

## Reading by Science

Reading by Science™ is a Canadian made, research-based program. It was developed by a large team of individuals with the goal of providing a high-quality, research-based, free decoding program for teachers. This program is primarily intended to be used as a tier 2 intervention program, meaning its objective is to help teachers offer scientifically valid remedial instruction to struggling readers. However, the program was also designed to be used as a supplemental part of core instruction. With this in mind, we have included a scope and sequence for each grade. That said, as this program is primarily aimed at decoding, the majority of lessons are for pre-k to grade 1. The program includes lessons and games for phonemic awareness, phonics, morphology, vocabulary, and spelling. Additionally, the program offers detailed recommendations for teaching fluency and comprehension. This program is a living project and will be updated and improved over time. We have many new exciting components coming.

While most of this content is free for individual use, it is not free for reproduction. Schools or other organizations interested in using the Reading by Science™ program or in training, should contact [Outreach@pedagogynongrata.com](mailto:Outreach@pedagogynongrata.com).

Grade	Lesson Bundles (Premium)	Phonemic Awareness Lessons (Free)	Phonics Lessons (Free)	Morphology Lessons (Free)	Phonemic Awareness Games (Premium)	Phonics Games (Free)	Morphology Games (Premium)	Decodables (Free)	Worksheet (Free)
Pre-K	<a href="#">Program Guide</a>  <a href="#">Bundle</a>	<a href="#">Lesson 1</a> <a href="#">Lesson 2</a> <a href="#">Lesson 3</a> <a href="#">Lesson 4</a> <a href="#">Lesson 5</a> <a href="#">Video</a> <a href="#">Explanation</a> <a href="#">Test</a>	<a href="#">Lessons 1-7</a> <a href="#">Flash Cards 1</a> <a href="#">Flash Cards 2</a> <a href="#">Video</a> <a href="#">Explanation</a> <a href="#">Test</a>	<a href="#">Unit 1</a> <a href="#">Test</a>	<a href="#">Game 1</a> <a href="#">Game 2</a> <a href="#">Game 3</a> <a href="#">Game 4</a> <a href="#">Game 5</a>	<a href="#">Letter ID</a> <a href="#">Game 1</a> <a href="#">Game 2</a> <a href="#">Game 3</a> <a href="#">Game 4</a> <a href="#">Game 5</a> <a href="#">Game 6</a> <a href="#">Game 7</a> <a href="#">Game 8</a>	<a href="#">Early Primary</a>	<a href="#">Book 1</a> <a href="#">Book 2</a> <a href="#">Book 3</a> <a href="#">Book 4</a> <a href="#">Book 5</a> <a href="#">Book 6</a>	Coming Soon
Kindergarten	<a href="#">Program Guide</a>  <a href="#">Bundle</a>	<a href="#">Lesson 1</a> <a href="#">Lesson 2</a> <a href="#">Lesson 3</a> <a href="#">Lesson 4</a> <a href="#">Lesson 5</a>	<a href="#">Lessons 1-13</a> <a href="#">Flash Cards 1</a> <a href="#">Flash</a>	<a href="#">Unit 1</a> <a href="#">Test</a>	<a href="#">Game 1</a> <a href="#">Game 2</a> <a href="#">Game 3</a> <a href="#">Game 4</a> <a href="#">Game 5</a>	<a href="#">Game 1</a> <a href="#">Game 2</a> <a href="#">Game 3</a> <a href="#">Game 4</a> <a href="#">Game 5</a>	<a href="#">Early Primary</a>	<a href="#">Book 1</a> <a href="#">Book 2</a> <a href="#">Book 3</a> <a href="#">Book 4</a> <a href="#">Book 5</a>	Coming Soon

