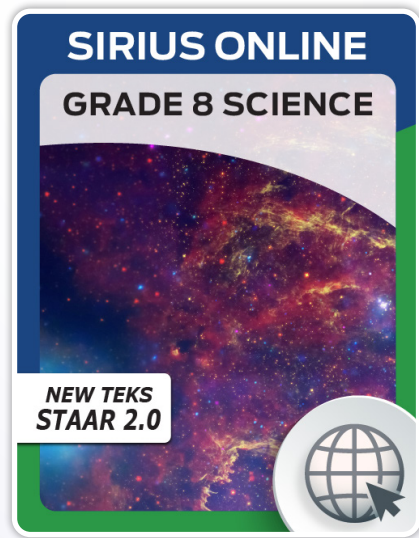


Sirius Online

TEACHER'S GUIDE

How to Implement *Sirius Online* in Your Classroom

Grade 8 Science



Welcome Educators

Welcome to the *Sirius Online* **Grade 8 Science Teacher's Guide**—a reference that helps you understand what resources you get and how you can best use them. We crafted it to save you time and help you avoid difficulties.

- *Sirius Online* is a supplement that **fills gaps** in adopted instructional materials by providing essential TEKS instruction and authentic STAAR 2.0 practice.
- Use *Sirius Online* **alongside your core curriculum** to ensure that your students learn exactly what they need to know and do on STAAR 2.0—its content (word problems), context (online and new question types), and complexity (rigor).
- With *Sirius Online*, your students will focus on the essential TEKS, including how they are tested in STAAR. By helping students apply science skills and concepts to solve STAAR word problems, Sirius **adds depth and rigor** to your curriculum.

We are honored to support you in helping your students succeed. Please contact us for assistance. **And thanks for all you do!**



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INTRODUCING SIRIUS ONLINE

Why *Sirius Online*?

TEKS-Focused Instruction

Sirius Online supplements enhance existing instructional materials by providing essential TEKS instruction and authentic STAAR 2.0 practice. *Sirius Online* is used along with a core curriculum, not as a replacement. However, *Sirius Online* is needed because it fills instructional gaps in older adopted materials by closely matching STAAR 2.0 in all its details: content, format, and rigor.

Problem-Solving Focus

Because the STAAR Grade 8 Science test focuses on problem solving, *Sirius* adds depth and rigor by helping students apply Grade 8 Science skills and concepts to solving problems. Learning to be a better problem solver is hard work. Because thinking is invisible, we cannot know for sure when students are thinking, and we cannot force students to think. But teachers can create the conditions that encourage and support thinking more deeply.

High-Quality Feedback

Effective feedback enables learning and relies upon a culture that is open to using feedback to impact future choices—to feedforward. This is where *Sirius Online*'s robust and high-quality feedback comes in. The comprehensive feedback options are designed to empower students through choice and to be supported by teachers who can focus on student learning.

Student Empowerment

Choices empower students to **become more active thinkers** and *own* their learning. *Sirius Online* choices with **actional feedback** include:

Show Hint	Gives a helpful tip before answering a question.
Sample Answer	Gives a solution or complete response to an SCR/ECR.
Submit Answer	Gives immediate feedback on the answer selected.
Try Again	Gives another try after students receive actionable feedback.
Show Correct Answer	Gives the correct answer and its feedback.

Getting Started

Sirius Online System Tutorials

After creating a class in the *Sirius Online* platform, you can add the following *Sirius Online* Tutorials. These short video-based modules include an Introduction for teachers, an overview of reporting features for administrators, and a tools tutorial for students.

FOR TEACHERS



Introduction to *Sirius Online*

This [Introduction eLearning module](#) only takes about 20 minutes to complete and will set you up for success.

Pause the video at any time to act on what you learn, such as to add courses, set up classes, and make assignments.

You can print a certificate to show completion.



Introduction to *Sirius Online* for Education Leaders

Sirius Online includes reporting features that administrators can access. This [Education Leaders eLearning module](#) provides an overview of the reports that administrators can see in their Sirius dashboard.

FOR STUDENTS



Sirius Online Tools Tutorial

Add the Sirius Student Tutorial to each of your classes to introduce students to *Sirius Online* tools. Sirius has the same tools found in the online STAAR tests. However, Sirius tools are slightly different in that they are easier to find and use with just one click—students don't have to use submenus. Use this tutorial with your students to familiarize them with the tools.

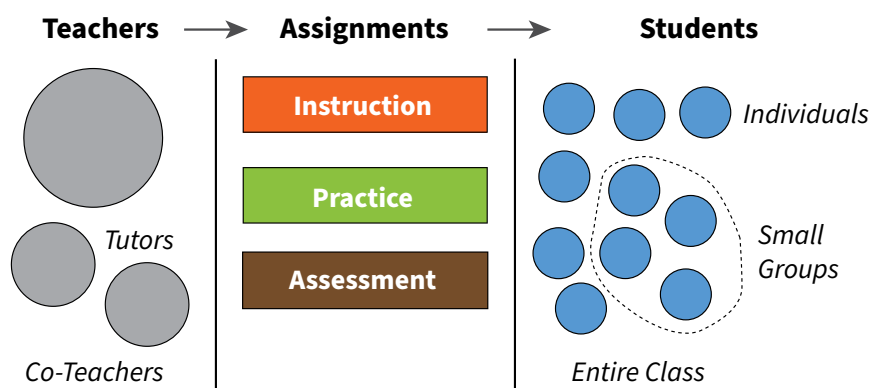
A Comprehensive Supplement

Sirius Online serves as a supplement to existing instructional materials by providing essential TEKS instruction and authentic STAAR 2.0 practice. Using Sirius adds **depth and rigor** to your curriculum.

