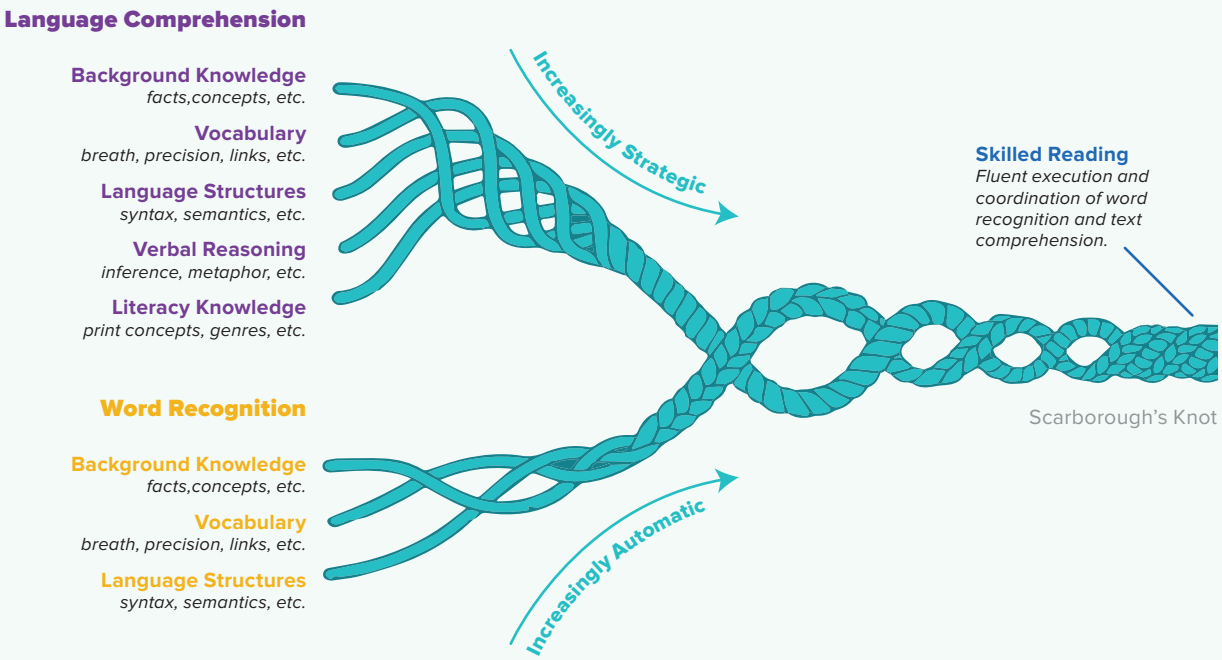
What is the Science of Reading?

The Science of Reading refers to our collective understanding of how we read based on thousands of studies spanning 50+ years in the modern era. It is a complex, interdisciplinary topic spanning the fields of neuroscience, linguistics, psychology, and education, among others.

The most important takeaway is that reading is not a natural cognitive process. It's not something we learn by instinct. It must be explicitly taught and reinforced, preferably from an early age when our minds are better at building the necessary bridges between sight, speech, and meaning.

The Five Essential Components

- Phonemic awareness
- Phonics
- Fluency
- Vocabulary
- Comprehension



Explicit and Systematic Instruction

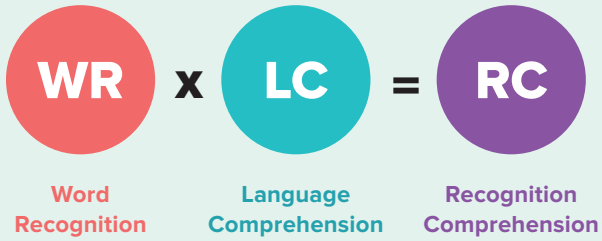
This term appeared in the National Reading Panel's report to Congress (2000) and has become a cornerstone of effective literacy frameworks in the years since. Here's what it means:

