Experience Chemistry
Experience Chemistry is an exciting, innovative way to teach chemistry. It uses phenomena to engage students in real-world inquiry. The program organization helps you implement the three dimensions around Anchoring, Investigative, and Everyday Phenomena.

Phenomena Organization

- **ANCHORING PHENOMENON**
  - 5 Storylines – Organized around Anchoring Phenomena
  - 3-5 Investigations per Storyline – Organized around Investigative Phenomena
  - 3-6 Experiences per Investigation – Experience Everyday Phenomena
Launch every Storyline with an **ANCHORING PHENOMENON** that sets a clear narrative for studying the core concept. Students ask questions and explain the phenomenon on their sense-making journey.

Introduce every investigation with an **INVESTIGATIVE PHENOMENON** that provides another opportunity for students to interact with an engaging event and gather knowledge to make sense of the Anchoring Phenomenon.

Engage students in an everyday way with **EVERYDAY PHENOMENA**. From Flinn Scientific inquiry labs to modeling activities, students are motivated to figure out why and how a phenomenon happens.

**Plus Related Phenomena in the Teacher Guide**
Want more ideas? The Teacher Guide offers alternative suggestions for every phenomenon.

How can we produce better foods?
Experience Chemistry is the science of doing! An exclusive partnership with Flinn Scientific, the leading classroom lab solution provider, gives students access to its labs and activities directly in Experience Chemistry.

Hands-on Labs

Every learning experience in Experience Chemistry includes a hands-on inquiry lab developed by Flinn Scientific. To save you time, each lab is available in four versions to meet your diverse classroom needs.
Engineering Design Challenges
Students design, test, and evaluate solutions. Focusing on defining and solving problems strengthens science and engineering skills.

Performance Assessments
Students demonstrate standards mastery by applying their understanding to a new situation in a Performance-Based Assessment at the end of every Investigation.

Lab Kits
Simplify set-up with time-saving kits from Flinn Scientific. Foster greater inquiry learning by having readily accessible lab materials.

Virtual Reality
The 360° lab simulations bring chemistry to life. Students can use the latest lab equipment and experiment with different chemicals in a safe, no-risk environment.

Lab Videos
Short, digestible videos enrich the lab experience. Engaging Overview Videos introduce the lab to students while Summary Videos connect lab concepts to phenomena.
It’s authentic...it’s compelling...it’s REAL science. Ongoing exposure to everyday phenomena allows students to see chemistry in their own lives and in the world around them. Students use the three dimensions as they form connections to the Phenomena. This is real science for real learning.

- Give all students access to phenomena in compelling Virtual Labs.

Write, defend, and revisit arguments during Claim-Evidence-Reasoning (CER) exercises.

Simulate real-world tasks to solve problems and answer questions with Digital Interactivities.

Define problems and propose design solutions in Problem-Based Learning experiences.
Improve visual and media literacy while watching Animations that explain complex topics.

Build science literacy skills with Authentic Readings and Writing About Science activities.

Promote collaboration and improve understanding with Peer Review and Discussion.

PhET Simulations engage students in an intuitive, game-like environment.

3-D Assessment Tasks
Complete Assessment Suite

- **Performance-Based Assessments** measure students’ mastery of the science and engineering practices.

- “Assess on the Spot” prompts in the Teacher Guide provide quick Formative Assessment opportunities.

- For **Summative Assessments**, assign customizable interactive online quizzes and 3-D assessments.

- **Benchmark 3-D Assessments** work well for midterm and final exams.

- Students revisit the Anchoring and Investigative Phenomena multiple times as they make sense of the topic.

Math Practice
Applicable, Real-World Math Skills

- **Sample Problems** give students stepped-out support to build math skills for chemistry.

- **Virtual Nerd Tutorial Videos** offer approachable mathematics explanations delivered by on-screen instructors.

- **Math Problem Banks** on the Savvas Realize™ digital platform let you assign more math practice as needed.

- **Analyze Data Activities** compare and analyze data from real experiments.
Experience Chemistry offers a simple framework for teaching in a modern chemistry classroom.

- **A 5E teaching sequence** with planners, assessments, and differentiation reduces prep time, so you can focus on providing great learning experiences for your students.
- An innovative **Teacher Guide** includes the resources you desire to facilitate an authentic and exciting instructional experience.
- Personalize your course with additional activities or embed your own. Options to customize allow for an experience as unique as your classroom.

**INVESTIGATIVE PHENOMENON**

How do we design materials for a specific function?

**CONNECTION TO THE ANCHORING PHENOMENON**

Students identify properties of different states of matter and use this to better design materials and foods.

**EXPERIENCES**

1. States of Matter (XX min), pp. 200–212
2. Modeling Phase Changes (XX min), pp. 213
3. Comparing Ionic and Molecular Compounds (XX min), pp. 224–228
6. Properties of Solutions (XX min), pp. 249–258

**INVESTIGATION EVALUATION**

- Performance-Based Assessment
- 3-D Assessment
- Physical Properties of Materials Performance Notebook: Performance-Based Assessment, p. 259; Appendix C, p. XX
- Performance-Based Assessment, p. 259; Appendix C, p. XX

**NEXT GENERATION SCIENCE STANDARDS**

HS-PS1-3, HS-PS2-4, HS-PS3-5
HS-PS1-7

*Pacing includes both Experience Notebook coverage and core instructional activities.

**INSTRUCTIONAL SEGMENT 3**

**PLANNER**

Understanding Chemical Reactions

In this storyline, students explore states of matter and phase changes. They investigate molar relationships and calculate percent composition of compounds. Students analyze different types of chemical reactions \([PS1.B]\) as they balance chemical equations. They complete chemical calculations on moles, mass, and volume. They explore energy \([CCC-5]\) in chemical bonds and analyze enthalpy in changes of state.

**Experience It for Yourself.**

Request samples and demos at: [Savvas.com/ExperienceChemistry](http://Savvas.com/ExperienceChemistry)