

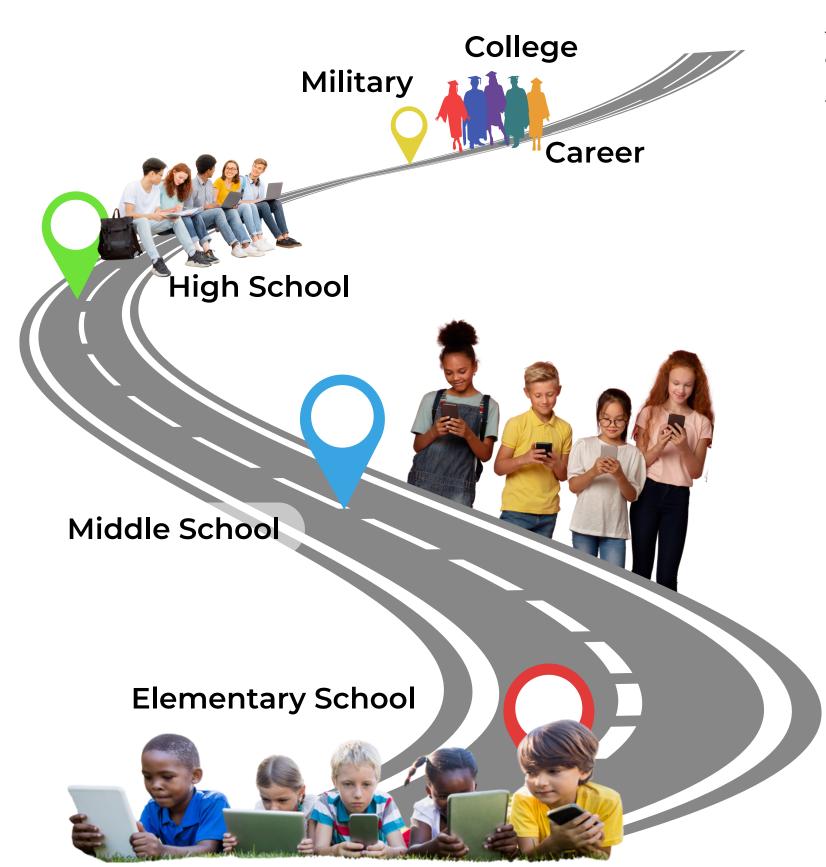
# How LightSail Aligns with the Science of Reading:

Fostering a Love of Reading While Building Reading Stamina

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### Introduction

## **The Reading Wars**

The ability to read written text is a fundamental right for every person, regardless of age, gender, or ethnicity. The "Reading Wars" debate continues into the 21st century after hundreds of years, with the earliest ideology dating back to the 1700s. (Cambourne, 2021). In today's world, the main camps split into two philosophies - whole word cueing and phonics.

Whole Word Cueing teaches children to recognize and hypothesize a word based on appearance (such as yellow has two "sticks" in the middle) and the context on the page to influence interpretation.

*Phonics* teaches children to convert the written language into sound and speech.

Fast forward to our modern day society and conversations, where inquiries and debates about the most effective best practices related to reading instruction now have a well-deserved moment in the public spotlight.

National press agencies such as the *New York Times*, *Washington Post*, and the *Wall Street Journal* are all shining a light on the challenging situation schools are facing - 2023 test scores indicated that students have scored the absolute lowest in decades (Goldstein; New York Times).

Educational researchers like Emily Hanford have popularized the debate through her widely-acclaimed podcast Sold a Story, and her precursory articles (Handford, 2018; Hanford, 2019). Due to decades of failed reading instruction, many families feel as though they have been deceived, assuming that, when they send their child to school, they are getting the best education possible that is grounded in sound research.

Thankfully, research across all fields - psychology, education, and cognition- is more robust than ever. Consequently, the words *Science of Reading* are now used to describe the abundant evidence systematically observed to provide effective reading instruction. This phrase permeates the daily lexicon of educators, families, and even lawmakers, with a giant push towards adoption and implementation in schools across the country.

At LightSail, we have embedded the Science of Reading into our platform to continue moving forward, ensuring that educators, children, and their families are not only given the best leading-edge information regarding the Science of Reading, but are also provided the best tools and resources to support teacher-led instruction in the classroom that align with the Science of Reading canon.

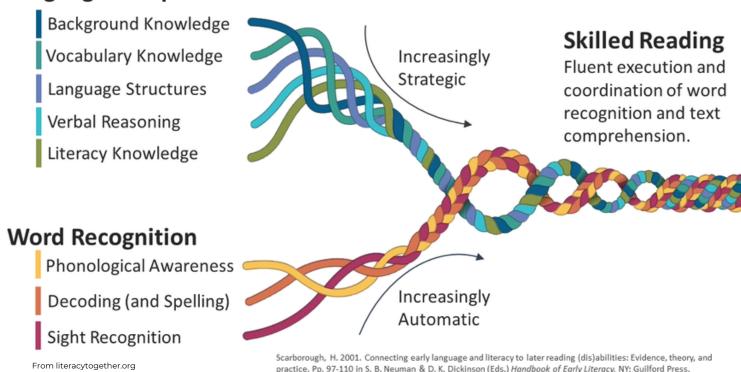
## What Is the Science of Reading?

As with any science, systematic experimentation and observation is necessary in order to determine a hypothesis - the Science of Reading (SoR) is no different. It is an umbrella term that encompasses research from developmental psychology, educational psychology, cognitive science, and cognitive neuroscience ("The Science of Reading"). For the past 40 years, researchers have been studying how the brain learns to read, with leaders in the reading education field consistently assimilating that research into the development of best practices for reading instruction.

### The Scarborough Reading Rope

One of the leading scientists in reading research, Hollis Scarborough, is a senior scientist at Haskins Laboratories in New Haven, Connecticut. Her visual representation displaying the multiple components required to become a skilled reader has become one of the fundamental resources of SoR activists, educators, and curriculum designers, utilized in the development of curriculum and standards in Reading Education.

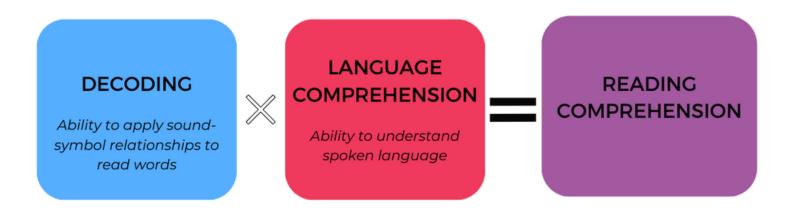
## **Language Comprehension**



Known affectionately as the **Reading Rope**, this representation depicts two strands of reading development: **word recognition** and **language comprehension**. When both of these complex strands of cognitive ability entwine, a skilled reader emerges.

### **Gough & Tunmer's Representation**

Another predominant model that showcases the development of reading is Gough & Tunmer's (1986) simple view of reading. This mathematical representation of language demonstrates that reading comprehension is a result of **decoding** and **linguistic comprehension**. This idea delineates that the level of development of decoding and linguistic comprehension dictates the success of reading comprehension.



### **Additional Considerations**

While both of these frameworks are essential to understanding reading acquisition, it is important to note that both exhibit a simplified portrayal of the cognitive processes needed to develop reading skills. Educators also need to be mindful of working memory, processing speed, and a reader's fluid reasoning abilities (Cain, 2006; Shaywitz, 2020).

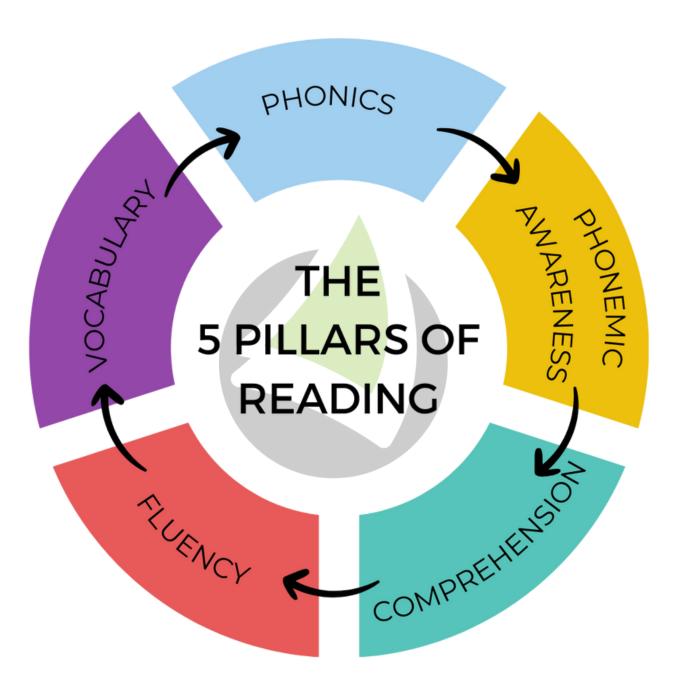
Furthermore, educators need to be cognizant of key mental processes such as orthographic mapping, the process in which readers store written words in memory by way of the decoding process, and situation model construction, the process by which the reader combines their background knowledge with the concepts depicted in the text to obtain a richer, deeper understanding of what was read (Ehri, 2020; Kilpatrick, 2015; Raudszus, Segers, Verhoeven, 2019).





## The 5 Pillars of Reading

In 2000, the National Reading Panel identified five key concepts that should be the cornerstone for an effective reading instructional program: phonemic awareness, phonics, fluency, vocabulary, and comprehension. These components are known as the "five pillars" of early literacy and reading instruction.