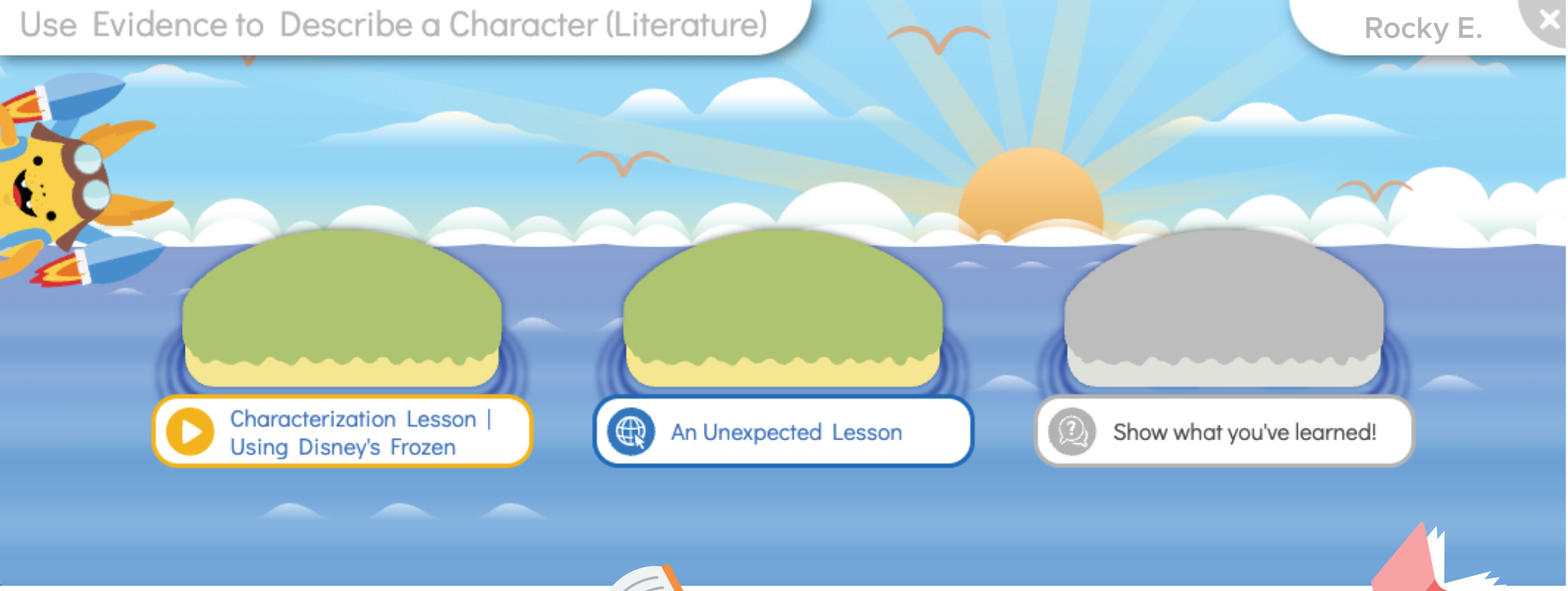
- **Explicit:** Direct instruction, clear modeling, no ambiguity. This is in contrast to previous schools of thought in which students were asked to imply letter-sound-meaning connections while reading, with less time spent on explicit instruction (especially in phonics).

- **Systematic:** Purposeful lesson sequencing, developing requisite background knowledge, new concepts build on previous instruction. Systematic reading instruction means strategically weaving in the five key components of phonemic awareness, phonics, fluency, vocabulary, and comprehension through a holistic approach that continuously builds on itself.

The Simple View of Reading

One approach that has consistently stood up to scientific scrutiny is the Simple View of Reading (Gough & Tunmer, 1986). This is the idea that reading comprehension is the product of two components—word recognition and language comprehension. The ability for students to recognize and decode written words is only half the battle—students must also have the background knowledge, vocabulary, and conceptual understanding of language necessary to give meaning to those words.





How eSpark Aligns

Explicit and Systematic Instruction

Students begin every Quest with a framing video, in which eSpark clearly defines the purpose of the quest and introduces the new concept through concise, direct instruction. That purpose is reiterated multiple times throughout the Quest.

eSpark's learning designers are intentional about how our reading Quests are sequenced. As a result, each Quest builds on prior learning and students are more likely to possess the requisite skills and knowledge before being presented with a new concept.

The Five Essential Components of Reading

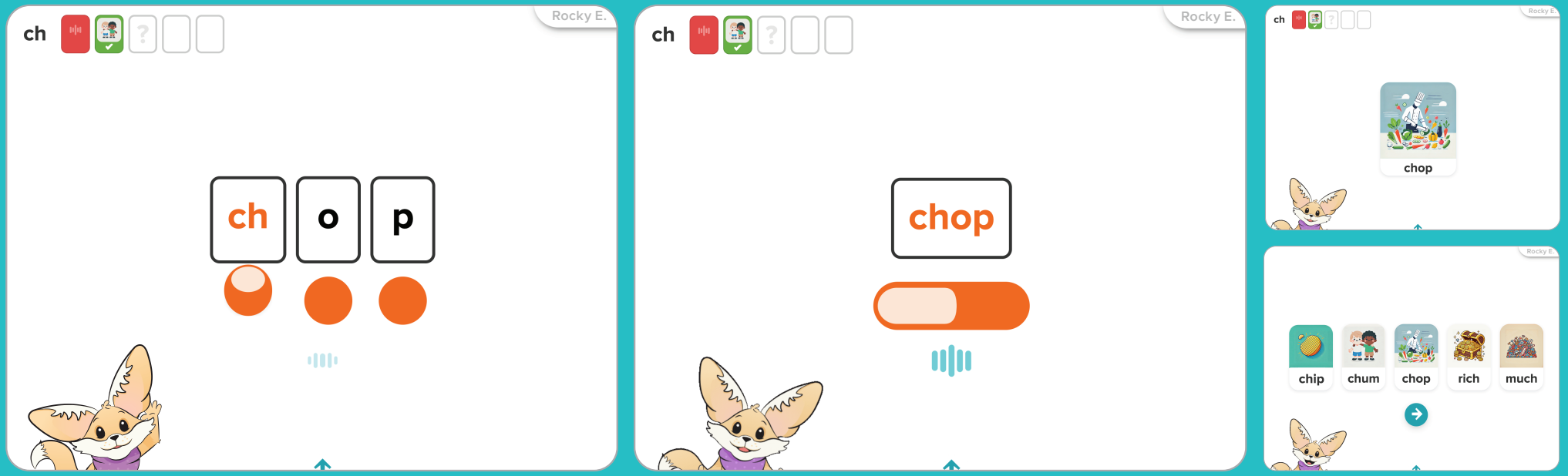
eSpark's early reading instruction includes an intentional balance of all five. Through a combination of Small Group Skills and independent Quests, teachers can easily identify gaps and differentiate instruction to fill areas of need for any student.