		<a href="#">Lesson 6</a> <a href="#">Lesson 7</a> <a href="#">Video</a> <a href="#">Explanation</a> <a href="#">Test</a>	<a href="#">Cards 2</a> <a href="#">Video</a> <a href="#">Explanation</a> <a href="#">Test</a>		<a href="#">Game 6</a> <a href="#">Game 7</a>	<a href="#">Game 6</a> <a href="#">Game 7</a> <a href="#">Game 8</a> <a href="#">Game 9</a> <a href="#">Game 10</a> <a href="#">Game 11</a> <a href="#">Game 12</a> <a href="#">Game 13</a>		<a href="#">Book 6</a>	
1	<a href="#">Program Guide</a>  <a href="#">Bundle</a>	<a href="#">Lesson 1</a> <a href="#">Lesson 2</a> <a href="#">Lesson 3</a> <a href="#">Lesson 4</a> <a href="#">Lesson 5</a> <a href="#">Lesson 6</a> <a href="#">Lesson 7</a> <a href="#">Lesson 8</a> <a href="#">Lesson 9</a> <a href="#">Lesson 10</a> <a href="#">Video</a> <a href="#">Explanation</a> <a href="#">Test</a>	<a href="#">Lessons 1-16</a> <a href="#">Flash</a> <a href="#">Cards 1</a> <a href="#">Flash</a> <a href="#">Cards 2</a> <a href="#">Video</a> <a href="#">Explanation</a> <a href="#">Test</a>	<a href="#">Unit 1</a> <a href="#">Test</a>	<a href="#">Game 1</a> <a href="#">Game 2</a> <a href="#">Game 3</a> <a href="#">Game 4</a> <a href="#">Game 5</a> <a href="#">Game 6</a> <a href="#">Game 7</a> <a href="#">Game 8</a> <a href="#">Game 9</a> <a href="#">Game 10</a>	<a href="#">Game 1</a> <a href="#">Game 2</a> <a href="#">Game 3</a> <a href="#">Game 4</a> <a href="#">Game 5</a> <a href="#">Game 6</a> <a href="#">Game 7</a> <a href="#">Game 8</a> <a href="#">Game 9</a> <a href="#">Game 10</a> <a href="#">Game 11</a> <a href="#">Game 12</a> <a href="#">Game 13</a> <a href="#">Game 14</a> <a href="#">Game 15</a> <a href="#">Game 16</a>	<a href="#">Early Primary</a>	<a href="#">Book 1</a> <a href="#">Book 2</a> <a href="#">Book 3</a> <a href="#">Book 4</a> <a href="#">Book 5</a> <a href="#">Book 6</a>	Coming Soon
2	<a href="#">Program Guide</a>  <a href="#">Bundle</a>	<a href="#">Test</a>	<a href="#">Test</a>	<a href="#">Unit 1</a> <a href="#">Test</a>		<a href="#">Game 15</a> <a href="#">Game 16</a>	<a href="#">Early Primary</a>		Coming Soon
3	<a href="#">Program Guide</a>  <a href="#">Bundle</a>	<a href="#">Test</a>	<a href="#">Test</a>	<a href="#">Unit 1</a> <a href="#">Test</a>			<a href="#">Game 1</a>		Coming Soon

