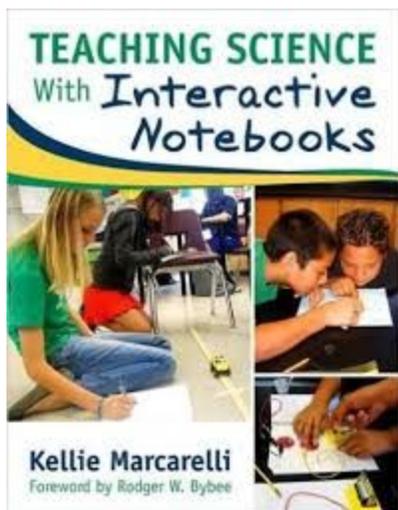


Perfect Pairs: Using Fiction & Nonfiction Picture Books to Teach Life Science, K-2

Copies: 15

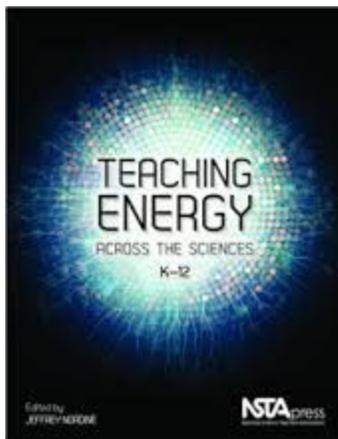
Perfect Pairs, which marries fiction and nonfiction picture books focused on life science, helps educators think about and teach life science in a whole new way. Each of the twenty-two lessons in this book is built around a pair of books that introduces a critical life science concept and guides students through an inquiry-based investigative process to explore that idea from animal/environment interactions to the role of structure in plant and animal survival, from inheritance of traits to variation of species.



Teaching Science With Interactive Notebooks

Copies: 31

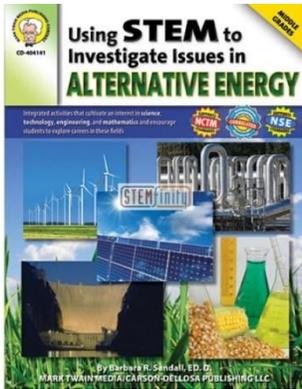
Increase student learning in the inquiry-based science classroom! Interactive notebooks allow students to record observations, reflect on learning, and self-assess their work. Packed with student examples, this detailed guide explains the unique features that make interactive notebooks more effective tools than conventional notebooks for science classrooms. This resource: Describes the nuts and bolts of implementing interactive notebooks, including execution, time management, and grading; Uses the 5E Learning Cycle as the framework for science instruction; Emphasizes the importance of writing in science and provides strategies for modeling effective writing; and explores strategies to encourage collaborative student inquiry and foster whole-class discussions.



Teaching Energy Across the Sciences K-12

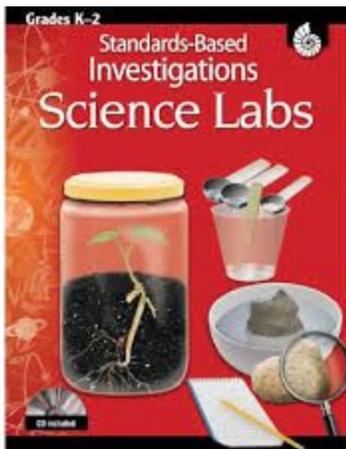
Copies: 31

Teaching Energy Across the Sciences, K 12 is accessible to teachers with varying science backgrounds. Its three main sections cover these essential topics: 1. Understanding why energy is such an important concept, what students need to know about it, and how to address the concept with the *Next Generation Science Standards* in mind. 2. Using five central ideas about energy to teach the subject consistently across the life, physical, and Earth and space sciences, as well as in all grades. 3. Providing the professional development and systemic support teachers need to adopt this book's approaches



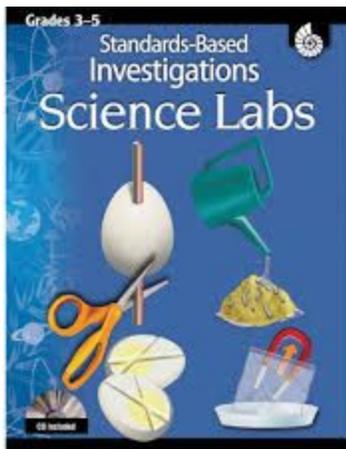
Using STEM To Investigate Issues In Alternative Energy **Copies: 2**