Sirius Online is a comprehensive supplement with three distinct assignments:

- **Instruction** Explicit TEKS instruction uses the Gradual Release of Responsibility (GRR) framework.
- **Practice** Authentic STAAR 2.0 practice empowers students with scaffolds and feedback.
- **Assessment** Authentic STAAR 2.0 test items delivered with the similar STAAR tools / features.

Teachers and co-teachers can easily customize assignments for individual students, small groups, or the entire class.



Using Sirius for Different Contexts

Sirius offers easy-to-use, adaptable resources for multiple implementation models.

Multiple Implementation Models

TIME FRAMES		
Fall Semester <ul style="list-style-type: none">• Beginning of Year• First 9-Week Benchmark		Spring Semester <ul style="list-style-type: none">• Mid-Year Benchmark• After Spring Break
ABILITY LEVELS	GROUPS	INSTRUCTION
<ul style="list-style-type: none">• Does Not Meet Grade Level• Approaches Grade Level• Meets Grade Level• Masters Grade Level	<ul style="list-style-type: none">• Whole Class• Small Groups• Partners• Individuals	<ul style="list-style-type: none">• Teacher-Led• Student-Centered• Asynchronous

* The Gradual Release of Responsibility (GRR) framework promotes a careful and deliberate transition of cognitive tasks, from teacher modeling to shared responsibility between teachers and students, and finally to independent practice and application by students.

Sirius Online Supports Differentiation

Sirius Online supports differentiation by empowering teachers to curate:

- **What** content to assign based on topic, TEKS, or student needs.
- **Who** to assign content to: whole class, small groups, individuals.
- **Pacing** of how many assignments and how fast they get completed.
- **How** assignments are conducted: from teacher-led to student-centered.

Sirius Online and the RtI Framework

A practical approach to organizing the implementation of *Sirius Online* is using the Response to Intervention (RtI) model with Tier 1, 2, and 3 pathways.*

Sirius Online Provides Consistent Instructional Routines

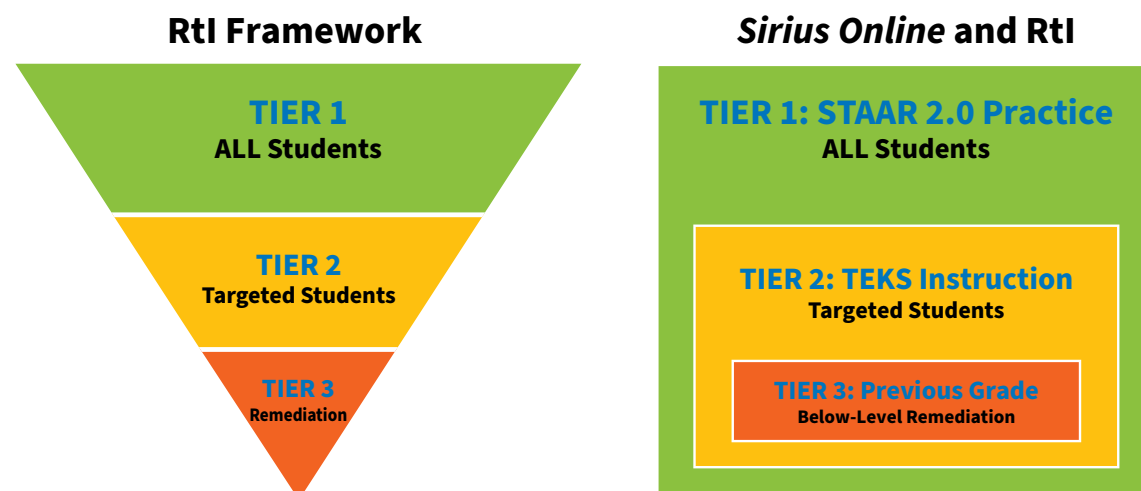
Research shows strong support for the RtI framework in improving **learning for all students**. With *Sirius Online*, you can create consistent instructional routines that support both Tier 1 and 2 students.

The Need for High Quality Tier 1 Instruction

All students benefit from instruction that is aligned with exactly what students need to *know* and *do* on the STAAR tests. Students should get regular exposure all year long to learn the STAAR-tested thinking. This includes developing fluency with online testing tools and features.

Aligning Tier 2 Support with Classroom Instruction

Tier 2 and Accelerated Instruction students often receive instruction that is unrelated to classroom instruction. *Sirius Online* empowers teachers to guide group and individual interventions for struggling Tier 2 students. With *Sirius Online*, targeted students get explicit and systematic instruction in the essential TEKS.



* Response to Intervention (RtI) is a multi-tiered approach to early identification and support for students with learning and behavior needs. It involves three tiers: Tier 1: universal interventions for all students, Tier 2: targeted group interventions for those needing additional support, and Tier 3: intensive individual interventions for students requiring specialized assistance.

TIER 1 STAAR 2.0 Practice to Show Progress for ALL Students

The new Texas accountability system emphasizes progress for all students and rewards moving students to Meets and Masters Grade Level. So throughout the year, all students should receive regular, authentic STAAR 2.0 practice, as well as mixed and spaced review (Cumulative Review). This helps students transfer what they learn in class to the **format and rigor** of the online STAAR test.

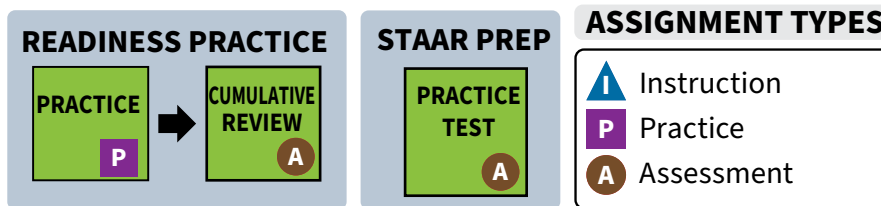
Scaffolded Practice Supports: Empowerment with Choice

Solving STAAR problems requires complex reasoning. *Sirius Online* empowers students to become more active and better problem solvers by giving students choices in how they navigate each **Practice** problem. Choice helps students feel more in control of their learning and encourages them to take greater ownership.

