DROPPIN' KNOWLEDGE ON Phonics

Spelling and Phonics Activities Aligned to the Science of Reading

Heidi and Adam Martin

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About the Authors

Heidi Martin is trained in LETRS for Early Childhood, IMSE Orton-Gillingham, and Top 10 Tools. She is a National Facilitator for LETRS EC. She has presented at national conferences as well as provided training at the district level. Heidi is the author of *P is for Paint*, which is the one and only alphabet book with embedded mnemonics. She has authored and self-published the Decodable Adventure Series books. She taught first grade for over 10 years and most recently taught Kindergarten and 4K.

Adam Martin is a National LETRS Facilitator certified Units 1–8 and presents to teachers and districts on a weekly basis. He has his Masters in Educational Literacy and his Reading Specialist License. He is the co-author and editor for the Decodable Adventure Series. He taught first grade for seven years and has tutored children of all ages.

How to Contact the Authors

We appreciate your input and questions about this book! Email us at hello@droppinknowledge.com or visit our website at www.droppinknowledge.com.

Other Books in the *Droppin' Knowledge* Series

Droppin' Knowledge on Sight Words and Word Mapping: High-Frequency Word Activities Aligned to the Science of Reading

Droppin' Knowledge on Foundational Skills: Phonological and Phonemic Awareness Activities Aligned to the Science of Reading

Hey, Parents and Teachers!

We are so excited to help you teach reading! We are Heidi and Adam Martin—both former first-grade teachers (and parents) who now spend our time sharing the Science of Reading with as many people as we can! But before this, we **had no idea there was a science to how we learn to read**. We taught first grade for a combined 15+ years using what most people call "balanced literacy" methods until we found that there is actual science to how we learn to read.

We also learned that according to the 2022 Nation's Report Card, less than 40% of kids are reading proficiently.[1] To us, this was a big wake-up call. If over 60% of our kids are not reading proficiently, we must be doing something wrong!

Once we learned there was decades of evidence and research on how we learn to read, we set out on a mission to unlearn and learn it all. We want to let you know that this has been a journey, not a sprint. There was a lot for us to unlearn (and still is). Throughout this journey of unlearning, we definitely had to work through some ups and downs, as well as emotions of frustration, anger, and regret. The fact that we were not taught this earlier, especially since this science has been around for over 20 years, can really weigh on you. We often think back to the kids we could have helped if we only knew what we know now. However, you don't know better until you do, so we just have to move forward and make sure this doesn't happen again. If some of this is new to you as well, please remember to give yourself grace!

Let's talk about some of the terms we have been using and clarify where we came from and where we are now.

What Is Balanced Literacy?

Balanced literacy sounds good doesn't it? I mean who doesn't love being balanced? Heidi was sold on this, especially being a type B teacher. She was not a fan of words like "systematic" and "structured." Then, she found out that balanced literacy is not truly balanced after all. Adam was starting his teaching career being taught about the Science of Reading through his licensure program. However, in our school district, we were using balanced literacy curriculums. Going through hours of professional development on this curriculum, this became the norm. Since this was all the buzz, it had to be the most beneficial thing for our

[1]https://www.nationsreportcard.gov/reading/nation/achievement/?grade=4.

students, right? Adam said, “I had my skepticisms on balanced literacy, especially since I was seeing minimal progress from my students. I think this is the case for a lot of teachers.”

To be clear, when we say balanced literacy, we are talking about programs and strategies that were most often used in schools and called “balanced” within those schools and programs. In reality, these programs skip many of the foundational reading skills kids need in order to become successful readers.

Balanced literacy was supposed to be the answer to the reading wars—a compromise. However, in our experience, there is much more of the whole language approach in balanced literacy programs. We feel that these “balanced literacy” programs are not truly balanced after all. Some examples of the remnants of whole language are:

- Skipping a word if you don’t know it
- Using meaning or context to solve or read a word
- Believing that reading is natural (aka reading more will help kids become good readers)
- Memorizing “sight words” or spelling words

If our kids cannot decode and read the words on a page (or if they are skipping words), how will they “naturally” become skilled readers? We have learned from the research on how we learn to read that the continuum, or progression of learning to read, is NEVER truly balanced. We spend more time on specific skills when students are developing foundational reading skills than we do later on once those skills and abilities to decode are mastered. The time spent on specific skills will vary based on where our kids are in their reading development. So, although it sounds good, there is never really a “balance” to literacy.

What Is the Science of Reading?

You have probably heard the term “Science of Reading” more times than you can count, but the definition can get a little muddy. So let’s talk about what the Science of Reading is **not**.