## How Does LightSail Align with the Science of Reading?

### LightSail's Decodables+ Library

At Lightsail, we know that all students, especially older students in the middle and high school grades who are still learning to read, want to step away from the oversight of a teacher or adult and assimilate into the independent-reading crowd of peers. The problem comes in finding texts that both appeal to their interests while still adhering to their skill and ability level within a specific scope and sequence.

### Our goal is trifold:

- to ensure that students will be excited about reading,
- to support teachers in **building reading confidence** with their students by allowing them to practice **decoding skills** within a **systemic scope and sequence**,
- to showcase student skills to parents who want to see their students develop a true love of reading while developing **stamina** and increasing **knowledge** along the way towards college, career, and/or military readiness.

The best instruction for any child learning how to read is always with a well-trained teacher. At Lightsail, we want to support our teachers by giving them plenty of options to have their students practice what they have learned under their expert instructional techniques. We realize that there are many SoR scope and sequence curriculums available to teachers and administrators.

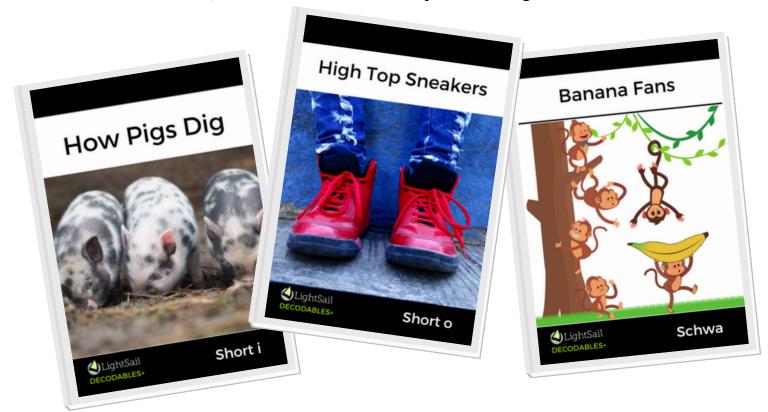
Among the many benefits of using LightSail's Decodables+ texts is that all the texts can easily fit into any SoR curriculum, so teachers are not limited in their choices. Within the LightSail platform, all reading data is continuously collected in real-time, amassing analytical data on each student throughout their entire reading journey, allowing for transparency and the development of metacognitive skills as they learn to assess their own data.



## Why Decodables+?

Traditionally, decodable texts, often only exclusively used in K-2 classrooms, serve a meaningful purpose in that they are a student's first opportunity to **read independently** without the assistance of an adult or teacher to read aloud to them. The texts contain specific knowledge which the student has already been taught, which consists of **phonics-based words** (letter-sound-code), how to **blend sounds** together, and **recognizing sight words** (Moats, 203).

However, there is a gap in the movement that exists today from these basic decodable books and passages into more structured texts, such as leveled readers or "typical" books for kids. In addition, limited resources exist for older students who are struggling to read, whether they are older elementary, middle, or even high school students who desperately need significant support. Past second grade, students are expected to move beyond the predictability and structure of decodables, but there is no consistency in the design.

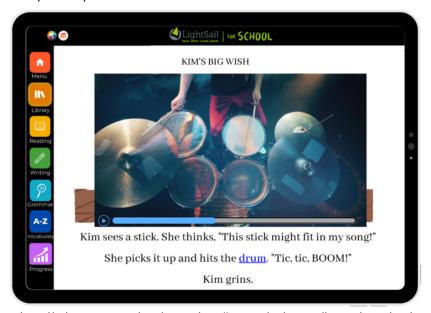


Lightsail recognized this need and, working with SoR experts and teachers, created a library of texts to bridge this gap between traditional decodables and leveled, uncontrolled readers. LightSail's Decodables+ collection not only presents structured texts aligned with SoR principles, but serves as an extension from students' classroom learning where they are guided by explicit instruction by their teacher. The collection can be used not only for younger students, but our High-Interest Articles presents a scaffolded reading experience for older readers who still need the support of the SoR scope and sequence without the anxiety of reading "baby books."

### What Makes Decodables+ Different?

Each Decodables+ text contains at least 40% of a targeted phonics skill with the similar predictable language structure of a traditional decodable text, but also contain high-interest topics and captivating images that spark curiosity and a love of reading. Louisa Moats, author of Speech to Print, advocates for the dispersing of phonics-based words with an assortment of sight words and decodable words outside of a selected section of a scope and sequence to provide a way to increase appeal in content when working with a limited vocabulary (p. 203). At Lightsail, we are extremely proud of our expert Science of Reading team that has created this incredible collection that aligns with SoR principles and that students will love to read.

Decodables+ continues the LightSail tradition of **multimodal** reading experiences by incorporating a variety of tools and learning extensions to enrich the textual experience. Embedded action clips, related informational videos, and many word features allow students to interact with the text on a new level, making reading truly come alive for each student like never before.



From hearing words read aloud with a single click to employing the "Breakdown" tool to help with **syllabification** and decoding of difficult words, LightSail's educational technology creates an experience like no other that motivates even the most reluctant readers.

In addition, every Decodables+ can also be accessed with LightSail's Personalized Reader module built especially for students with dyslexia, ADHD, autism, and other reading challenges, offering hundreds of tools so that students can receive instant accommodations and support to finally read *their* way. This creates an accessible, equitable, inclusive reading experience to meet the needs of all students where they're at and enable them to build the specific skills they need while reading books they've chosen on their own in their exact reading zone.

Decodables+ serves as a stepping stone into the rest of the LightSail 10K+ book collection. From our expert-written Antares Collection of Leveled Readers to whole books to high-interest popular texts to Classics and more, Decodables+ extends the building of foundational reading skills, preparing students of all ages towards more complex text structures. And your students will love these topics!

## How Is Decodables+ Organized?

The Decodables+ collection begins with shorter books intended for students following a traditional SoR-based reading curriculum. It supports classroom instruction while serving as a natural extension into the next level of reading instruction. Each book comes with a classification that indicates where it falls on our Scope & Sequence - either Beginning of Year (BOY), Middle of Year (MOY), or End of Year (EOY) and then a grade level. This helps teachers to align these benchmark skills with the SoR curriculum they're using. (See the Decodables+ Scope & Sequence on pages 13-14.)

The Decodables+ High Interest Article Collection supports older students who still need additional support in acquiring these foundational reading skills without sacrificing engagement and interest. The texts follow the same scope and sequence as our Decodables+ collection, but increase the amount of words and images per page and organize the content into an appealing article format. This way, older students can engage with the text without the stigma or anxiety of "reading baby books." The content presents topics they want to read about, from technology to fashion, famous musicians to travel, and more! We encourage teachers to utilize this collection with their struggling readers in middle and/or high school to build up those skills that have slipped through the cracks while still allowing their students to "read" like their peers.









Taking a Gap Year

### **How Can Teachers Implement Decodables+?**

### Before Reading...

Teachers should review the Scope & Sequence of Decodables+ to see how it aligns with the SoR curriculum used in their schools. We encourage educators to explore the collection to become acquainted with the groupings of targeted phonics skills for each text, the Dolch selection employed, and the additional Superstar Words we've included as a challenge to move towards the next phonics skill.

Familiarity will allow educators to enrich the Decodables+ experience by anticipating questions they could ask about both the text and the images, and enable them to have a conversation with students to ensure comprehension, make connections, and spark new ideas. Teachers can embrace the opportunity to check for background knowledge, ask "I wonder" questions, and prompt students to make meaningful predictions. They will also be able to make recommendations for further reading both within and beyond the Decodables+ collection and share related videos within the LightSail platform to deepen understanding with multimodal learning opportunities.

### During Reading...

During reading, students will encounter words that their teachers have explicitly taught them based on a phonics-based set of phoneme-grapheme rules. While each school may use a different SoR-aligned curriculum, Decodables+ serves as a natural extension to that predictable framework of specific standards.

Students will also encounter "Superstar Words" - phonics-based words or sight words that traditionally appear later on in a scope and sequence. Early, predictable exposure will enable enriched scaffolding that exposes the students to more complexity in small bites. With the supportive technology available within the LightSail platform, students can embrace these challenges with interactive tools to overcome hesitation.

Interacting with the text with highlight tools, syllabification breakdown, and cloze vocabulary & embedded enrichment questions will also help them to fully comprehend the text while developing autonomy in the process.

### After Reading...

Once students have completed a story, teachers can create individualized materials and embed those at the end of the books to ask students poignant questions that check for comprehension. They can also recommend further reading, chat with students about the text, encourage additional learning with LightSail's vast collection of over 20,000 educational videos, all while monitoring student progress on the Teacher Dashboard.

LightSail's Fluency Builder module offers a Read Aloud + Retelling tool that teachers can assign to check for how much content moved into long-term memory storage, and can even collect fluency data with easy grading for a Running Record and record-keeping within the LightSail module. Teachers can align these checks with the fluency rubric used by their schools to assess student levels.