Students can choose scaffolded supports with rich feedback, including Hint, Sample Answer, and Show Correct Answer.

A Practice Test Builds Confidence

In the weeks before the STAAR test, use the Practice Test as a full-length “dress rehearsal.” This builds test-taking confidence and provides high-quality data.



TIER 2 TEKS Instruction for Targeted On-Level Support

Sirius Online supports targeted TEKS-based instruction with on-level resources teachers can use to support struggling and Accelerated Instruction students.



























In *Sirius Online* Reports, teachers can easily make individual or group assignments by TEKS to target specific needs.

TIER 3 Remediation for Intensive Below-Level Support

Sirius Online Tier 3 resources are provided in the form of free access to *Sirius Online* Grade 5 Science.

Assignment Planning and Pacing Guide

Sirius Online can be used over different time frames and for different needs. The table below shows two use cases: all students (Tier 1) and targeted students (Tier 2). Both uses can be combined by assigning additional resources for Tier 2 students.

Sirius Online Assignments		ALL Students TIER 1	Targeted Students TIER 2
		(0.5 h / wk)	(1 h / wk)
READINESS ASSESSMENT			
MODULE DIAGNOSTIC TEST	A		
INSTRUCTION & PRACTICE			
MODULE PREVIEW	I		
LEARN	I		
PRACTICE	P		
PROBLEM SOLVING	I		
MODULE KEY CONCEPT REVIEW	P		
CUMULATIVE REVIEW	A		
POST ASSESSMENT & PREP			
MODULE POST TEST	A		
PRACTICE TEST	A		
ASSIGNMENT TYPES		PRIORITY KEY	
 Instruction		 Recommended: the suggested minimum	
 Practice		 Encouraged: helpful in certain contexts	
 Assessment		 Optional: when time permits	
INSTRUCTION & PRACTICE DESCRIPTIONS			
MODULE PREVIEW has a Get Ready activity and Vocabulary activities.			
LEARN instruction reinforces key skills and concepts for each Readiness and Supporting TEKS.			
PRACTICE provides authentic STAAR 2.0 practice with robust scaffolds and feedback.			
PROBLEM SOLVING gives scaffolded instruction and practice in solving STAAR items.			
MODULE KEY CONCEPT REVIEW reinforces key concepts for each lesson in the module.			
CUMULATIVE REVIEW provides mixed STAAR practice for spaced review.			
TIER 1 ON-LEVEL FOR ALL STUDENTS			
Authentic and rigorous <u>STAAR 2.0 practice and assessment</u> so ALL students learn how to solve STAAR application word problems (many with a stimulus).			
TIER 2 ON-LEVEL FOR TARGETED STUDENTS			
Scaffolded <u>TEKS instruction</u> gives Accelerated Instruction and struggling students an alternative approach for the most-tested TEKS.			

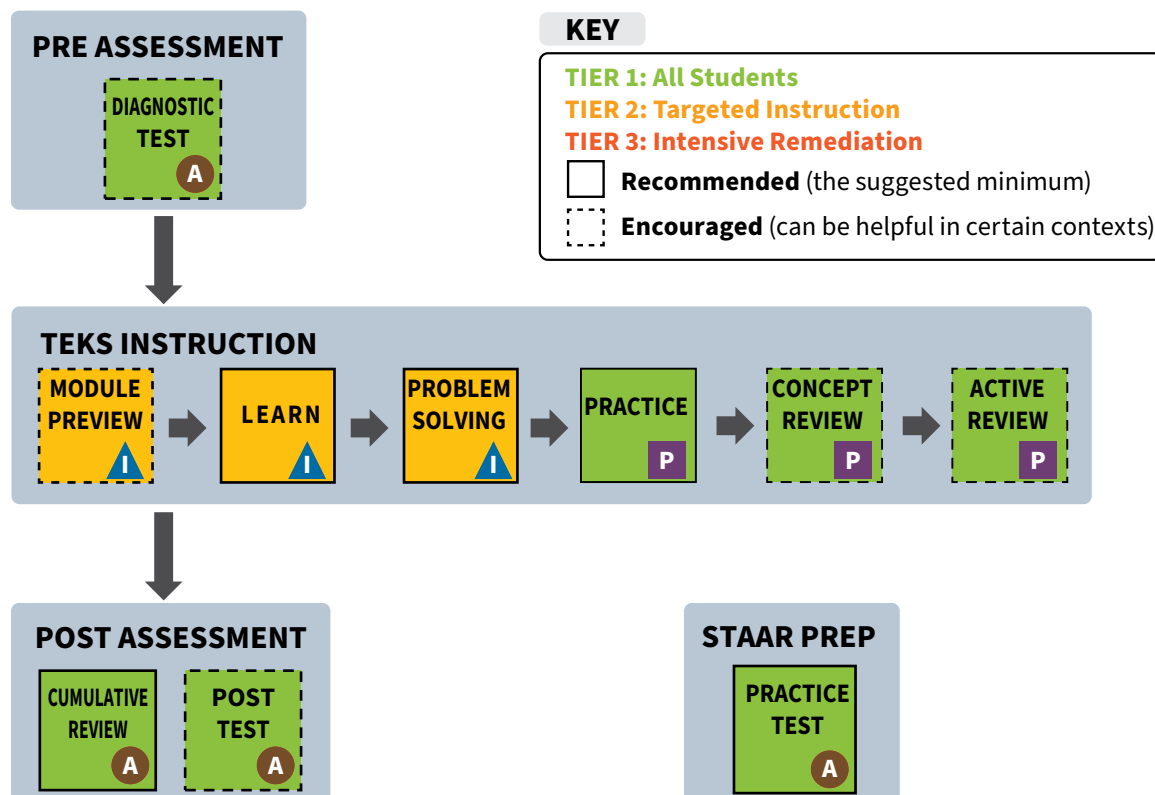
Visualizing How *Sirius Online* Assignments Interrelate

Sirius Online is a comprehensive resource that supports many distinct student needs. Below is a visualization to show how science assignments can be coordinated for **on-level** and **below-level** instruction.