Building a Love of Reading

Early reading instruction can be tedious, and the work involved has the potential to turn students off from reading. eSpark's play-to-learn approach keeps students engaged and having fun during these critical stages, building the knowledge without diminishing the spark.

The eSpark Reading Lab

The eSpark Reading Lab combines the power of generative AI with the science of reading to deliver highly personalized phonics and fluency instruction. Teachers enjoy the peace of mind that comes with knowing students are receiving clear and explicit instruction on phonics and fluency without the traditional time demands of 1:1 guided instruction.



No more instructional time constraints

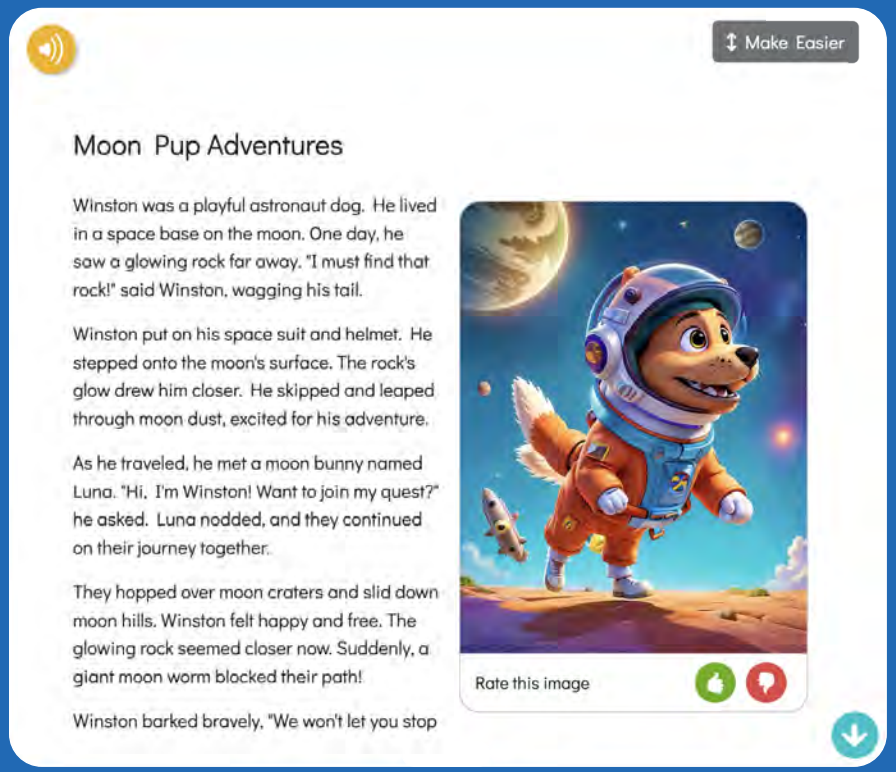
Phonics development used to require intensive 1:1 attention and assessment from a teacher. Thanks to advancements in speech recognition technology, students now have the opportunity to practice this crucial pillar of the science of reading independently, at their own pace. Reading Lab makes reading more accessible to every student by removing the barrier of limited whole-class instructional time.

Real-time microinterventions

If a student fails to accurately pronounce a word, the Reading Lab's AI-powered companion tutor immediately steps in to break the word into phonemes, model appropriate pronunciation, and give the student an opportunity to mirror that modeling. Teachers have clear insight into how far students are in their phonics scope and sequence, and where additional intervention may be required.

Choice Reading

Choice Texts represents a revolutionary approach to early literacy based on the evidence-based principles of student-centered learning. Every student gets to experience unique, one-of-one reading lessons based on their interests.



How it works

With **Choice Texts**, students build stories and informational text passages in real time by selecting from a list of options or entering free-form text when prompted. These decisions span everything from the overarching genre/theme of the text to plot points, character traits, and detailed subtopics. The result is a playfully personalized passage at the heart of the standard-aligned lesson.

Decodable Choice Texts use that same approach to student choice and personalization to support explicit phonics instruction in grades K-3. No more stocking the classroom with one-size-fits-all decodable readers. Now every student can enjoy a unique reading experience, every time.

Real-time feedback and remediation

The Rocky character is not just used to deliver formative assessment within the lesson, it also serves as a “guide on the side,” providing scaffolding for the student with real-time feedback, hints, and remediation. This cooperative learning environment adds another layer of fun while serving a critical instructional purpose.