The Science of Reading is not a curriculum.

The Science of Reading is not just phonics.

The Science of Reading is not a strategy or activity.

Here is how The Reading League defines the Science of Reading[2]:

> The Science of Reading is a vast, interdisciplinary body of scientifically based research about reading and issues related to reading and writing. This research has been conducted over the last five decades across the world.
>
> It is derived from thousands of studies conducted in multiple languages. The Science of Reading has culminated in a preponderance of evidence to inform how proficient reading and writing develop; why some have difficulty; and how we can most effectively assess and teach and, therefore, improve student outcomes through prevention of and intervention for reading difficulties.
>
> The Science of Reading is derived from researchers from multiple fields:
>
> Cognitive psychology
>
> Communication sciences
>
> Developmental psychology
>
> Education
>
> Implementation science
>
> Linguistics
>
> Neuroscience
>
> School psychology

To break that down, we like to say that **the Science of Reading is the research and the evidence on how our brains learn to read**. This means that not just one study is referenced when discussing the skills kids need to read. Again, this is research that has been conducted for almost 50 years and includes research of the research (meta-analysis)!

We hope that helps explain some of the terms you may have been hearing about and why we decided to write these books. We are so excited for you to use these activities with your students and/or your own children.

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[2]https://www.thereadingleague.org/wp-content/uploads/2022/03/Science-of-Reading-eBook-2022.pdf.

Honestly, as teachers who were trained in balanced literacy, we did not think highly of phonics or decodable books. Heidi even stopped giving spelling tests after her first year of teaching. She was under the impression that these things would take away from the love of reading.

Adam felt that teaching phonics was a supplement, and getting kids in books was the thing to do. My curriculum pushed this, and we had numerous professional development sessions stating this, so I must be doing the right thing … right? Well, I should have known better. Especially since much of this didn't line up with what I learned when I was getting my teaching license. I did make progress with students. They began memorizing more words and moving up in their leveled readers. But then I would check on them in second grade, and their teachers were stating that they were struggling and even beginning to go backwards, or stagnant, in their reading. Now I know why. I spent our time getting kids to memorize a set of words and did not teach them skills to decode and read new words.

Now that we know better, we both often think back to our students who were struggling to learn how to read and realize this is exactly what they needed. If we're being honest, even our "readers" should have been taught these skills. What happened to them when they got to third or fourth grade? Were they still able to read? Could they decode new, bigger words? When memorizing words and looking at the pictures are no longer options, what do our students do?

We now understand the importance of spelling and phonics and we will tell you from experience … it does not take away from the love of reading! Kids are actually excited to practice, and when they apply these skills and decode new words, you can see so much confidence light up on their faces!

Let's Talk About Phonics Patterns

Phonics just means teaching kids to connect the sounds they hear in words to the letter or letters that spell that sound. Phonics patterns should be taught systematically and explicitly. We should introduce skills in a sequential way while building on previously taught skills.

For example, if we are teaching short vowels in this order:

Short A

Short E

Short I

Short O

Short U

Then we can use short A and short E words in our short I resources. This reinforces the skills we taught earlier and also gives kids practice with the new skills! We should not use Short U words in our Short I resources because kids have not learned that skill yet.

It is important to note that there is no decided upon scope and sequence. Meaning, there is no right or wrong order in which to teach phonics skills. Most scope and sequences are similar though as they tend to go from easier skills to more difficult skills.

Here is the phonics scope and sequence that we developed. We looked at many other scope and sequences and also used our experience teaching first grade to develop this. All of our resources strictly follow this scope and sequence.

Phonics Scope & Sequence

Skill Group	SKILL
Orange	Short A
Orange	Short E
Orange	Short I
Orange	Short O
Orange	Short U
Orange	Long Vowels
Blue	Digraph (th)
Blue	Digraph (sh)
Blue	Digraph (wh)
Blue	Digraph (ch)
Blue	Digraph (ng)
Blue	Floss Rule
Blue	Beginning S Blends
Blue	Beginning L Blends
Blue	Beginning R Blends
Blue	Ending Blend (nk)
Blue	Ending Digraph (ck)
ED Ending	
Yellow	S as /Z/
Yellow	VCe