ON-LEVEL RESOURCES

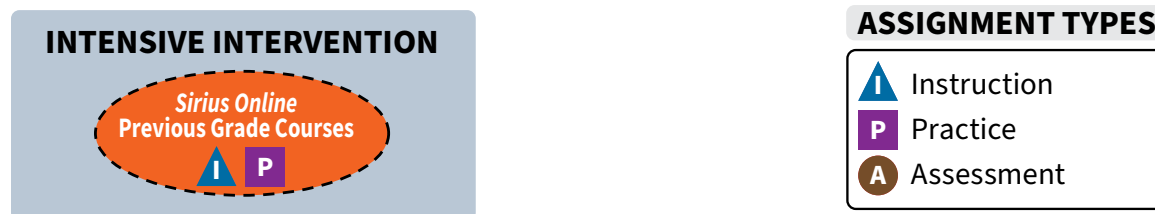
TIER 1 — All students get rigorous authentic STAAR 2.0 practice.

TIER 2 — Some students get essential TEKS instruction.






BELOW-LEVEL RESOURCES

TIER 3 — Reinforce key foundational science skills.



Three Assignment Types

Sirius Online is a comprehensive supplement with **Instruction**, **Practice**, and **Assessment**. All *Sirius Online* assignments fit into one of these three categories, and each serves different instructional purposes.

Assignment Type	Question Types	Student Feedback	Delivery Mode	TEKS Alignment
Instruction  Explicit TEKS instruction and STAAR problem solving using the Gradual Release of Responsibility (GRR) model.	STAAR and non-STAAR format items	Immediate correct or incorrect	Practice mode	Lesson level
Practice  Authentic STAAR 2.0 items with instructional scaffolds to support problem solving.	STAAR 2.0 items only	Immediate with support scaffolds	Practice mode	Each item
Assessment  Authentic STAAR 2.0 items with all online STAAR tools.	STAAR 2.0 items only	No immediate feedback	Test mode	Each item

Question Formats

The focus of *Sirius Online* **Instruction** is on learning the TEKS skills and concepts. Therefore, individual questions may not be STAAR 2.0 items or even use STAAR item formats. In contrast, all *Sirius Online* **Practice** and **Assessments** are authentic STAAR 2.0 items in content, format, and rigor. Note that Grade 8 Science module-level Key Concept Reviews and Module Review assignments are for non-STAAR-format practice.

TEKS Alignments

Instruction assignments are TEKS aligned as a whole or by subsection but may also include prerequisite TEKS. In contrast, each item in **Practice** and **Assessment** assignments is TEKS aligned, just like STAAR.

Assessments Use Test Mode

Unlike **Instruction** and **Practice**, all *Sirius Online* assessments are **delivered in Test mode**—students do not receive any immediate feedback or Hints, and the final answer for each question is scored when the final Submit button is pressed. All Assessments are **auto-scored** except for the Short Constructed Response (SCR) items, which require manual scoring.

Accommodations

Sirius Online provides multiple STAAR test accommodations so students can *routinely, independently, and effectively* use these designated supports during classroom instruction and classroom testing. These accommodations satisfy the Texas Education Agency’s student eligibility criteria requirements. Regular use of these accommodations throughout the school year can help students build fluency with the accommodations features of the STAAR exam, leading students to use those features more effectively on exam day.





All *Sirius Online* accommodations are set to “on” by default. This gives students greater control of their learning process, supporting a Universal Design for Learning (UDL) experience. Review the Accommodations settings for assessments to ensure that your students receive the supports they need. You can identify needed settings for each student in each course.

Designated Supports ⓘ					UDL Supports ⓘ				
Basic Calculator	Text To Speech	Translation	Content & Language ⓘ	Spelling Assistance	Basic Calculator	Text To Speech	Translation	Dictionary	Spelling Assistance
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Teachers can turn any of the above accommodations on or off for any student by class. So, to create separate RLA and Science accommodations, the students must be in separate classes.

Many accommodations are especially helpful for Emergent Bilingual students who are preparing to take tests in English.

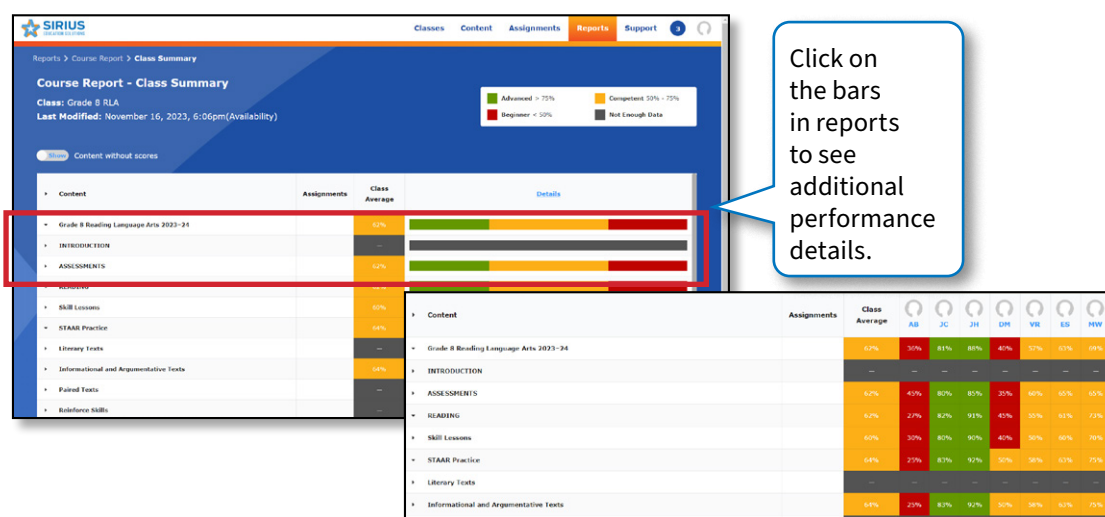
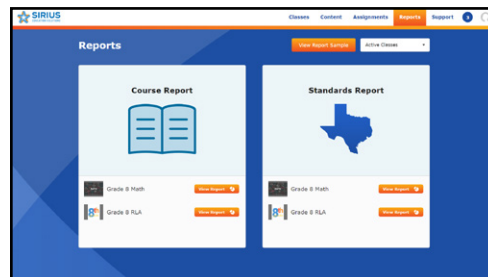
Accommodation Features