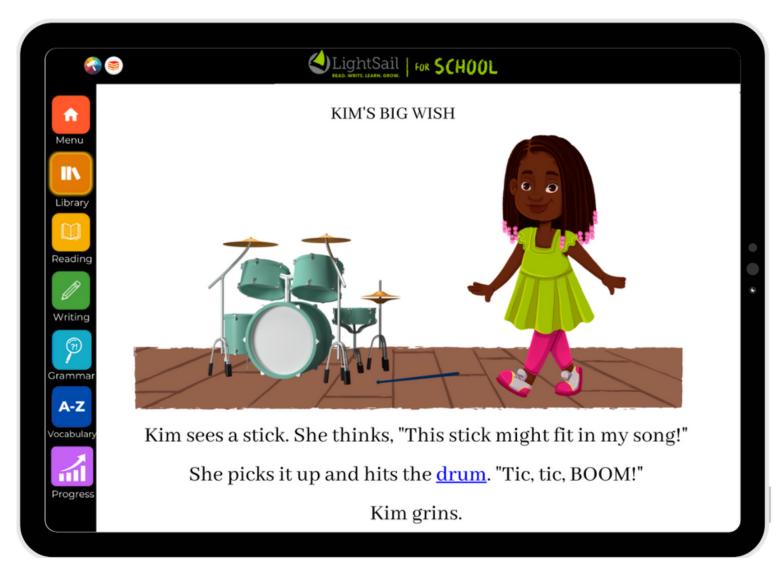
## LightSail Decodables+ Scope & Sequence

Decodables+ Distinction	Year Breakdown	Word Count	Words per Page	Length (pages)	Science of Reading Concepts	Dolch	Superstar Words (Multisyllabic or NEW challenging word)
	воу к	30-60	6-10	3-4	consonants; short vowels	PP	digraphs; long vowels (VCe)
Kindergarten	MOY K	60-100	7-12	4-6	digraphs; long vowels (VCe)	PP	blends; suffixes -es, -ed, & -ing
	EOY K	100-130	9-15	5-10	blends; suffixes -es, -ed, -ing	PP/P	ending spelling patterns; r-controlled
	BOY1	130-170	11-17	7-10	ending spelling patterns; r-controlled	PP/P/lst Grade	long vowel teams; other vowel teams
1st Grade	MOY1	170-200	13-18	13-18	long vowel teams; other vowel teams	PP/P/Ist Grade	diphthongs; schwa
	EOY1	200-230	15-20	15-20	diphthongs; schwa (unaccented syllables)	PP/P/Ist Grade	suffixes; suffix spelling changes
	BOY 2	230-270	17-22	10-11	suffixes; suffix spelling changes	PP/P/1st Grade	alternate long a & u
2nd Grade	MOY 2	270-300	19-24	11-12	alternate long a & u	PP/P/1st & 2nd	soft c & g; -ough; ch says /k/ & /sh/
	EOY 2	300-350	21-26	12-13	soft c & g; -ough; ch says /k/ & /sh/	PP/P/lst & 2nd	gn /n/; gh /g/; silent t
	BOY 3	350-400	23-28	13-14	gn /n/; gh /g/; silent t	All	common prefixes
3rd Grade	MOY 3	400-450	25-30	14-15	common prefixes	All	advanced prefixes
	EOY 3	450-500	27-32	15-16	advanced prefixes	All	Greek & Latin roots
	BOY K-HI	150-200	75-150	1-3	consonants; short vowels	PP	digraphs; long vowels (VCe)
	MOY K-HI	200-250	100-175	1-3	digraphs; long vowels (VCe)	PP	suffixes -es, -ed, -ing
	EOY K-HI	250-300	150-225	1-3	blends; suffixes -es, -ed, & -ing	PP/P	ending spelling patterns; r-controlled; long-vowel teams; other vowel teams
	BOY 1-HI	300-350	175-250	1-3	ending spelling patterns; r-controlled; long-vowel teams; other vowel teams	PP/P	diphthongs; suffixes; suffix spelling changes
	MOY 1-HI	350-400	200-275	1-3	diphthongs; suffixes; suffix spelling changes	PP/P/1st	schwa (unaccented syllables)
High-Interest Decodables+	EOY 1-HI	400-450	250-325	1-3	schwa (unaccented syllables)	PP/P/1st	r-controlled (ar, or, air); alternate long a & u
(Middle & High School)	BOY 2-HI	450-500	275-350	1-3	r-controlled (ar, or, air); alternate long a & u	PP/P/1st	soft c & g; -ough; ch says /k/ & /sh/
	MOY 2-HI	550-600	300-375	1-3	soft c & g; -ough; ch says /k/ & /sh/	PP/P/1st/2nd	gn /n/; gh /g/; silent t
	EOY 2-HI	600-650	350-425	1-3	gn /n/; gh /g/; silent t	PP/P/1st/2nd	advanced prefixes & suffixes
	BOY 3-HI	650-700	375-450	1-3	common prefixes & suffixes	All	Greek & Latin roots
	MOY 3-HI	700-750	400-475	1-3	common prefixes & suffixes	All	Greek & Latin roots
	EOY 3-HI	750-800	450-525	1-3	advanced prefixes & suffixes	All	Greek & Latin roots

## **Using Decodables+ at All Levels**

Lightsail understands that a student's self confidence and self-esteem are often affected by how others perceive them. Therefore, we wanted Decodables+ to have captivating topics written with a language load that would be closely aligned to the rigor expected of them at their particular level of education.

### What Do Decodables+ Look Like in Elementary School?



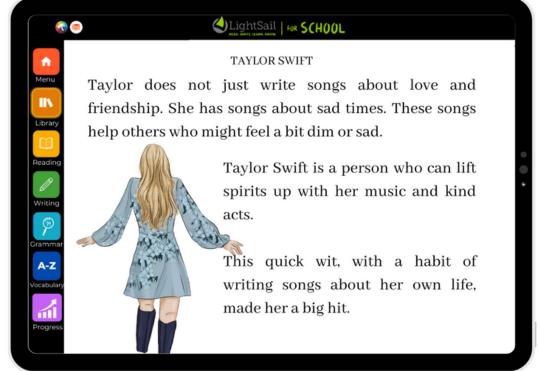
The language load for these texts is limited and thoughtfully crafted to allow younger students who are still developing their working memory abilities to spend more time interacting with the language on the page. They can examine the text in more detail using LightSail's tools as well as discuss the text with their peers or teachers either one-on-one in the classroom or via the LightSail system.

### What Do Decodables+ Look Like in Middle School?

Both a mix of narrative and nonfiction texts, Decodables+ High-Interest for Middle School students have a wide variety of topics to choose from ranging from pop culture to dystopian

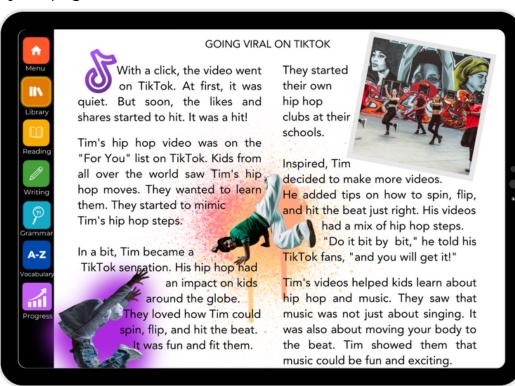
stories.

Students and teachers will both notice that the language load has increased from the Decodables+ elementary level, but the language load is manageable for those still working on their decoding and fluency.



### What Do Decodables+ Look Like in High School?

Designed for students who have more rigor and stamina, **Decodables+ High Interest Articles** are more text-heavy with a balance of meaningful graphics for those who are overwhelmed by full pages of text.



Our intent is to create an article-style text that is both informative and meaningful to the student who engages with the content. As with Middle School Decodables+, there is a variety of both narrative and nonfiction texts to choose from.



## **Supporting the 5 Pillars of Reading**

As a natural extension from classroom instruction, LightSail supports the Science of Reading with its comprehensive collection of modules and unique reading tools that create a personalized and individualized literacy journey for each student. At its core, LightSail fosters a love of reading through a unique multimodal experience that creates student engagement and motivation while generating actionable data to monitor and guide student learning that while allows transparency for students, teachers, and parents to be a part of their students' educational team, monitoring growth and progress along the way.

Easily supporting a systematic and structured literacy approach, LightSail creates learning experiences that continue the skills learned with a SoR structured literacy approach, providing opportunities for contextual practice and empowering students with book choice from over 10,000 titles. LightSail itself is built on research and evidence-based practice in education, psychology, and neuroscience that focuses on access, engagement, and motivation for mastery.

Lightsail seamlessly incorporates the five key concepts outlined by the **National Reading Panel** into its various multisensory tools and programs within the infrastructure of the software.

### **PILIAR I - PHONEMIC AWARENESS**

Phonemic awareness is a speech-based ability requiring a reader to notice, identify, analyze and manipulate different sounds within language (Birsh, 2011 p.5). Students amass these auditory abilities by rhyming, singing alliteration tongue twisters, and playing word games with the goal to match sounds to individual letters in the alphabet. Language development is first developed through speech and then carried over to reading.

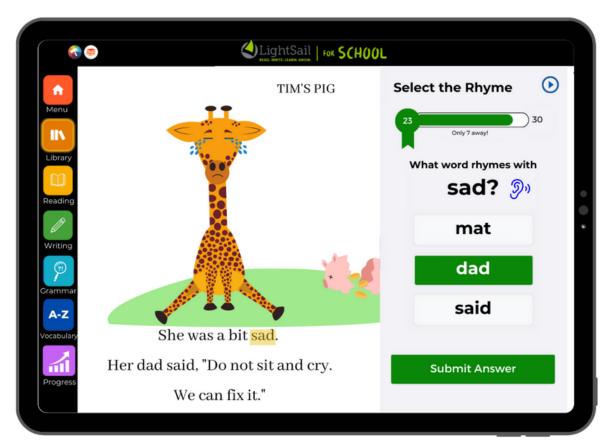
## **LightSail's Phonemic Awareness Tools**

### **Phonemic Awareness Rules within LightSail's Phonics Journeys Module**

As students read books they choose in the LightSail platform, teachers can activate various rules within the **Phonics Journeys** umbrella to support mastery of phonemic concepts. This supports mastery of concepts, allowing students to practice the skills that were introduced in the classroom within the SoR scope & sequence.