Skill Group	SKILL
Soft C & G	
Yellow	Vowel Team (ee)
Yellow	Vowel Team (ea)
Yellow	Vowel Team (ai)
Yellow	Vowel Team (ay)
Yellow	Vowel Team (oa)
Yellow	Vowel Team (ow)
Yellow	Vowel Team (igh)
Yellow	Vowel Team (UE)
Green	L-Controlled
Green	Closed Syllable Exceptions
Green	Bossy R (ar)
Green	Bossy R (or)
Green	Bossy R (er) *most common
Green	Bossy R (ir) (ur)
Pink	Tricky Y (as E)
Pink	Tricky Y (as I)
Pink	Vowel Digraph (oo)
Pink	Vowel Digraph (aw) (au)
Pink	Diphthong (ow) (ou)
Pink	Diphthong (oi) (oy)
Pink	Schwa

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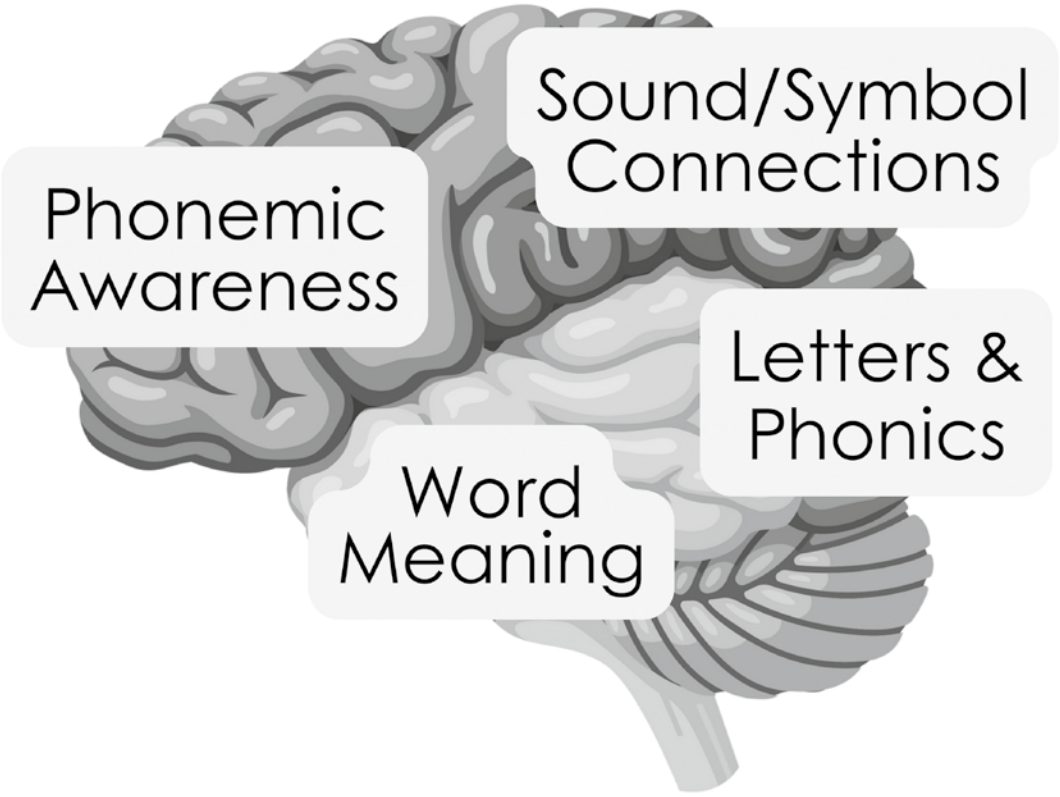
After we teach students a phonics pattern, we can help them practice reading and spelling words that contain that phonics pattern.

Let's Take a Look at the Reading Brain

Understanding the reading brain has been very impactful for us in our journey of following the Science of Reading. We think this is because when we're talking about what the brain is doing while we're reading, this is concrete evidence from the field of neuroscience. We feel that this evidence is enough to put the reading wars to rest. We know what parts of the brain we need to activate in order for our kids to read, and this gives us the information we need in order to teach reading!

Heidi developed this simplified version of the reading brain to make it easy to understand and also be able to share with your students.

The **Simple** View of the Reading Brain



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All of these parts must **work together** in order for us to read!

When we look at the Simple View of the Reading Brain, we want to first direct our attention to the front of the reading brain where our phonological processor is located. This is where phonemic awareness occurs, or where we manipulate language and sound. Research has taught us that before we can learn to read, we need to acquire oral language development. We also need an understanding of the 44 sounds (phonemes) we have in English, and the ability to manipulate those sounds. This is the bedrock, or foundation, to beginning to learn how to read (Speech to Print).