ONLINE ACCOMMODATION FEATURES		STAAR	<i>Sirius Online</i>
	Text-to-Speech (TTS) allows students to have the computer read aloud the words on the screen while highlighting them.	✓	✓
	Content and Language Supports provide pop-up supports with simplified language, definitions, and images for STAAR assessment passages and items.	✓	✓
	Spelling Assistance flags misspelled words in student writing and offers replacements. This encourages reluctant student writers to write more.	✓	✓
	Translation gives text translations in over 100 languages. Students can also have these translations spoken aloud using Text-to-Speech. NOTE: Translate is unavailable for all assessments.		✓

Reports

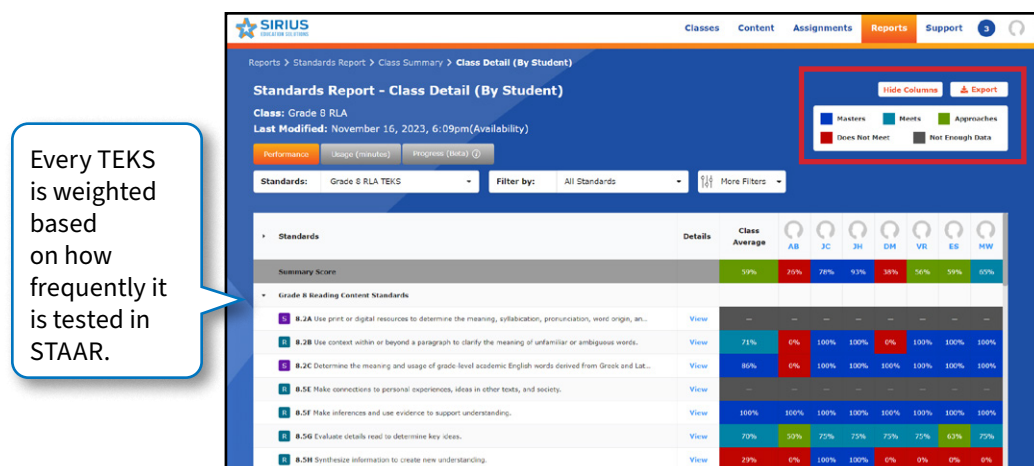
Sirius Online has reports for teachers and administrators that offer distinct but mutually supportive perspectives: **Course Reports** and **Standards Reports**. Each report provides insights into students' performance and usage.

Course Reports use a Table of Contents view divided into smaller content sections or assignments. Each assignment has three views with **Performance**, **Usage**, and **Engagement** reports by student, class, teacher, school, and even by district.



Standard Reports use the course TEKS, which can be filtered by TEKS (Readiness Standards first and then Supporting), by Reporting Categories, etc. You can analyze students' data via **Performance**, **Usage**, and **Progress** reports.

Sirius **performance levels** match STAAR with cut score percentages for Does Not Meet, Approaches, Meets, and Masters Grade Level.



Getting Help

Read On!

The Using *Sirius Online* section of this Teacher's Guide begins on the next page. It provides more in-depth information about *Sirius Online* as well as recommendations on how to implement *Sirius Online* in your classroom.

Access Platform Support

Sirius Online Support is available directly inside the platform through the Support tab to the left of your profile image.



Check the Sirius Knowledge Base

Our comprehensive, searchable knowledge base provides detailed step-by-step support instructions, including videos. It is available 24 hours/day and 7 days/week via our website [here](#).

Connect With Sirius Professionals

You can quickly connect with Sirius Technical and Customer Support in multiple ways:

Phone

(800) 942-1379, Option 2. Monday–Friday 7 am–5 pm CT

Chat

www.SiriusEducationSolutions.com

You can access the chat function in the bottom right corner of our website anytime day or night. Use chat for product support, to locate your sales representative, or to get product or order information.

Email

Support@SiriusEducationSolutions.com

Online Tickets

<https://Sirius4Learning.zohodesk.com/portal/en/home>

If you would like to track a technical or customer support issue, you can create an online ticket to view and manage the progress of your inquiry.

USING SIRIUS ONLINE

This section provides more in-depth information about *Sirius Online* as well as recommendations for ways to implement *Sirius Online* in your classroom.

1 Introduction

In addition to this Teacher's Guide, the Introduction section of your course includes several helpful resources, which are described here.