### The Phonemic Awareness Rules:

- Support mastery of specific SoR benchmark concepts in context.
- Develop student autonomy by building reading stamina while practicing concepts.
- Activate in whatever book each student chooses to read until they achieve their mastery threshold set by the teacher.



For example, when studying rhyming or working with word ladders, teachers can activate the Rhyming Rule under Phonics Journeys and set the level of practice required for students. From Beginner level where the rhyming words would be highlighted for awareness to the Advanced Rule where students must type in a word that rhymes with the highlighted word, these rules support student mastery in context with books the students choose to read.

### **Phonemic & Graphemic Support with Audio Tools**

Audio support allows words and sentences to be read aloud for confirmation of student decoding work. Students don't have to wonder if they've decoding correctly with LightSail's audio tools, preventing improper acquisition of word pronunciation.

Audio support allows words and sentences to be read aloud for confirmation of student decoding work. Students don't have to wonder if they've decoding correctly with LightSail's audio tools, preventing improper acquisition of word pronunciation.

### The Audio Tools:

- Read aloud individual words for confirmation of pronunciation.
- Read aloud sentences to assist with fluency.
- Read aloud entire paragraphs for fluency support.
- Provides teachers with books to use to support the building of foundational skills of word recognition.
- Supports the development of oral language and language comprehension.
- Offers the ability to hone students' ear-reading skills.



<sup>\*</sup>All of these tools are available within the LightSail Platform.

## **Pillar II - PHONICS**

**Phonics** is the connection between the letters or letter combinations of the alphabet to an estimated 44 sounds within the English language. The ability to make the connection between letter(s) (graphemes) and sound (phonemes) is best made when it is systematically and explicitly instructed (Birsh, 2011, p. 6).

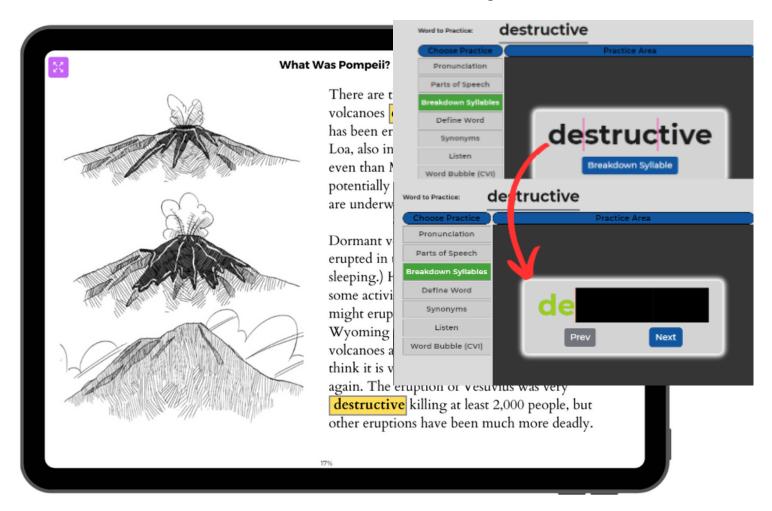
## **LightSail's Phonics Tools**

### **Decoding with Syllabification Tools**

Within LightSail's Adaptive e-Reader and the Personalized Reader module for struggling readers, LightSail's syllabification tools support the SoR methods for phonological awareness.

### The Syllabification Tool:

- Can divide multisyllabic words into syllables for specific practice.
- Breaks down words syllable by syllable for focused decoding practice.
- Provides audio tools for students to check their decoding skills.



### **Support Key Phonics Rules with LightSail's Phonics Journeys Module**

Within the LightSail Platform, books come alive with teacher-controlled rules activated in any book students choose to read in order to support mastery. The **Phonics Rules** are a collection of specific rules used to support the phonetic components and benchmarks of the SoR scope & sequence.

### The Phonics Rules:

- Support mastery of specific SoR benchmark concepts in context.
- Develop student autonomy by building reading stamina while practicing concepts.
- Activates in whatever book each student chooses to read until they achieve their mastery threshold set by the teacher.

For example, when studying consonant digraphs like /th/, teachers can activate the Consonant Digraph Rule under **Phonics Journeys** and set the level of practice required for students. From Beginner level where the digraphs would simply be highlighted in the text to the Advanced Rule where they must Identify the digraph in a word, these rules support student mastery in context with books the students choose to read.



\*All of these tools are available within the LightSail Platform.



### **Pillar III - FLUENCY**

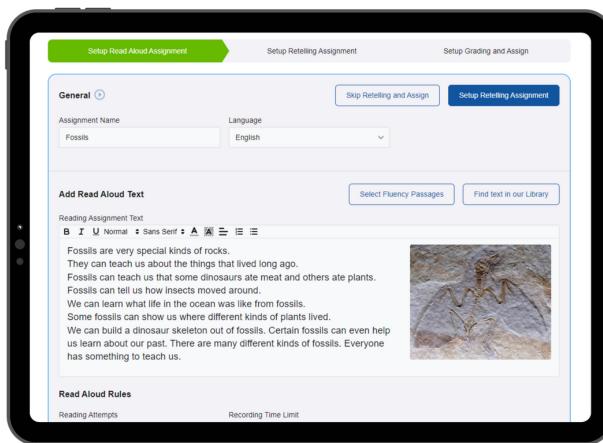
Fluency is the ability to translate print to speech at a rapid rate and with an instinctual flow that allows the reader to focus on the meaning of the text as opposed to the decoding of the words. For students just learning how to read, they need to become fluent in letter naming and sound recognition (Birsh, 2011, p. 7).

## **LightSail's Fluency Tools**

### **Fluency Support with Fluency Builder & Running Record Modules**

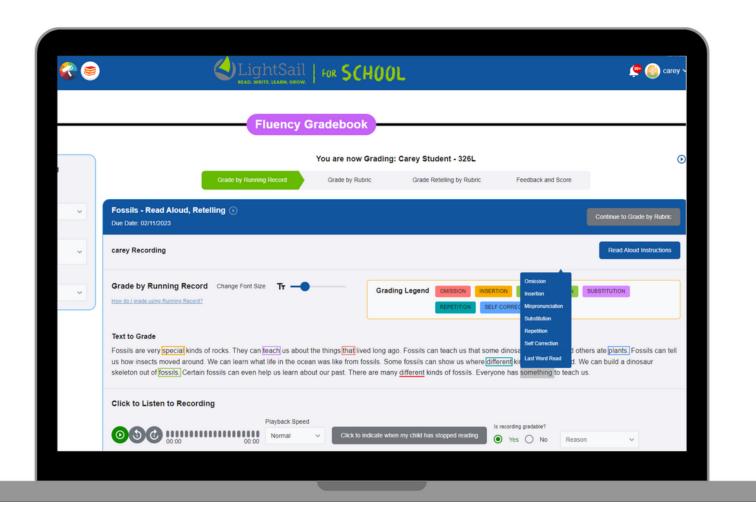
Hearing every student read aloud seems an impossible task, and is often anxiety-inducing for students. LightSail's Fluency Builder module allows a simple way for teachers to monitor individual student oral reading fluency according to the critical measures: accuracy, rate, prosody, and expression. Students can complete these assignments in the privacy of their own home, while traveling to and from school, or in a classroom environment while plugged into a headset without an anxiety-inducing audience.

Teachers can introduce text passages from any of LightSail's 10K+ books or import their own for scaffolding, focus, and differentiation. Fluency skills are easily graded by the teacher and stored in their individual Running Records. The module also contains a Retelling component, prompting students to orally narrate what they've read aloud, offering another layer of mastery checks for comprehension while reading aloud.



Fluency Builder & Running Record:

- Provides regular fluency practice for students with increasingly challenging texts.
- Assesses fluency to inform explicit instruction and practice to increase reading fluency.
- Structures literacy instruction with diagnostic and responsive opportunities to assess decoding and comprehension.
- Varies fluency assignments, from Retelling, to Fluency, to Speak-Listen-Write, allowing for multiple layers of mastery checks for both fluency & comprehension.
- Measures dimensions of fluency connected to decoding and comprehension accuracy, prosody, rate, and expression.
- Simplifies the procedure of fluency assessment, with easy grading and organization and template options stored within the LightSail module.
- Offers the opportunity for self-assessment, teacher-to-student, or peer assessment with guidance and feedback.
- Allows parents to see marked improvement over time.
- Enables future teachers to see student progress over time with shared data within the LightSail platform.



\*All of these tools are available within the LightSail Platform.



### **Pillar IV - VOCABULARY**

Vocabulary development holds the foundation for all conceptual development and it is essential that all students acquire knowledge of novel words that are not part of their oral vocabulary. Teachers should directly and explicitly teach students the meaning of words and that incorporated play and interactive activities should immediately follow up that instruction (Beck, 3).

