syllable words are too difficult, add dashes as in af-ter and bet-ter or save until the student is older.)

first her hurt after, better, under

Week 36. More r controlled vowels

our here

Week 37. These have w control.

## want, wash, walk

Week 38. More w control. I would personally add a few more of each type such as warp and world.

#### warm work

Week 39. Schwa, unaccented syllables often schwa, especially beginning unaccented a.

## again, about, around, away.

Week 40. Schwa, see 40L's Sight Words by Sound document for explanation.

## come, some, done, from

Week 41. Schwa.

#### what other

Week 42. These have s as z, "does" also has a schwa. This is because s and z are consonant pairs.

as, has is, his does Week 43. More s as z, was and of schwa and have their consonant pair substation (The letters f and v are also consonant pairs, this is why "of" is pronounced "uv" and why leaf changes to leaves.)

hers was of

Week 44. More s as z in ending –se.

please, these those use

Week 45. A bit tricky, already learned patterns.

## always goes

Week 46. Ending v. (Live can be either short or long depending on context.)

## have give, live\*

Week 47. Vowel changes, o as oo. (Into divides between two consonants.)

#### to, do into

Week 48. Vowel changes.

#### because been

Week 49. Vowel changes.

## could pretty

Week 50. Vowel changes.

put said shall you

## Week 51. Vowel changes.

## both any, many

Week 52. Long vowel in words with I or 0 followed by 2 consonants.

## kind, find old, cold, hold

To teach the remaining 220 Dolch and 100 Fry sight words not yet taught (35 words), see 40L's Sight Words by Sound document (footnote 14) for a detailed explanation on how to teach them, including syllable division rules. You can also see how to teach them all in 40L's "Know Sight Words: Summary" YouTube video.<sup>15</sup>

<u>silent</u> letters	<u>r</u> <u>exceptions</u>	<u>irregular</u>	<u>true</u> sight	2 syllable	<u>other</u> don't
would	carry	two	one	open over	uunt
know	carry	buy	once	0001	*read
write	four	247	01100	myself	, cuu
eight	your	laugh		-	
who				little	
	every				
are				funny	
more	their				
before	thous			today	
people	there where			together	
heopie	where			never	
	very			seven	
	,			upon	
				only	

<sup>&</sup>lt;sup>15</sup> 40L's Know Sight Words Summary movie available at: <u>https://www.youtube.com/watch?v=8V1d\_VmbFik&index=3&t=7s&list=PLJLxBWdK\_5l2AdSYtPS1d426P8rIv66eT</u>