For more information on this, check out our book Droppin' Knowledge on Foundational Skills*!*

Next, let's look to the back of our reading brain where our orthographic processor is located. This is the area where we learn to manipulate print. This is where we store those 26 letters (graphemes) and the various ways we use those 26 letters (spelling patterns) to represent our 44 speech sounds. This is phonics!

Once our kids have phonemic awareness (sound knowledge) and we teach them letters and phonics skills, the reading brain shows us that now we need to put those together (sound/symbol connections). This is how we read!

> **"We do not recognize a printed word through a holistic grasping of its contour, but because our brain breaks it down into letters and graphemes."** —**Stanislas Dehaene**[3]

As our kids are connecting those symbols and sounds to decode, we can now look at the sound/symbol connection area of the brain. This is the area of the brain that is connecting and reinforcing neurons needed to connect sounds and symbols. This hardwiring process is called orthographic mapping.

Let's quickly clarify the term "orthographic mapping." Sometimes this gets thrown around as an activity, or practice you do with kids. However, orthographic mapping is the cognitive process, or what is happening in the brain, when students are connecting spelling patterns and sounds. As this process is happening,

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[3]Dehaene, S. 2010. *Reading in the Brain: The New Science of How We Read*. p. 224. (New York: Penguin Random House).

and the decoding connection becomes stronger and kids KNOW that word, we move that word into our sight word vocabulary. This is located in the MEANING portion of the reading brain.

This sight word vocabulary area is where we store all the words we have mapped and have made that sound–symbol connection. Now we know the word as if "by sight."

Eye-movement and brain research show that proficient readers still process every letter and connect sounds to symbols, but due to orthographic mapping, this happens at such a rapid rate (milliseconds) that we don't notice we are doing this. So, now when we see that word in text or anywhere, our brains automatically and effortlessly read that word. It does not need to slowly decode or connect the sound and letter patterns anymore, because we own that word. Adults have about 30,000–70,000 words in their sight word vocabulary! And that is our goal with phonics instruction … to get our kids to build their sight word vocabulary (not memorize "sight words").

Once students have more words stored in their sight word vocabulary, they now can shift their brain energy to understanding meaning from what they read (comprehension). They will no longer be struggling and using all their brain energy to try and decode words and now can focus on what the text is trying to tell them. These are all the wonderful things that are happening, in cohesion, within our reading brains for our kids to be able to read and comprehend. We hope this breakdown helps you understand more about the Reading Brain and what kids need to become successful readers!

When we are teaching phonics, we want to keep the reading brain in mind. Hearing the sound in a word and then knowing how it is spelled is going to be key for our students to be successful readers and writers. But we want to make sure not to leave out developing word meanings. This is beneficial, even while we are working on phonics. Meaning is a key part in helping kids own their words and comprehending what they read.

> "I used to think teaching Consonant, Vowel, Consonant (CVC) words was all about blending sounds into words (and that is a big part of it) but I missed the opportunities those words gave me to incorporate meaning! For example, if I am teaching the word 'BAT,' I typically just taught the word and moved on. But what an opportunity there to talk about the various meanings the word has. Am I talking about an animal that lives in a cave? Am I talking about the thing people swing in order to hit a ball?

Am I talking about an action? There is an opportunity—even at the earliest level of phonics—to teach word meanings and I don't want you to miss it!" —Heidi

So, how can we easily do this with our students? We created spelling riddles following our scope and sequence to help you incorporate all aspects of word learning—and make it fun!

These spelling riddles help kids work on phonics and spelling while incorporating all parts of the learning brain. The words follow our scope and sequence so kids are only working with phonics patterns they have learned (no more guessing!). They will use their sound knowledge and phonics knowledge to make the sound–symbol connections to spell each word.

While they continue working on their spelling skills, this activity was also created to work on enhancing and expanding children's background knowledge and vocabulary. This is a key component to helping create stronger and more competent readers. We not only need our students to be able to decode, spell, and read words fluently, but we also need them to understand what those words mean. This activity helps aid in that by providing clues, definitions, antonyms, and synonyms to build knowledge around the target word the kids are trying to spell. Each skill has approximately 5–10 words, depending on the skill. Yes, there might be a lot more words that connect to that specific spelling skill, but the word might be too advanced or does not have enough clues to help students reach the correct understanding or answer. This is why the number of words vary per skill.

The more information a child has about a word, the better equipped they are to remember, comprehend, and use that word.

How to Use the Riddles

Print the sheet for the phonics skill you are working on. Students can use a white board, paper, or the recording sheet to write down their answers. Read them **one clue at a time**. *Encourage them to write down a guess after each clue!* This can be done in small groups, whole group, or one-on-one.