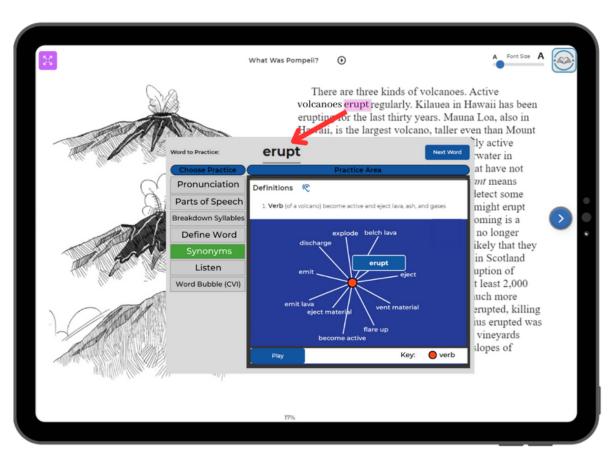
## **LightSail's Vocabulary Tools**

### **Vocabulary & Etymology with e-Reader Individual Word Features**

Tap a word in any book in LightSail, and receive additional support. Students can review the pronunciation, syllabification, and especially the dictionary definition of the word, showing etymological clues towards its meaning as well as a synonym web for increased comprehension.

### Word Features:

- Define words, including multiple meanings, parts of speech, pronunciation, and etymological support.
- Provide pronunciation guides.
- Offer audio support to hear the word read aloud.
- Includes a syllabification breakdown for practice decoding challenging words.

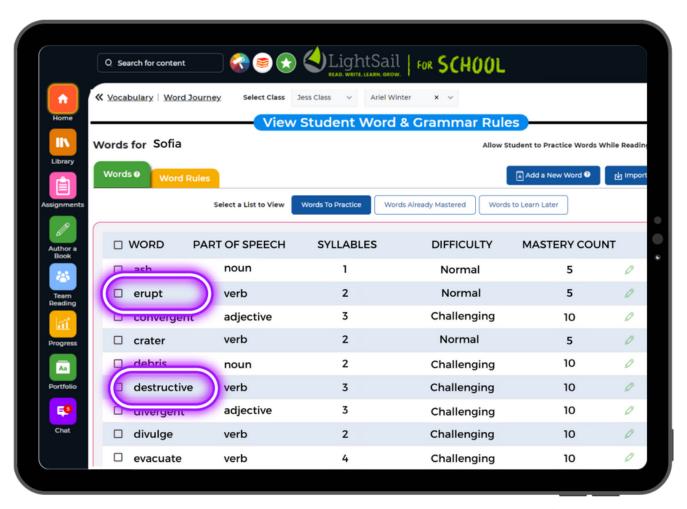


### **Vocabulary Growth with LightSail's Word Journeys Module**

Word Journeys supports student language acquisition with targeted vocabulary learning in both the student experience and guided by the teacher. Teachers can upload their own targeted vocabulary lists, create automatic assignments for troublesome words, and monitor vocabulary growth of each individual student.

### Word Journeys:

- Allows teachers to target specific vocabulary in ANY book the student chooses to read from LightSail's collection of over 10K books.
- Focus on troublesome words for individual students.
- Support a cross-curricular, collaborative approach to advanced reading.
- Tracks student progress down to the specific sentence in the book that they missed.
- Offers mastery opportunities with reviewing definitions and second-chances at answering the questions missed.
- Creates both digital and printable remediation assignments additional practice.
- Creates an ongoing list of words mastered per student.



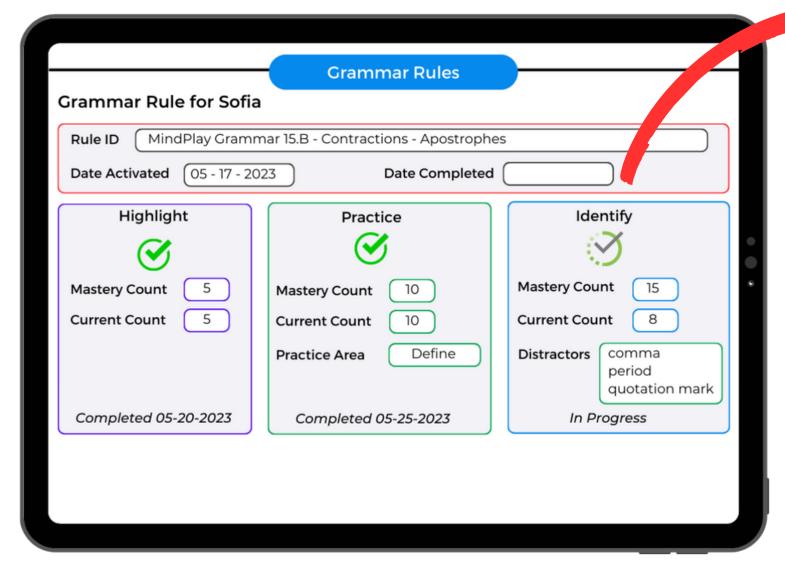


### **Understanding of Language with Grammar Journeys Module**

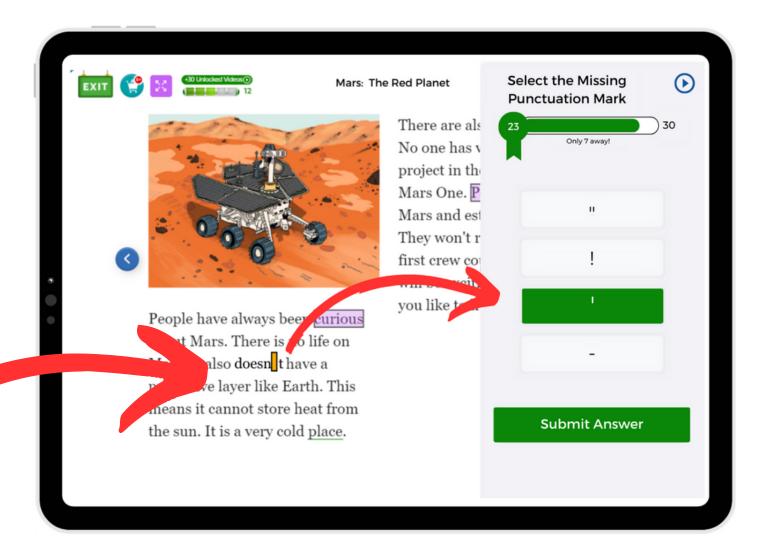
For independent readers moving into more complex grammatical structures, LightSail's Grammar Journeys helps teachers support the acquisition of grammar, syntax, semantics, and vocabulary while supporting the utilization of background knowledge. By highlighting parts of speech, punctuation, sentence structure, and common mistakes, LightSail can help students practice and master the skills taught in their classroom lessons in any book that they choose to read.

### Grammar Journeys:

- Allows automatic tracking of Grammar Rules, such as parts of speech or punctuation.
- Highlights specific grammatical principles, requiring practice.
- Removes vocabulary or punctuation from the text, prompting student response for advanced comprehension and syntactic understanding.
- Provides students with focused Grammar Work to review concepts missed.
- Offers teachers the ability to program specific rules for reinforcement that then activate in any book their students choose to read.



\*All of these tools are available within the LightSail Platform.



In these images, the teacher has activated a Grammar Rule for Sofia so she can practice identifying proper punctuation for Contractions. On the left, we can follow Sofia's Grammar Journey, as she has already successfully practiced with apostrophes being highlighted and finding them in sentences and met her mastery goal, moving her on to the next leg of her Grammar Journey.

Now she's at the Identify level where she must choose which punctuation mark belongs. You can see that the apostrophe has been removed from the word "doesn't" in this example of a LightSail Leveled Reader. Sofia currently has identified 8 different contractions with apostrophes as she has been reading in this book on Mars that she chose for herself.

Once she hits her mastery count of 15, the rule will deactivate and Sofia will move on to her next grammar challenge.



# Pillar V - READING COMPREHENSION Preparing early readers to high-school students

Comprehension is the culmination of all the foundational work a reader has practiced, as it is a complex cognitive process of combining word recognition, fluency, vocabulary, world knowledge, and verbal reasoning. Once these elements align within the processing systems in the brain, a reader then has the ability to begin reading metacognitively - they begin to think about their thinking, or think about what they are reading (Birsh, 2011, p. 8). There are a variety of strategies to help students practice this type of thinking, and Lightsail offers diverse options to help readers build their metacognitive skills.

## **LightSail's Reading Comprehension Tools**

### **MultiModal Tools with the LightSail Adaptive e-Reader**

LightSail's Adaptive e-Reader adjusts with each individual student as they progress, utilizing Lexile-based cloze questions to assess continued growth in reading comprehension. Students choose books in their exact reading zone of proximal development, allowing them to not only practice and support current reading skills, but also push further as they encounter new words and challenging sentence structures. This allows students to proficiently move from learning to read to reading to learn.

### The Adaptive e-Reader:

- Allows students to proficiently move from learning to read to reading to learn.
- Challenges students to encounter new words and topics.
- Empower students by offering unique multimodal tools to support reading needs.
- Consistently monitors reading comprehension, adjusting each students' personalized library to match their exact reading level.
- Supports independent reading and autonomy of choice.
- Provides multi-sensory, interactive tools for kinesthetic, auditory and visual learning.
- Students can read any time, anywhere by downloading content directly from LightSail.

