

# Product Overview

*Warm Up to Science* offers student-centered engagement activities for immediate student involvement. Scientifically based research supports the use of this form of frequent conceptual exposure to enhance student understanding.

Activities are designed to require 5–10 minutes of class time and are written with the cognitive rigor demanded by the Texas Essential Knowledge and Skills (TEKS). Students must use critical thinking skills as they are presented with content-specific activities or with visual stimuli, including charts, graphs, and tables. Each activity may be used as an engagement for a new lesson, as a method to enhance retention, and as a means to support State of Texas Assessment of Academic Readiness (STAAR®) preparation. Activities are grouped by STAAR® strands and sequenced by specific TEKS and student expectations.

*Warm Up to Science* is presented in an odd-even page format. The odd-numbered pages include activity answer keys and supportive teacher notes. The even-numbered pages present specific student activities that are easily photocopied. For activities with graphics or photographs, use a photocopy setting to ensure images are printed correctly.

The digital version of *Warm Up to Science* is presented in the opposite order of the print version. The student page comes before the teacher page. This design lessens the chances of students seeing answers first. After students work through the activity, the teacher can easily advance to the next page for students to self-check their work if desired.

## Why Begin Class with a Warm-Up?

*Warm Up to Science* incorporates instructional strategies that have been scientifically proven to enhance student achievement. Some examples of these effective instructional strategies identified in research focus on the teacher's ability to set high expectations for students, activate prior knowledge, provide feedback that reinforces learning, and allow for recognition of effort. In this type of learning environment, students will have the opportunity to

- identify similarities and differences,
- summarize information,
- practice process and critical thinking skills, and
- interpret nonlinguistic stimuli.

*Warm Up to Science* activities are designed to involve students in critical thinking processes. The activities focus on items that are content-specific or items with visual stimuli, including charts, graphs, and tables. Activities are written to be brief and targeted and can be used as formative assessment tools to gauge students' comprehension of a concept. The activities require only 5–10 minutes of class time.