1.1 Course Contents

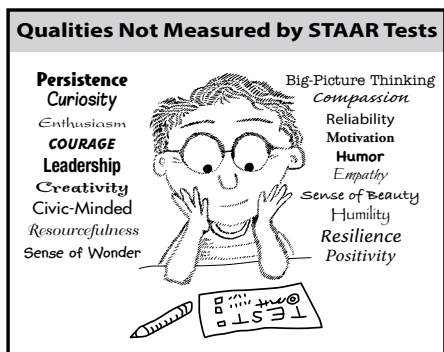
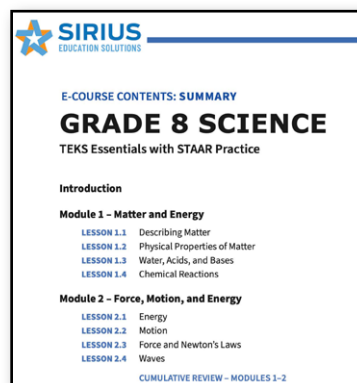
The Contents are broken into two sections. A Summary shows the course organization and a Detailed View lists every assignment in the course.

The TEKS for each assignment is included unless the assignment has multiple TEKS. Use the contents to help you plan when to use *Sirius Online* assignments.

1.2 Welcome Letter

The Welcome Letter introduces the *Sirius Online* Grade 8 Science course to students and seeks to provide context and motivation to students.

We encourage using this activity to help students process their feelings about STAAR tests. STAAR tests measure a limited range of capacities, as shown by this comic.



Assigning the Welcome Letter to your students will help provide context and motivation.

We know that students who learn exactly what is tested will indeed succeed and show progress.

1.3 STAAR Item Types ^P

Getting Familiar with STAAR Item Types are introductory lessons about the new STAAR 2.0 questions. Starting with these instructional lessons is an excellent way to set students up for further practice in the course.

ASSIGNMENT TYPES



Instruction



Practice



Assessment



SHORT CONSTRUCTED RESPONSE

MULTI-CHOICE | MULTISELECT

MULTIPART

HOT SPOT

DRAG AND DROP

TEXT ENTRY

Multiselect Questions

A multiselect item has **information**, **directions**, and **answer choices**.
Here is an example item.

A student has six cards. Each card is labeled with an element's name and chemical type as shown.

Helium nonmetal	Iron metal	Carbon nonmetal
Chlorine nonmetal	Hydrogen nonmetal	Sodium metal

Information

These lessons explain the different components of the STAAR questions, including information, directions, and actions. The lessons also explain strategies students can use to answer the STAAR item types.

Students will practice these items throughout the course, so familiarity will become fluency, which then leads to confidence.

You can assign all the Getting Familiar lessons at one time, but we suggest spreading them out and using them with teacher-led instruction.

2 Assessments

Sirius Online includes several Grade 8 Science assessments for different purposes. Below is a description of each type of assessment with an explanation for when each assessment can be used and the information each provides to both teachers and students.

All *Sirius Online* Grade 8 Science assessments are **auto-scored** (except for SCR items) and **delivered in Test mode**—students do not receive any immediate feedback or Hints, and the final answer for each question is scored when the final Submit button is pressed.

NOTE: If students **Exit** out of an assessment before pressing **Submit**, their work is saved. Students can return to a saved assessment and change any answer before pressing Submit. To limit cheating, we recommend that all assessments be given in class and ideally under simulated STAAR **testing conditions**. By exposing students to conditions similar to those they will experience when taking the actual STAAR test, you give them an opportunity to rehearse for the often more stressful testing-day context. This simulation also results in more-accurate performance data.

2.1 Module STAAR 2.0 Assessments

Sirius Online includes two types of assessment at the module level: Diagnostic Tests and Post Tests. These mini STAAR 2.0 Assessments are useful tools for teachers to check and monitor students' progress toward mastery of grade-level Readiness TEKS.

DIAGNOSTIC TEST A	POST TEST A
<ul style="list-style-type: none">Efficiently assesses all tested TEKS with authentic STAAR 2.0 itemsMatches the format of STAAR 2.0 including new question typesUse as a quick pretest or baseline	<ul style="list-style-type: none">A parallel form to the Diagnostic Test, assessing all tested TEKSMatches the format of STAAR 2.0 including new question typesCan monitor progress and identify TEKS for additional review



Testing Conditions

We strongly encourage administering the Diagnostic and Post Tests under conditions as similar as possible to the actual STAAR test. This means students should feel similar to how they will feel when taking the actual test.

2.2 Cumulative Review: Readiness STAAR 2.0 Assessments ^A

Cumulative Reviews provide *mixed* and *spaced review* of the most important tested TEKS with authentic STAAR 2.0 items. Items covering different TEKS are interleaved in an unpredictable sequence to help students move from individual-TEKS focused learning to becoming flexible STAAR problem solvers.



There are three Cumulative Review assessments, each longer than the preceding to include all previous Readiness TEKS.

2.3 Practice Test: Full-Length STAAR 2.0 Assessment ^A

One authentic, full-length STAAR test matches the STAAR redesign blueprint closely in all details. This test does not include additional field test items. It can provide insights into your students' likely STAAR test performance.



Test Mode vs. Practice Mode

Sirius Online offers practice tests, including the Diagnostic Test, Cumulative Review, Post Test, and Practice Test, in two modes. In **Test mode**, students get one attempt and they do not receive any feedback or Hints. This format is similar to the actual STAAR test. Students can also use **Practice Mode**, which gives them access to Hints and feedback.

For students to get the full benefit from the components given in Test mode, encourage them to use **Practice – Immediate Feedback** mode to analyze the items they got incorrect and to see a full solution. They can also see any sticky notes, feedback, or comments from the teacher.

3 Lesson Instruction and Practice

Each Grade 8 Science lesson is carefully designed to provide comprehensive instruction and practice on the most-tested TEKS. Each Readiness TEKS has a sequence of **Instruction** and **Practice** assignments for prerequisite skills, TEKS instruction, scaffolded instruction in problem solving, and STAAR 2.0 practice, as shown below.