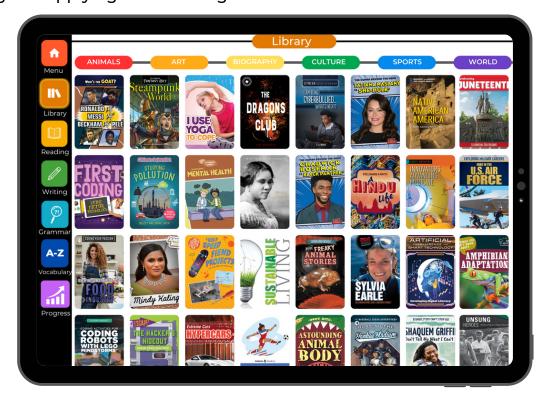
# **AMAZING SHARKS WELL SPOTTED** Leopards are spotty, fierce feline predators on land - and leopard sharks are the underwater version. These medium-sized carpet sharks laze around by day, resting on the sea floor, and rarely move unless threatened by a bigger shark. But at night they sneak into action and cruise slowly just above the reef, searching for prey such as

### **Access and Exposure to 10K+ High-Interest Books with Personalized Libraries**

With over 10,000 books in the base license package with an additional 100K available for purchase from the world's top publishers, the **LightSail Library** offers each individual reader the opportunity to actively engage with whole books. As students grow in their reading skills, the LightSail platform assesses their progress every 15 days based on their answers to reading comprehension questions using the Lexile framework. This data is then used to personalize each students' library into a collection of books in their exact zone of proximal development.

### The LightSail Library:

- Adapts based on each student's individual Lexile® level every 15 days.
- Creates a "just-right" zone, with access to texts 200 below and 200 above their current Lexile level, filterable by genre, author, title, and more.
- Builds academic language, in-depth knowledge, and increases vocabulary exposure.
- Offers over 10,000 whole books in hundreds of topics and genres.
- Allows students to choose books while staying challenged with content at their exact reading level.
- Presents motivational opportunities for engagement and practice.
- Opens the door to knowledge building in both nonfiction and fiction realms.
- Connects related content to guide students to more reading.
- Provides a cost-effective alternative to restocking library shelves.
- High-interest, low reading level paired with Lexile scores allows older students to gain confidence while building and applying their reading skills.
- Allows students to choose books and genres for both pleasure and challenge outside of their Lexile range during "Free Text" mode.
- Offers teachers access to a breadth and depth of content.
- Enables teachers to create their own personal collection of materials by importing content from any website or digital document.



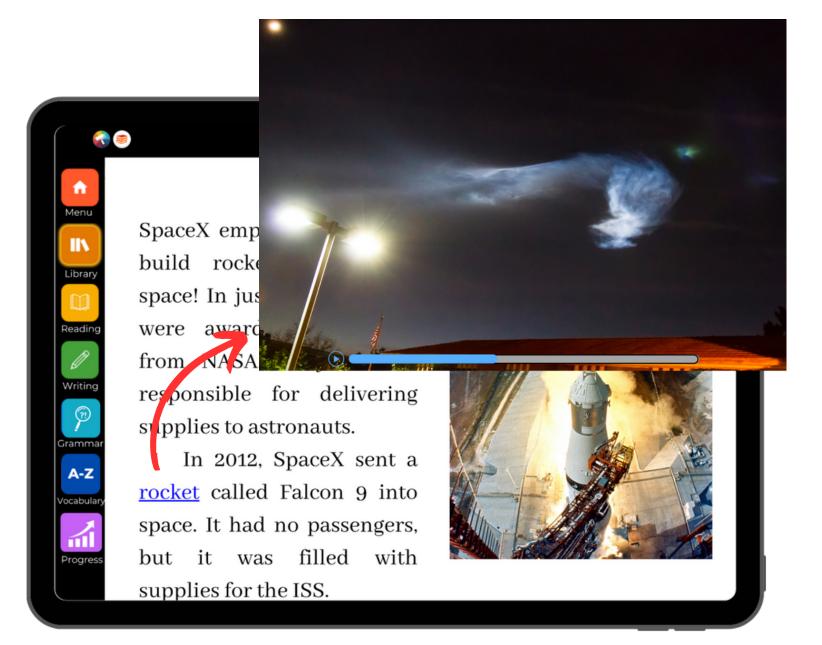


### **Multimodal Reading Experiences with Embedded Action Clips**

Within LightSail's collection of over 10,000 books, tens of thousands of action clips are embedded within the text to give students quick visual support of concepts. With our action clip collection, students move beyond the page, not only reading just the word "rocket," for example, but then seeing the SpaceX launchpad where the Falcon 9 rocket engine ignites and blasts off of the screen with a single click, adding layers of meaning and a direct visual connection from the abstract word to the concrete image in their visual memory. Action clips last only for a few seconds, but enrich the student reading experience for a lifetime.

### LightSail's Action Clips:

- Provide 5-40 seconds of intense action to create a multimodal experience.
- Enrich student learning by incorporating another visual component to their reading.
- Encourage imagination and visualization beyond the words on the page.
- Support comprehension by providing a visual representation beyond a static image.



### **Extended Multimodal Learning with LightSail's 20K+ Educational Video Library**

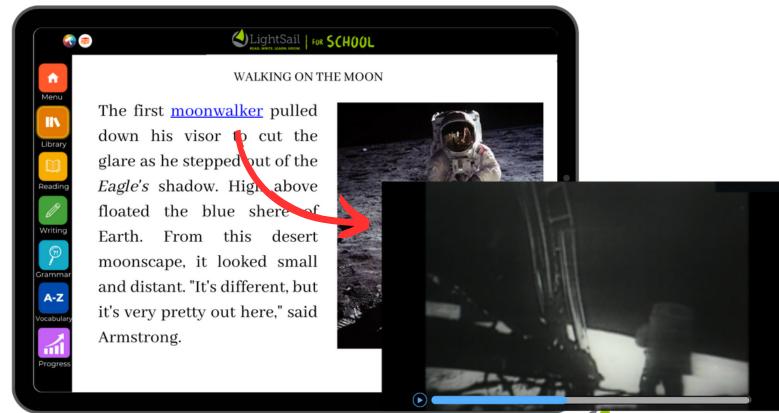
LightSail moves beyond the page into a multimedia, interactive world of reading that makes the text come alive for students. With over 20,000 educational videos and historical footage curated by our expert education team, including 5,000+ TedEd Talks, LightSail motivates students to read by unlocking videos when they meet their individual reading goals. For example, Vera - an advanced middle school reader - must read for 45 minutes before unlocking a video, but Sean - a struggling elementary reader with dyslexia - gets a video break after 10 minutes of reading.

Imagine reading about the Apollo 11 mission to the moon, and then clicking from inside your book to see the actual historical footage of Neil Armstrong walking on the moon!

Videos enrich the comprehension process even more, allowing students to visualize the content they've just read about, introducing concepts and ideas they've never heard about or seen before and providing imagery to enrich the reading experience.

### The LightSail Video Library:

- Enriches the reading experience beyond the words on the page, allowing students to experience the content in a new way.
- Shows 3-8 minute documentary-style informative videos to layer student knowledge.
- Unlock as students reach individual reading milestones, motivating students to continue on their journey.
- Engage students with additional learning experiences, prompting them to explore more related topics.
- Builds multimodal learning with sight & sound to add depth to the learning experience.



### Skill Progression into Writing with the Author a Book Module

With success in reading comes skill progression in writing. LightSail supports these skills with a variety of writing modules, but students love **Author a Book** best. Not only can students complete the entire writing process, from brainstorming and drafting, to peer and teacher review to revision, with their teacher guiding them every step of the way. At the culmination of the writing process, they can also publish their books with images and videos as a multimedia masterpiece into their classroom digital library housed on the LightSail platform or into the LightSail Universe Library with teacher approval.

Teachers can also create their own books when they have specific skills to introduce or when they want to pair specific content with decoding skills. They can import their own decodable practice materials, enriching the content with action clips, videos, and images.

### Author a Book:

- Enables students to become published authors.
- Creates multimedia experiences out of the writing process for enhanced multimodal support.
- Presents teachers the ability to create their own specific, focused content to support classroom instruction, especially aligning with SoR principles.
- Scaffolds language learning into the writing process by providing an engaging, motivational way to write.



### **Unique Reading Tools for Struggling Readers with the Personalized Reader Module**

Offering over 100 unique tools with SPED-expert created templates, LightSail's Personalized Reader module transforms texts so that each student can finally read their own way. Developed specifically to support the needs of struggling readers, including students with dyslexia, ADHD, autism, and other reading challenges, the Personalized Reader module offers a revolutionary approach to structured literacy that supports each individual student's needs. LightSail's <a href="expert SPED team">expert SPED team</a> worked for years fine-tuning and perfecting the Personalized Reader module to support any student with reading challenges, no matter how complex.

### The Personalized Reader:

- Provides differentiated and scaffolded reading support.
- Allows for text alignment with the principles of structured literacy.
- Levels the playing field to allow all students to read in the way they need.
- Opens accessibility to a new level with the tool set offered and the ability to save templates for use with specific devices.
- Offers responsive, multiple multisensory and multimodal opportunities for reading practice and application of SoR principles.
- Supports orthographic mapping support with Syllabification tool.
- Helps students decode with the Breakdown Word tool.



\*All of these tools are available within the LightSail Platform.



## **High School Highlight -LightSail's Journeys - Learning Beyond the Page**

Beyond just reading and learning, LightSail employs a Mastery Experience mentality when it comes to reading to learn. Once students have mastered the foundational skills of reading through explicit Science of Reading instruction, we continue to support them in their reading journeys throughout their middle and high school years.

Reading well goes beyond the page, requiring students to understand text complexity and move into the deeper realms of comprehension, such as depth of knowledge, summarizing, inferencing, questioning, critical thinking, and textual analysis. Depth of Knowledge, standardized by Dr. Norman Webb, in particular deepens the comprehension level normally provided by basic surface-level questioning, as it focuses on rigor and depth rather than just rote answers (Webb; Hess).

