

# Science Links 9 AND Science Links 10

## FEATURE OUTLINE



### Feature STSE

### The Science Links Advantage

<b>Content Development</b>	Students will be intrigued by high-interest narrative developed through an STSE lens.
<b>Case Study Investigations</b>	Compelling STSE-based <i>Case Studies</i> in an investigation format support students as they analyze STSE issues related to the unit content.
<b>Strange Tales in Science</b>	Real science stories presented in a graphic novel format will engage learners. In one case students follow the adventures of a lone carbon atom as it journeys through time and space in its quest for immortality. In another, they learn about a NASA experiment designed to find out how much radiation enters the human body during space travel.
<b>Making a Difference</b>	Students will be inspired by the extraordinary stories of local activist high school students who have made a difference in the environment or society through their own initiatives.
<b>Unit Projects</b>	Each unit provides a choice of two projects—one investigative and one research-based. In completing the projects, students will apply their newly acquired knowledge and skills in investigating and analyzing related environmental issues.
<b>Unit Openers</b>	The environmental aspects of the unit are brought to life through a selection of pop culture.

## INQUIRY SKILLS DEVELOPMENT

<b>Activities</b>	Select activities provide focused instruction in a specific inquiry skill as students explore a question or problem.
<b>Investigations</b>	Students learn the skills of scientific inquiry through engagement in a variety of structured, plan-your-own, and data-analysis investigations.
<b>Safety Skills</b>	Guidance on safe use of materials and equipment is provided throughout.
<b>Science Skills Toolkit</b>	Provides guidance and support in individual skills of inquiry and research.

## RESEARCH SKILLS DEVELOPMENT

<b>Activities</b>	Activities provide instruction in research skills as students develop their content knowledge.
<b>Investigations</b>	Students develop the skills of scientific research through engagement in a variety of structured, plan-your-own, and data-analysis investigations.
<b>Science Skills Toolkit</b>	Provides guidance and support in individual skills of inquiry and research.

## LITERACY SKILLS DEVELOPMENT

<b>Activities</b>	Select activities provide focused instruction in individual literacy skills and strategies by integrating their use as a tool students use while they explore a question or problem.
<b>Literacy Skills Toolkit</b>	Support tools for developing effective reading and communication skills.

## MATH SKILLS DEVELOPMENT

<b>Activities</b>	Select activities provide focused instruction in specific math skills as students explore a question or problem.
<b>Math Skills Toolkit</b>	Provides support and tools for the specific math skills needed to effectively learn the science content and skills in the resource.

## LEARNER-FOCUSED PRESENTATION

<b>Unit at a Glance</b>	A graphic organizer highlights the focus for each unit, its relationship to each topic question, and the key concepts relevant to the specific topic. The graphic organizer provides a convenient reference for students as they organize their learning into a coherent whole.
<b>Topic Organization</b>	Each unit is organized into 5 - 7 topics. Each topic presents a key question related to the <i>Big Ideas</i> for that unit. Each section within the topic fosters conceptual development through a mix of compelling narrative, instructional visuals, and hands-on or minds-on activities.
<b>Compelling, Easy-to-read Narrative</b>	Developed through an STSE lens, concepts are developed in short paragraphs related to issues of interest and concern to students.
<b>Active Learning</b>	A variety of hands-on or minds-on activities allows students to work either individually, with a partner or in small groups.
<b>Instructional Visuals</b>	Unit visuals are purposefully designed to serve as a powerful instructional tools to support differentiated instruction.
<b>Key Term Treatment</b>	Key terms are highlighted, bolded, and defined in context, in the margin, and in an illustrated glossary.
<b>Science at Work</b>	Each unit highlights a variety of interesting career opportunities appropriate for the range of students in the class. Students are prompted to research essential skills for a career of personal interest.

## ASSESSMENT

<b>Get Ready</b>	A diagnostic tool at the beginning of each unit provides an assessment of students' prior knowledge and facility with a range of literacy, numeracy, and inquiry skills.
<b>Learning Checks</b>	Frequently placed <i>Learning Checks</i> provide an opportunity for students to check their understanding as they work through the topics.
<b>Topic Reviews</b>	Each topic ends with a question that asks students to organize their learning using a graphic organizer plus a full page of questions correlated to the <i>Achievement Chart</i> categories.
<b>Unit Reviews</b>	Comprehensive review featuring connections to <i>Big Ideas</i> , questions correlated to the <i>Achievement Chart</i> , and a full page of <i>Literacy Test Prep</i> questions modelled on those students will encounter in the OSSLT.
<b>Unit Projects</b>	Each unit provides a choice of two unit projects—one investigative and one research-based—that allow students to apply their new knowledge and skills in investigating and analyzing environmental issues related to the unit.

## DIFFERENTIATED LEARNING

<b>Instructional Strategies</b>	The careful orchestration of narrative, instructional visuals, and active learning ensure that students experience concepts developed in multiple ways to accommodate different learning styles and needs.
<b>Activities</b>	<i>Activities</i> provide instruction in inquiry, research, literacy, and math skills to ensure students develop both the skills and the knowledge important to them as science learners.

## EMPOWERING ACTIVISM

<b>Making a Difference</b>	<i>Making a Difference</i> feature highlights viable and influential student contributions.
<b>Unit Projects</b>	Investigating and analyzing issues provides opportunities for deeper research and response to environmental issues important to young learners.