LEARN

Parts of an Atom

CHECK YOUR UNDERSTANDING

Complete the table by typing the number of protons, neutrons, and electrons in each atom.

Lithium	Beryllium	Carbon	Oxygen

Systematic instruction in TEKS skills and concepts

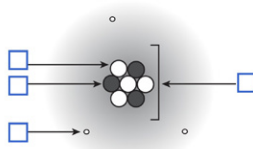
- Get Ready activity to clarify key prerequisites
- Interactive TEKS review and reinforcement
- Interactive Click2Reveal builds careful reading
- Check Your Understanding activities for quick review

PRACTICE

The diagram shows a model of an atom.

Which object in the diagram has a negative charge?

Select **ONE** correct answer.



Submit Answer **Show Hint**

Ample and authentic STAAR 2.0 practice of the TEKS as they are tested in STAAR

- 60%+ of items include a stimulus, just like STAAR
- Includes 30% new question types
- Hints and actionable feedback help students build problem-solving capacities

PROBLEM SOLVING

CHALLENGE PROBLEM FOR THIS LESSON

Read this challenging problem carefully.

A scientist made the table below to record some atomic properties of four elements.

Element	Number of Protons	Number of Neutrons	Number of Electrons in Outer Shell
X	9	10	9
Y	9	10	8
Z	14	14	10
W	21	20	10

Based on the information in the table, which conclusion about the chemical reactivity of these elements is valid?

Answer choices:


- A. Element X is the most reactive because it has the most protons.
- B. Element Y is the most reactive because it has 7 electrons in the outer shell.
- C. Element Z is the most reactive because it has an equal number of protons and neutrons.
- D. Element W is the most reactive because it has the most electrons.

PLAIN and SOLVE

Read this student's thoughts and complete the statements.

Student thinks:

The chemical reactivity of an atom does not depend on the number of protons or neutrons. So, A, C, and W are not correct. Chemical reactivity depends on the number of electrons in the outer shell. Element Y has 8 electrons and needs only one more electron to complete its outer shell, so it is reactive. The choice is B.



Scaffolded instruction and practice in how to understand and solve STAAR word problems

- Builds problem-solving skills and confidence
- Engages both struggling and strong students
- Shows common student errors with alternatives

Teachers can group-assign all components of **Lesson Instruction and Practice** to all classes in one step.

Alternatively, teachers can customize assignments by selecting some components and/or adjusting for different classes. Assignments can also be made to groups of students within a class.

All assignments are auto-scored and provide students with immediate feedback.

4 Additional Module Resources

4.1 Module Opener: Getting Started P

There are four modules in this course, each corresponding to a TEKS Reporting Category. In addition to a Diagnostic Test, each of these modules includes an introductory assignment to help students get started.

Preview

Each Preview assignment begins with a strong visual to capture a memorable application of the module content. Students respond to a Get Ready activity with a short written response that helps them engage prior knowledge and show content-based self expression.



Students then complete a Vocabulary Review section on prerequisite terms and a Vocabulary Preview section to interact with key new terms that will be presented in the Module.

4.2 Module Closer: Review P

In addition to the introductory assignments, each Module includes two Module-concluding assignments. One is the Post Test, which was described in the Assessment section of this guide. The other is the Key Concept Review.

Key Concept Review

Each Key Concept Review assignment guides students to review the vocabulary and key concepts of the Module. The review is organized by lesson with short summary paragraphs and interactions to help students discern the interrelationships among key terms.



5 Planning *Sirius Online* Implementations

Sirius Online was designed to help ALL students learn the tested TEKS in the context of how they are tested in STAAR. And *Sirius Online* is a comprehensive supplement that is easily adapted for a wide range of use cases and student needs.

For support in creating a unique implementation for your particular needs, you may want to consider the following questions to guide your planning.

Questions to Guide Planning

Intentions	What are our goals?
Evaluation	What does success look like? How will we measure it?
Obstacles	What are our primary needs or challenges?
Timing	Where does the student instruction fit into the school year? How can we integrate <i>Sirius Online</i> throughout the school year?
Integration	Where does <i>Sirius Online</i> integrate into the curriculum/classes?
Coordination	How does <i>Sirius Online</i> connect to the core curriculum?
Needs	What are the instructional pathways for different students?

There is no one best way to use *Sirius Online* because each classroom has unique needs. However, we strongly encourage implementations that extend throughout the full school year. Research shows that “cramming” is not effective for complex cognitive tasks such as online STAAR word problem solving.

6 Instructional Tips for Using *Sirius Online*

6.1 Make a Commitment to Use *Sirius Online*

New habits do not just happen. They take deliberate effort. We encourage teachers to make a commitment to use *Sirius Online* (ideally each week) and to designate a certain day and time to assign, review student work, and plan for next steps.

Rhythm and routine can be powerful supports in encouraging students to apply themselves. Your internal commitment to use *Sirius Online* (something new) will be sensed and respected by students. Students tend to follow their teachers.

6.2 Use Instruction and Practice for Ungraded Activities

We highly recommend that **Instruction** and **Practice** assignments be ungraded. Research shows that with low-stakes activities, students are more likely to take risks, make mistakes, and use the feedback to get better. In contrast, we recommend using **Assessments** to help students focus on getting the correct answer: performing instead of practicing.

Although teachers can convert **Practice** assignments into **Assessments** (which withhold feedback), we suggest limiting this approach to special situations, such as when students are confident that they know the material.

6.3 Release Assignments for Student Review

We encourage teachers to give students opportunities to review their work in assignments. You can help students develop the habit of using the Practice – Immediate Feedback mode to analyze the items they got correct and/or incorrect. In this mode, students receive access to full solutions as well as their Highlights, Sticky Notes, and feedback comments from the teacher. For assignments you plan to assess, you can delay their release until all students have submitted.