Louisa Moats reminds us that experts are still unclear as to how to teach grammar, sentence comprehension, or sentence production in one standard format; however, what can be agreed upon is through practice, calculated instruction, and properly researched techniques, even the most challenged students can learn how to navigate complex sentence structures to obtain meaning (Moats, 2010, p. 154).

## **Reading Comprehension Skills**

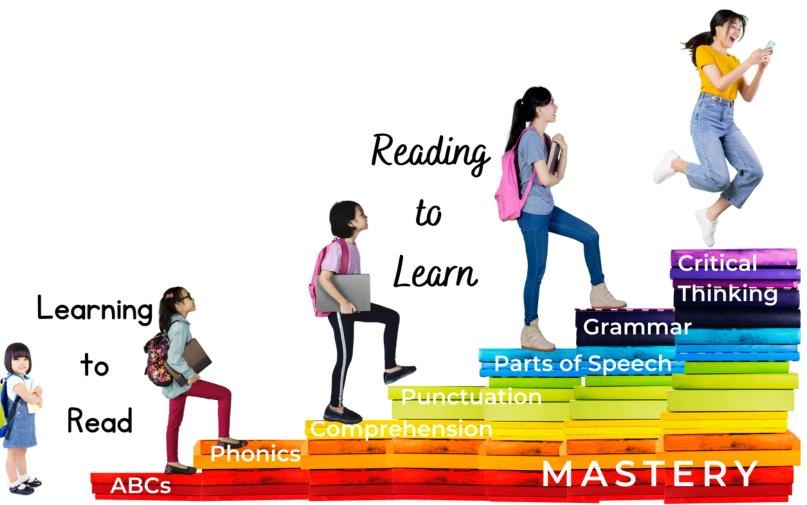
At LightSail, we understand that crystallized intelligence - a person's general knowledge, vocabulary, and reasoning - is based on factual information, while fluid intelligence - the ability to think and reason to solve novel problems - is associated with inferencing. Both rely and depend on each other to create new learning (Cattell, 1971). Contextual learning must be utilized in order for students to truly grasp the higher-level concepts that they will need as a part of being well-informed, educated citizens.

Beginning in the younger grades, students will begin learning the comprehensive skills that they will need to properly glean and process information from texts in order to create a richer world-view for themselves and to communicate effectively as a contributing member of society. The more a student is exposed to contextual and cultural experiences, the greater their general knowledge. Subsequently, their ability to make inferences and draw conclusions benefit when students tap into those experiences to create new learning. Lightsail provides hundreds of different texts to help students acquire that information. In addition, there are tens of thousands of comprehension questions already embedded throughout the LightSail collection of 10K+ books to fulfill this need.

## **Embedded Comprehension Questions**

Within every LightSail text, teachers are able to embed comprehension questions that support Reading Standards. The LightSail platform already contains tens of thousands of comprehension questions based on reading standards created by our expert team of educators embedded into many of our books, but we also enable teachers to highlight specific content and add their own questions to support their curricular goals, tagging each with a Reading Standard for further data tracking down to the individual standard. When a teacher has control over the productive use of effective questioning to direct the attention of the reader to the content of a text, the probability to deconstruct understanding and improve comprehension will increase (McKeown, et al., 2009).

When the comprehension questions are tagged with reading standards such as inference, argument, point of view, or author's purpose, LightSail is able to track student progress across all levels with detailed heat maps at the student, classroom, school, and district level. This allows for monitoring and transparency across the board within reading education when utilizing the LightSail platform.





### **Content Builder**

Over the years, teachers and schools alike have invested valuable time and money creating content and curriculum to support the growth of their student population. With the advent of modern technology, schools need a way to digitize and store this information to create a collaborative and shared educational archive that can be used from year to year across their districts. LightSail's Content Builder module allows each teacher to upload content into their own personal library, which affords them the opportunity to not only transform the text with all of the tools that LightSail has to offer, but also easily share the content across their school district to support a heterogeneous approach to curriculum sharing. This becomes extremely important when implementing a Science of Reading curriculum that follows a strict scope & sequence. When content is brought into the LightSail platform, it has the ability to be measured, tracked, analyzed, and shared across the district and over time, to monitor progress throughout a students' entire reading journey and to ensure forward progress is being made across the board in all classrooms.



Teachers also need to supplement their curriculum with real-world content, especially given the fast-paced nature of our modern world. With LightSail's Content Builder module, teachers can import content from websites, ePUBs, PDFs, and other digital documents with just a few clicks. This transforms the text into a LightSail book, allowing teachers to wipe away the distractions of external links and noise on the page, and add comprehension questions to highlight the relevant material. Then, they can assign the reading content directly to students or add it to a digital unit as a part of a larger collection of materials from both LightSail and their own content collections.

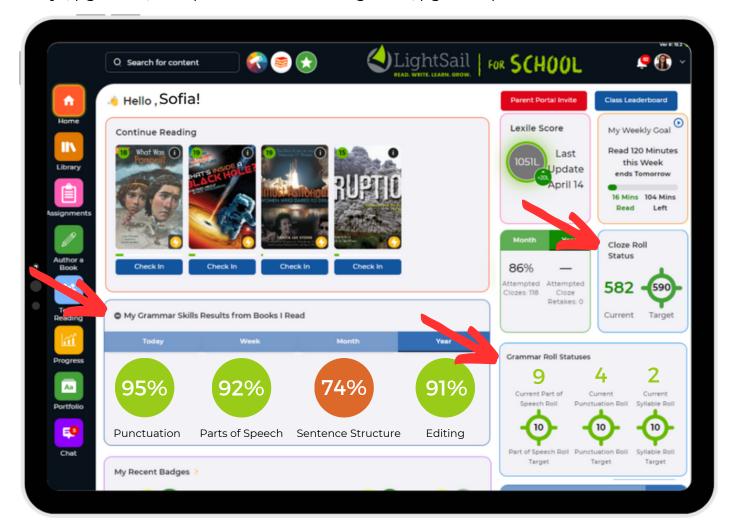
As a part of the import process, teachers can automatically add vocabulary cloze questions as well as generate in-depth reading comprehension questions including Depth of Knowledge-Leveled guestions to increase rigor and depth of thought. Aligning with the content of Reading Standards across the nation, teachers can select a grade level and skill, then allowing LightSail's AI to generate comprehensive questions and answers, and even grading student responses when requested. Teachers can edit the questions or request a more in-depth construct with the click of a button, lightening their load and storing all questions within the LightSail platform.



### **LightSail Student Literacy Journeys**

At LightSail, we emphasize the importance of contextual learning, providing a "Journey" experience that allows teachers to employ our collection of Rules that activate within ANY book a student chooses to read in order to highlight, emphasize, and ensure acquisition of specific language skills. In order to support the 5 Pillars of Reading, LightSail has created the Journey process to allow the targeting of specific skills per individual student, meeting students where they have a need and supporting them in the acquisition and mastery process contextually over time as they read books they've chosen from the LightSail library.

Within Word Journeys, Grammar Journeys, and Phonics Journeys, teachers can activate rules that require a specific level of student practice while reading. Students can choose to read ANY text within the LightSail library, and the rule will activate, supporting their mastery learning of that specific concept. The specific skilled journey stops when students achieve their individual mastery level. Students can keep track of their own mastery progress right on their dashboard, reinforcing metacognitive skills and motivating them towards their next milestone. (Return to the following pages to read more about each journey and how it supports its specific reading pillar: Phonemic Awareness, Phonics Journeys, pg. 17-18; Phonics, Phonics Journeys, pg. 19-20; Fluency - Fluency Tools, pg. 21-22; Vocabulary - Word & Grammar Journeys, pg. 23-26; Comprehension - Reading Tools, pg. 27-32)



## The Value of the Whole Book Experience

The whole book content & reading experience on LightSail provides a distinct pedagogical advantage for LightSail from the majority of other digital ELA / literacy tools & platforms.

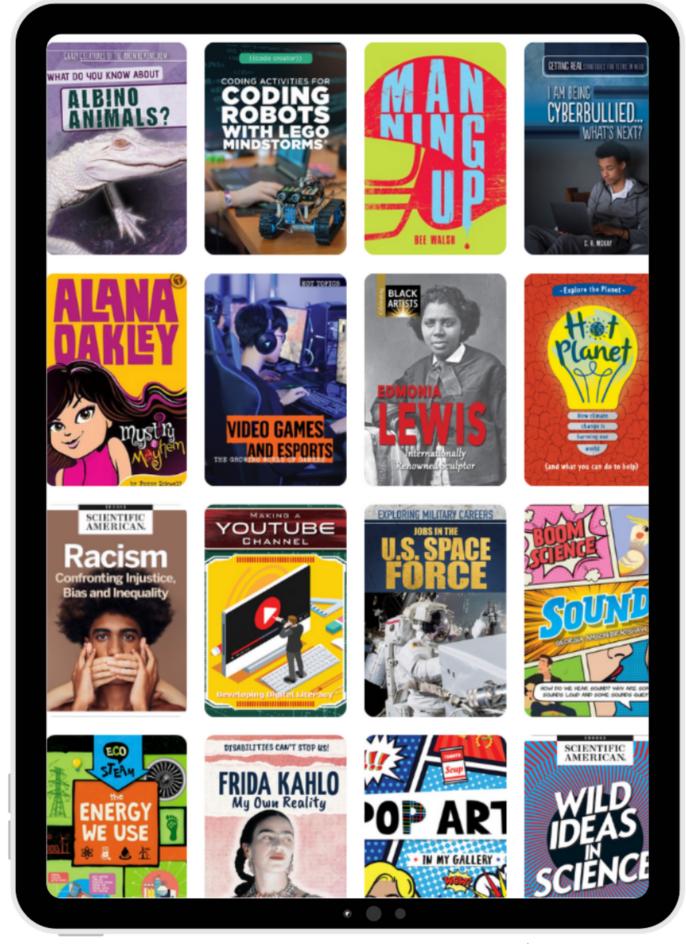
## Why Whole Books?