4	<a href="#">Program Guide</a> <a href="#">Bundle</a>	<a href="#">Test</a>	<a href="#">Test</a>	<a href="#">Unit 1 Test</a>			<a href="#">Game 1</a>		Coming Soon
5	<a href="#">Program Guide</a> <a href="#">Bundle</a>	<a href="#">Test</a>	<a href="#">Test</a>	<a href="#">Unit 1 Test</a>			<a href="#">Game 1</a>		Coming Soon
6	<a href="#">Program Guide</a> <a href="#">Bundle</a>	<a href="#">Test</a>	<a href="#">Test</a>	<a href="#">Unit 1 Test</a>			<a href="#">Game 1</a>		Coming Soon
7	<a href="#">Program Guide</a> <a href="#">Grade Bundle</a>	<a href="#">Test</a>	<a href="#">Test</a>	<a href="#">Unit 1 Test</a> <a href="#">Unit 2 Test</a>			<a href="#">Game 1</a>		Coming Soon
8	<a href="#">Program Guide</a> <a href="#">Bundle</a>	<a href="#">Test</a>	<a href="#">Test</a>	<a href="#">Unit 1 Test</a> <a href="#">Unit 2 Test</a>			<a href="#">Game 1</a>		Coming Soon
Intervention	<a href="#">Program Guide</a> <a href="#">Bundle</a>	<a href="#">Lesson 1</a> <a href="#">Lesson 2</a> <a href="#">Lesson 3</a> <a href="#">Lesson 4</a> <a href="#">Lesson 5</a> <a href="#">Lesson 6</a> <a href="#">Lesson 7</a>	<a href="#">Lessons 1-16</a> <a href="#">Flash Cards 1</a> <a href="#">Flash Cards 2</a> <a href="#">Video</a>	<a href="#">Unit 1</a> <a href="#">Unit 2</a> <a href="#">Unit 3</a> <a href="#">Unit 4</a> <a href="#">Unit 5</a> <a href="#">Unit 6</a> <a href="#">Unit 7</a>	<a href="#">Game 1</a> <a href="#">Game 2</a> <a href="#">Game 3</a> <a href="#">Game 4</a> <a href="#">Game 5</a> <a href="#">Game 6</a> <a href="#">Game 7</a>	<a href="#">Game 1</a> <a href="#">Game 2</a> <a href="#">Game 3</a> <a href="#">Game 4</a> <a href="#">Game 5</a> <a href="#">Game 6</a> <a href="#">Game 7</a>	<a href="#">Early Primary</a> <a href="#">Game 1</a> <a href="#">Game 2</a> <a href="#">Game 3</a> <a href="#">Game 4</a> <a href="#">Game 5</a>	<a href="#">Book 1</a> <a href="#">Book 2</a> <a href="#">Book 3</a> <a href="#">Book 4</a> <a href="#">Book 5</a> <a href="#">Book 6</a>	Coming Soon

		<a href="#">Lesson 8</a> <a href="#">Lesson 9</a> <a href="#">Lesson 10</a> <a href="#">Video</a> <a href="#">Explanation</a> <a href="#">Test</a>	<a href="#">Explanation</a> <a href="#">Test</a>	<a href="#">Unit 8</a> <a href="#">Unit 9</a>  <a href="#">Test</a>	<a href="#">Game 8</a> <a href="#">Game 9</a> <a href="#">Game 10</a>	<a href="#">Game 8</a> <a href="#">Game 9</a> <a href="#">Game 10</a> <a href="#">Game 11</a> <a href="#">Game 12</a> <a href="#">Game 13</a> <a href="#">Game 14</a> <a href="#">Game 15</a> <a href="#">Game 16</a>	<a href="#">Game 6</a>		
--	--	---	---	--	---	---	------------------------	--	--

**Q&A:**

**1. What Does this Program Cover:**

While this program includes recommendations for comprehension and fluency instruction, its primary focus is on aiding students in developing their word reading and decoding skills.

**2. Is the Program Really Free?**

Yes, it is! Our main goal was to create a free, research-based program, so all of the most essential games and lessons are free. However, we do offer some premium content to support planned future expansions of the program. While the program is mainly free, our development and hosting costs are not. If you're a fan of the program, please consider supporting us either by purchasing the premium version or by donating to our Patreon: [patreon.com/user?u=70587114](https://patreon.com/user?u=70587114).

**3. Do I Need the Premium Lessons?**

Absolutely not! The premium lessons were specifically chosen to be premium because they are the least essential components. In fact, we encourage you not to buy a single premium lesson until you have tried the full free program!

**4. What Grades is this for?**

The program can be used to help struggling readers pre kindergarten to grade 8. However, it can also be used as a supplementary tool for pre-kindergarten to grade 8. That said, as this is primarily a word reading/decoding program, there are less and less materials as the grades increase.