6.4 Build Teacher–Student Relationships

We encourage teachers to routinely assign the student Self-Evaluation at the end of each **Instruction** and **Practice** task. This exercise allows teachers to gauge students’:

- **Confidence** in what they have learned/practiced,
- **Effort**, or how hard they tried, and
- **Reflections**, through short written responses.





Sirius Online **Instruction** and **Practice** assignments ask students to reflect on their work with three end-of-assignment unscored questions:

CONFIDENCE How confident are you in what you learned?



I'm confused. I feel okay. I feel pretty confident. I'm an expert!

EFFORT How hard did you focus or try?



Not Much Effort Some Effort Good Effort My Best Effort

REFLECTION Complete one or more of the sentence stems below.

- I learned...
- I had difficulty...
- I feel...

Teachers can respond directly to each student's written response to encourage, support, and challenge them individually.

Many students are poor judges of their **learning** and/or **effort**. Teachers should look for students who are particularly off—meaning their **performance** does not match their confidence, and/or their **effort** does not match their **time on task**.

Understanding and working with students' self-perceptions can be a key factor in helping change student behaviors. Research shows that students' self-efficacy or beliefs may be the most important factor in student engagement.

Teachers can share observations including student written responses (anonymously) with the entire class. This shows that the teacher is reviewing student work and focusing on productive problem-solving behaviors instead of scores. When students feel seen, they tend to engage more deeply.

6.5 Focus on Problem Solving

STAAR Grade 8 Science Tests Are Problem-Solving Tests

Grade 8 Science tests emphasize problem solving. So instead of recall, students need to apply their knowledge of Grades 6–8 science skills and concepts to solve application problems. In fact, the majority of Grade 8 Science STAAR test items include a stimulus such as a graph, table, or image that students need to analyze. Thus, STAAR test questions demand careful reading, identifying given information and what is being asked, integrating and applying Grade 8 Science concepts, and navigating new STAAR 2.0 question types as well as the online testing platform.

Learning Problem Solving Is a Process: It Takes Time and Persistence

Helping students become better and more confident STAAR problem solvers is challenging and takes time. The learning process for problem solving is similar to riding a bicycle—students learn by doing it themselves. *Sirius Online* has ample opportunities for students to practice with scaffolds, activating them to make choices and take greater ownership of the problem-solving processes.

Thinking is a skill, and some students will be reluctant to apply themselves to diligently solving problems. But you cannot do the work for students. Some teachers need to be careful to monitor and limit the help they provide students to avoid undermining the necessary struggle. Because thinking is invisible, we cannot know for sure when students are thinking. We can only create the conditions that encourage and support them to think more deeply.

Three Key Thinking Habits Teachers Can Promote

To promote careful thinking and problem-solving, we suggest teachers focus on positive affirmations for three common bad thinking habits (and related limiting attitudes). Teachers can repeat each phrase regularly, such as after a student request for help.

Take time to think	Encourage students to slow down and resist impulsivity.
Keep at it	Encourage students to try again and practice persistence.
Consider all options	Encourage students to be systematic and not rigid.

For a singular instructional goal, we suggest trying any strategies that slow students down, so they think more carefully. Most of human thinking happens fast and automatically. Careful and deliberate thinking takes time and effort.

7 Concluding Questions

7.1 How Do I Get Students' and Parents' Support?

Your belief that Sirius will help your students is the key, because this belief will be transmitted to students and parents in everything you say and do. Students and parents trust you and will see your sincere efforts to help.

No surprise, the more you understand *Sirius Online*, the better you can use and appreciate its value in supporting your students as they learn the essential tested TEKS and practice them in the exact ways they are tested in STAAR 2.0.

Yes, *Sirius Online* can be an efficient way to improve your students' STAAR performance. But it also allows you to share a process for getting better at STAAR-tested thinking. All students can use these methods to improve their thinking skills and show progress on the STAAR test. And this type of thinking will serve students well beyond the classroom.

When talking with students and their parents, it is helpful to know how they perceive STAAR and testing in general. Because STAAR is a requirement, avoid negative talk about STAAR tests. Instead, focus on each student's specific needs. Share that this is a different kind of test in that it is mostly made up of stimulus-based questions. Also stress that with *Sirius Online*, students can learn effective thinking strategies. They will also gain resilience as they take advantage of numerous opportunities to practice and refine their understanding of Grade 8 Science and STAAR-style problem solving.

Complaining about STAAR to students can give them an excuse not to work hard to develop their capacities. And some students are looking for an excuse!

7.2 What Evidence Supports the Use of *Sirius Online*?

Sirius Online is research-based. Because it is grounded in research and design principles, its resources are effective and easy to use to support teachers in helping students learn the essential TEKS and succeed on STAAR tests.

Sirius has partnered with McREL International

to research the following expected outcomes in students'

- STAAR test performance
- Engagement and motivation with STAAR content
- Confidence in answering complex STAAR questions
- Self-efficacy about improving STAAR test performance

McREL
INTERNATIONAL

Sirius Education Solutions is also conducting ongoing user-experience and efficacy research to continuously improve the student and educator experience.

Sirius Companion Workbooks

Blended Learning That Is Easy to Use

Sirius Online courses and our complementary print resources have similar organization and content, so you can easily move between each medium and adapt to best **serve the needs of your unique students.**

Many **struggling students often take greater ownership** of their learning when they can write in their OWN workbooks.

Additionally, students are better able to **transfer their thinking** processes to an online format when they see and experience the same content in both the print and online formats.

Sirius Online's **comprehensive courses integrate all** the content from our print-based workbooks and a full-length Practice Test. And with online resources, students receive immediate feedback and teachers gain powerful auto-scoring and reporting tools.

You can register [here](#) to **examine our printed workbooks** as eBooks.



Contact us at SiriusEducationSolutions.com to learn more!