The STEMs of Learning: Science, Technology, Engineering, and Mathematics is an initiative designed to get students interested in these career fields. By using science inquiry and integrated activities, students will solve real-world problems and be encouraged to explore careers in the alternative energy fields. Meets NSE, NCTM, and ITEA standards, and is correlated to state, national, and Canadian provincial standards. 128 pages



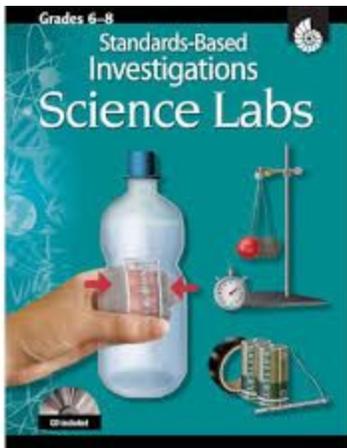
Standards-Based Investigations Science Labs K-2 **Copies: 7**

Inspire your curious scientists with interactive lab experiments and self-contained activities to improve critical-thinking skills and conceptual knowledge. Standards-Based Investigations: Science Labs teaches your grades K–2 learners through the inquiry process, where they record acquired knowledge in their observation notebooks to analyze their steps, processes, and results through writing and drawing. This resource supports core concepts of STEM instruction and builds college and career readiness skills.



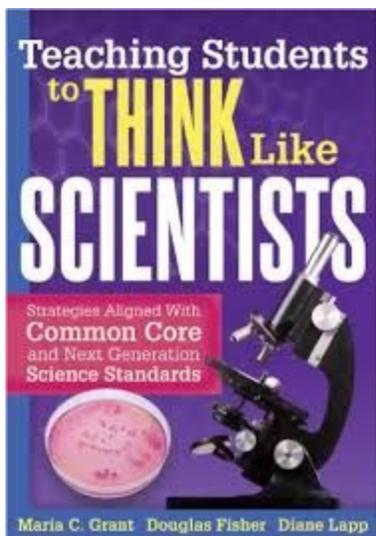
Standards-Based Investigations Science Lab Grades 3-5 **Copies: 7**

Help students create scientific hypotheses and record jaw-dropping results with these interactive activities designed to develop their critical thinking and conceptual knowledge. Standards-Based Investigations: Science Labs provides high-interest content suitable for students in grades 3–5 with lab experiments using the inquiry process. Gaining scientific knowledge through writing and drawing in observation notebooks, students will record and analyze steps, processes, and results. This resource supports core concepts of STEM instruction and builds college and career readiness skills.



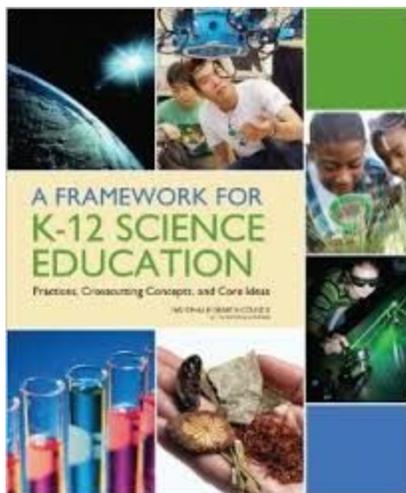
Standards-Based Investigations Science Labs Grades 6-8
Copies: 6

Promote scientific learning and encourage students to become actively engaged scientists with exciting lab investigations, focusing on processes and results. Supporting core concepts of STEM instruction and improving conceptual knowledge that is necessary for college and career, students in grades 6-8 will delve into the inquiry process and scientific analysis. Students also record and analyze steps, processes, and results through writing and drawing in observation notebooks.



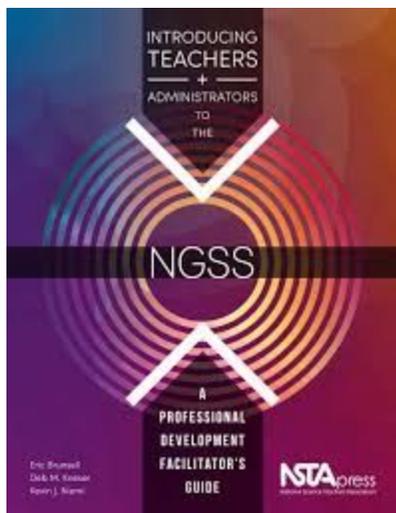
Teaching Students to Think Like Scientists
Copies: 35

