### PHENOMENA

# Experience Chemistry in the Earth System

# **A Phenomenal Experience**

# Phenomena-based organization maximizes student engagement

#### **Anchoring Phenomena**

Launch each Instructional Segment with an engaging Anchoring Phenomenon Video. This introduces and unifies the upcoming chemistry concepts and gives students a context for learning. Students revisit the Anchoring Phenomenon at the end of every Investigation as they build their knowledge and broaden their understanding. At the end of the Instructional Segment, students solidify their mastery of the concepts behind the Anchoring Phenomenon.

#### **Investigative Phenomena**

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. Students track their understanding in a Claims-Evidence-Reasoning or a Modeling activity. They revisit the Investigative Phenomenon at the end of every Experience.

#### **Everyday Phenomena**

Experience Chemistry focuses the instructional sequence on building understanding of core concepts. These experiences include interactions with Everyday Phenomena through hands-on inquiry labs, animations, mathematical modeling, virtual reality simulations, and more. Ongoing exposure to Everyday Phenomena encourages students to apply the science and engineering practices in every lesson and form connections to the Investigative and Anchoring Phenomena.

#### **Alternative Phenomena**

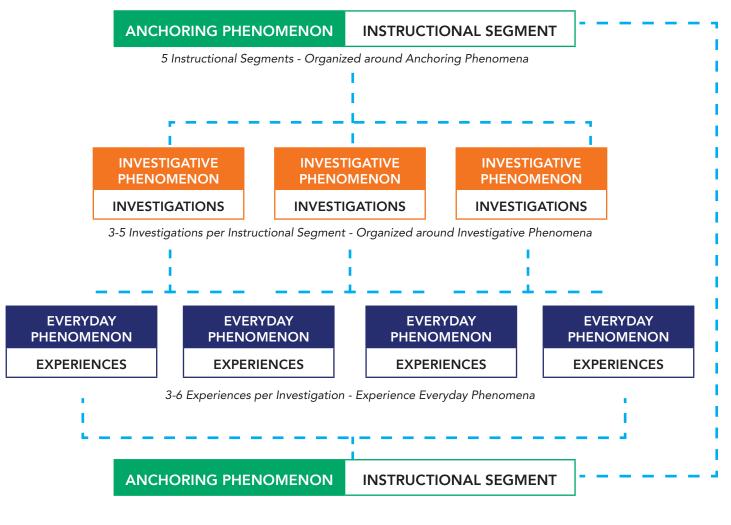
To maximize instructor flexibility, suggestions for alternative phenomena are listed in the margins of the Teacher Guide. Substitute a related Alternative Phenomenon or create a connection to a local phenomenon to personalize the classroom experience.







## Phenomenon-based NGSS Organization



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