While they have their own purposes, passages and articles cannot sustain the growth of readers over time, providing students only with passages stunts their growth and robs them of the chance to experience a well-rounded literary experience. LightSail offers tens of thousands of whole books in a variety of genres to complement the interests of our modern students, relying on breadth and depth to carry students forward into their futures.

# Building Skills with Authentic Books









## **How LightSail Suports the Challenges of SoR Implementation**

## **Professional Development & Live Support**

LightSail's team and support are always available to help you in your implementation of the platform. We encourage you to request professional development and make specific requests so that we can help your faculty adjust to SoR alignment and implementation. Direct instruction and professional support is one of the keys to successful SoR implementation, and we're happy to support your faculty in using LightSail as a tool for this process.

## **Real-Time Data Monitoring**

The Lexile® Framework combined with the unique tools in the LightSail platform help teachers and educators link active data with reading instruction to point out problem areas as they develop. The Lexile® Framework - developed by MetaMetrics - places both the reader's ability and the text complexity within a single measurement scale, able to assess rigor and transparency into the reading experience for each student. For more information on the Lexile Framework, visit the "Research and Publications" section of the Lexile website. Rather than a grueling testing experience or waiting months for test results, LightSail offers real-time data, tracking, trends, and reports from the individual student level to the district level.

## **Real-Time Grading & Data-Tracking** (available at the Student, Class, Grade, School, & District Level)

Helping students learn to read is no easy task, which is why LightSail lightens teachers' loads by providing specific data points for each individual student. Everything on LightSail is tracked, monitored, and compiled for an overall portfolio of each student. From minutes read to books completed, grammar skills achieved to words defined, everything your students do on LightSail is tracked to provide transparency of their literacy learning journey.

Giving everyone a standard assessment tool, LightSail's data tracking allows everyone to be on the same page with benchmarks, goals, pedagogy, and data tracking. It also enables administrators at the school and district level to track student progress at any point in time from anywhere so that they can provide additional training, monitoring, and support where needed.

## **Metacognitive Learning Tool**

Not only do teachers and administrators have access to data and tracking on their dashboards, but so do LightSail students! The student dashboard and portfolio allow for metacognitive learning and growth as students learn to interpret their own data in real-time. This creates ownership, autonomy, and accountability in the reading process.

## **Shared Purpose & Goals**

With LightSail, all members of your literacy team can be on the same page at the same time monitoring the same results. Administrators can designate key areas of focus, and teachers can implement these changes within their classrooms, monitoring student progress in realtime.

Educators can also share material across the LightSail platform, encouraging a collaborative, supportive approach to the SoR implementation and alignment process. From importing content to building your own library of decodable passages, LightSail offers an all-in-one platform that supports everyone on your educational team.

### **Parent Portal**

Involving the educational community in the implementation and support of the SoR process can make all the difference. LightSail offers each family their own login through Parent Portal, so they can read and learn together, as well as consistently monitor progress. When families are able to read together, it creates a culture of reading in your community, allowing students to see themselves and others as readers.

### **Gamification & Tournaments**

Encouraging student engagement, LightSail employs a number of gamification techniques, such as badges, mastery rolls, and gamified questions embedded into texts. We even offer reading and grammar tournaments that motivate student to push towards reading goals and support the establishment of a culture of reading in your classrooms and schools. Working together in your schools to highlight a love of reading can encourage students on their journeys while allowing them to see the fun in the process. LightSail is happy to help school to set up equitable, accessible tournaments to highlight reading in your schools.

## **Quality of Access, Equity, & Accessibility**

LightSail is available to all students through any device - even offline - allowing them to download their specific book choices and work with them from anywhere at any time, whether on the bus or train on the way home from school or at home. Once their device comes online again when Wi-Fi is available, the LightSail platform automatically syncs with their device, collecting the data on all progress made and applying it to their individual records.

LightSail ensures that all students have the tools and materials they need supported by pedagogical principles. Everyone's journey is personalized on LightSail, guided by the teacher and allowing for deep engagement with whole books. This ignites a drive for reading within students that will prepare them as active contributors to their futures.



### **Conclusion**

## Specific LightSail Solutions to Support the 5 Pillars of Reading

At Lightsail, we trust teachers to guide students in the process of learning to read, utilizing an explicit, systematic scope and sequence based on the Science of Reading body of research. In the classroom, teachers model and respond to the student's learning process, guiding them through the journey by knowing when to teach a particular phonics skill, how to present it, and why it is appropriate at that time for each individual student. LightSail offers teachers the opportunity for blended learning with a platform that supports the foundational skills taught in the classroom with mastery journeys and multimedia experiences that further support a students' authentic and meaningful learning experiences.

Lightsail offers an abundance of tools that can seamlessly support any SoR curriculum adopted by a school district. Aligning with the National Panel of Reading's "Five Pillars of Reading," Lightsail ensures that our platform modules meet these recommendation as foundational components to reading instruction.

### Pillar I - Phonemic Awareness

- Teachers can activate various Phonemic Awareness tools, such as 'Rhyming Rules' (pg. 17), to have students practice recognizing, identifying, and/or inserting a rhyming word that matches others with the same set of phonemes.
- Audio tools (pg. 18) support the standardization of phonemes with proper aural structure, simultaneously supporting phonemic awareness and fluency as students expand their lexicon and skills.

### **Pillar II - Phonics**

- LightSail's Syllabication Tool (pg. 19) supports students in their decoding practice, breaking down multisyllabic words into their individual syllables, allowing students to autonomously practice the skills they've learned from classroom instruction.
- Phonics Journeys within LightSail (pg. 20) allow students to practice the specific skills where they need more practice to achieve mastery by highlighting phonetic skills within the books that they've chosen to read.

### **III. Fluency**

- LightSail's Fluency Builder module with Read Aloud and Retelling (pg. 21) lessens student anxiety of reading aloud for an audience, allowing them to practice at home, at school, or on the go, while still recording a Running Record (pg. 22) of their reading progress.
- Teachers can easily grade Fluency assignments (pg. 22) for accuracy, rate, and prosody using built-in rubrics, as well as common mistakes while reading aloud, within the module, storing data that shows progress over time.

### **IV. Vocabulary**

- LightSail's Individual Word Features (pg. 23) allow students to inquire about multiple meaning words, explore synonyms, hear the pronunciation, learn the etymology, and review the parts of speech for any word in books they've chosen to read, supporting their language acquisition and development.
- LightSail's Word Journeys module (pg. 24) allows teachers to share targeted vocabulary lists to provide specific support to individual students while also introducing new vocabulary that align with their curriculum.
- Mastery opportunities abound within the LightSail platform (pg. 24), guiding students
  through initial vocabulary encounters, mastery review practice, and remediation
  assignments when needed. This also expands cross-curricular learning opportunities to
  support vocabulary acquisition through various subject areas while students continue to
  read books that they've chosen from over 10K+ options in the LightSail Library.

### V. Comprehension

- LightSail's Decodables+ Collection (pg. 8) supports early readers as they move beyond traditional decodables into more complex language while still providing at least 40% scope and sequence words, bridging the gap from classroom instruction to leveled readers to whole, authentic books.
- LightSail's Decodables+ High Interest for middle and high school students (pg. 9) provide opportunities for engagement and reading mastery practice through authentic articles that follow LightSail's SoR scope & sequence (pg. 13).
- LightSail's Grammar Journeys (pg. 25) guides students as they explore more complex language structures, guiding them through mastery experiences of Parts of Speech, Punctuation, Sentence Structure, and common editing issues to prepare them for their futures.
- LightSail's adaptive e-Reader (pg. 27) and Personalized Reader module built for struggling readers (pg. 32) offer multimedia reading experiences that add layers of rich meaning to the reading process with embedded action clips, educational videos, related content, and reading tools.
- Extending beyond the reading process, LightSail also offers the Author a Book module (pg. 31), creating published authors from the classroom as students complete the entire writing process with their teacher's guidance.
- High School learners greatly benefit from the LightSail platform, with supported reading comprehension skills at every turn (pg. 33-35), including tens of thousands of embedded comprehension questions and activated Word & Grammar Journeys to support mastery and depth of knowledge. Teachers can supplement their curriculums using LightSail's Content Builder (pg. 35) to import their own content or any web, digital, or ePUB, automatically utilizing the LightSail Assessment Generator to embed even more relevant questions to support comprehension.

## **Engagement + Access + Motivation = Mastery**

LightSail's initial focus has always been on fostering a love of reading and learning in all students so that they can be intelligent contributors to their own futures as 21st-century citizens. Our motto aligns with SoR principles to help students move from learning to read into reading to learn. With an emphasis on structured literacy pedagogy and methodology via the Science of Reading, LightSail continues to provide educators and students with a comprehensive solution to support their literacy needs as a natural extension for the practice of SoR skills learned from explicit classroom instruction.

The modules provided by LightSail support the progression of literacy from the learning-to-read ages into the reading-to-learn years, aligning with Science of Reading principles. LightSail not only fosters a love of reading, but also exposes to students a breadth and depth of content with its robust digital library to ignite a passion for literacy that carries into their futures.

For additional support with utilizing the LightSail platform to support the Science of Reading curriculum at your school, contact us at support@lightsailed.com

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