It is essential that students learn to examine, review, and evaluate knowledge and ideas through a process of scientific investigation and argumentation. Using these instructional methods and lesson scenarios, teachers of all disciplines will gain the tools needed to offer students a richer, lasting understanding of science, its concepts, and its place in their lives and the global community. **Benefits:** Motivate students to become engaged, curious participants in science; Understand and align science instruction with the Common Core State Standards for English language arts/literacy and the Next Generation Science Standards; Equip students with the tools to read, analyze, evaluate, and respond to scientific issues; And prepare students to engage in argumentation, develop claims based on evidence founded in research, and participate in debate and discussion of scientific ideas.



A Framework for K-12 Science Education
Copies: 10

A Framework for K-12 Science Education outlines a broad set of expectations for students in science and engineering in grades K-12. These expectations will inform the development of new standards for K-12 science education and, subsequently, revisions to curriculum, instruction, assessment, and professional development for educators. This book identifies three dimensions that convey the core ideas and practices around which science and engineering education in these grades should be built. These three dimensions are: crosscutting concepts that unify the study of science through their common application across science and engineering; scientific and engineering practices; and disciplinary core ideas in the physical sciences, life sciences, and earth and space sciences and for engineering, technology, and the applications of science. The overarching goal is for all high school graduates to have sufficient knowledge of science and engineering to engage in public discussions on science-related issues, be careful consumers of scientific and technical information, and enter the careers of their choice.



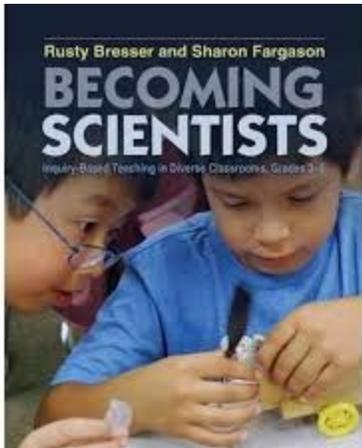
Introducing Teachers & Administrators to the NGSS: A Professional Development Facilitator's Guide
Copies: 3

If you are charged with helping educators achieve the vision of the new science standards, this is the professional development resource you need. This book is chock-full of activities and useful advice for guiding teachers and administrators as they put the standards into practice in the classroom. Written by three experts in professional development for science teachers, *Introducing Teachers and Administrators to the NGSS* introduces the vocabulary, structure, and conceptual shifts of the NGSS. It explores the three dimensions of the Framework: science and engineering practices, crosscutting concepts, and disciplinary core ideas, and how they are integrated in the NGSS. It provides classroom case studies of instructional approaches for students challenged by traditional science teaching. It covers curricular decisions involving course mapping, designing essential questions and performance assessments, and using the NGSS to plan units of instruction. It examines the connections between the NGSS and the Common Core State Standards. It offers advice for getting past common professional development sticking points and finding further resources. Given the widespread changes in today's education landscape, teachers and administrators may feel overwhelmed by the prospect of putting the new standards into practice. If you are a science specialist, curriculum coordinator, or instructional coach who provides professional development, you will find this collection immensely helpful for heading off initiative fatigue, whether in an individual school or throughout a district.



Next Generation Science Standards. For States, By States (2 Book Set)
Copies: 10

For ease of use, the NGSS have been packaged as a two-volume set. The first (400 pages) includes the standards themselves—with a handy spiral binding—while the second (200 pages) contains the appendixes in paperback form.



Becoming Scientists: Inquiry-Based Teaching in Diverse Classrooms, Grades 3-5

Copies: 14

Good science starts with a question, perhaps from the teacher at the start of a science unit or from the children as they wonder what makes a toy car move, how food decomposes, or why leaves change color. Using inquiry science, children discover answers to their questions in the same way that scientists do they design experiments, make predictions, observe and describe, offer and test explanations, and share their conjectures with others. In essence, they construct their own understanding of how the world works through experimentation, reflection, and discussion. Look into real classrooms where teachers practice inquiry science and engage students in the science and engineering practices outlined in the Next Generation Science Standards. Rusty Bresser and Sharon Fargason show teachers how to do the following:

- build on students' varied experiences, background knowledge, and readiness;
- Respond to the needs of students with varying levels of English language proficiency;
- Manage a diverse classroom during inquiry science exploration;
- Facilitate science discussions;
- And deepen their own science content knowledge.