5. **What tier of instruction is this for? The program is primarily meant for tier 2** instruction. Meaning it is something teachers can use with the struggling readers in their class. However, it can also be used alongside regular tier 1 instruction. It just cannot be used as the entire literacy program, as there is currently minimal fluency and comprehension instruction included.

6. **Is this program appropriate for students with dyslexia?**

While we believe this program would be helpful for dyslexic readers, the number of repetitions built into the program may be too few for the most severely dyslexic students. In those cases, we would recommend something more comprehensive, such as SPIRE, MindPlay, or Corrective Reading.

7. **What Makes this Program Unique?**

Aside from being free, this program includes morphology, phonemic awareness, and phonics, all at the same time. The morphology instruction is systematic, explicit, and based on a scope and sequence. Phonemic awareness is often taught with oral-only deletion and manipulation drills. However, this goes against our best evidence on how to teach phonemic awareness. Both the (NRP, 2000) and (Rehfeld, 2022) showed that PA was best taught with letters using blending and segmenting drills, so that's exactly how our PA lessons are designed. Unlike many other programs which teach "sight words" or "trick words" with memorization, our program embeds the high-frequency, irregularly spelled words into our phonemic awareness instruction. Our first decodables series was specifically written by Joshua King to be culturally responsive, entertaining, and intellectually stimulating. Lastly, our program is almost entirely game-based to improve engagement.

8. **Is this Program Evidence-Based:**

Nope! In order for a program to be considered evidence-based, there needs to have been multiple experimental studies, which were conducted showing it is effective. This program is brand-new and there have been no studies to date! The program is, however, research based. When a program is research-based, it means that the program was developed based on academic research.

9. **What Elements are Yet to Come?**

We have a team of people working on developing spelling worksheets, more decodables, vocabulary lessons, and new game templates.

**10. The Phonemic Awareness Lessons do not Line up with my Dialect, what do I do?**

All of the phonemic awareness lessons are open source. Feel free to edit them as you please!

**11. I have a class in x grade, but they are reading at x lower grade, how can I adapt this program?**

We recommend you teach according to your students' needs, not their assigned grade. That said, we think it is very important to use assessment data to be sure. Don't base this decision on anecdotal evidence!

**12. Why are there only 6 Game Templates?**

Developing our smartboard games was very time-consuming and expensive. We fully intend to develop more games. However, at launch, we started with 6 game templates that were recycled across the units and grades.

**13. Why are the Games Locked with a Password?**

While the phonics games are free to use, we view them as our intellectual property and do not authorize other people to edit the games and repurpose them.

**14. Is this Program Orton Gillingham Based?**

Nope! We recognize that OG programs are very popular for dyslexic students. However, there is no strong research showing that such approaches are superior to other systematic phonics approaches.

**15. Is this Program Speech to Print?**

Nope! There are some theoretical arguments for a S2P approach over a traditional synthetic program. However, both types of programs have been shown to be effective and there is no scientific evidence that a S2P approach is better. We chose to create a synthetic phonics program. However, we might make a free S2P program in the future.

**16. Is this Program Multi-Sensory Based?**

Nope! There is no evidence that such approaches improve literacy outcomes and even some correlational evidence that it could be harmful.

**17. Is this a Knowledge Rich Program?**

Nope! We do not have the budget for creating such a program.

**The Development Team for Reading by Science:**

**Program Director:** Nathaniel Hansford

**Lead Linguistics Editor:** Dr. Kathryn Garforth

**Game Design:** Lindsey Akerman

**Lead Copy Editor:** Lindsey Akerman

**Decodables Writer:** Joshua King

**Worksheet Developer:** Liam Gomez-Kervin

**Copy Editor:** Elizabeth Reenstra

**Content Creator:** Elizabeth Reenstra

**Content Creator:** Sky McGlynn

**Content Creator:** Megan Laszynski