

Each day, new headlines highlight the growing achievement gap between American and foreign students in Science, Technology, Engineering and Mathematics (**STEM**) subjects. That's why policy makers—concerned about our nation's competitiveness—worry about leaks in America's **STEM** pipeline: the flow of students who excel in these subjects and go on to pursue careers in these areas.

But the challenge for students is more immediate—and not just for those who hope to succeed in the growing number of **STEM**-focused middle schools and high schools (the pipeline)—but for all students (the mainline): how will they acquire the knowledge and critical thinking skills to meet the rapidly accelerating demands of today's schools?



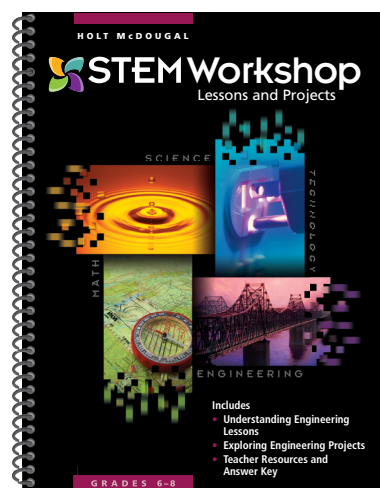
## STEM solutions

the catalyst for creative problem solving


More than simply the sum of Science, Technology, Engineering, and Mathematics, **STEM** is an integrated approach to learning that spans grades 6–8 and beyond.

### What is **STEM**?

Quality **STEM** education not only equips students with the vital knowledge necessary to succeed in our technology-driven world, but also promotes 21st century skills, such as creativity and collaboration through inquiry-driven challenges. **STEM** focuses on real-world problem solving and includes career connections that emphasize real-world applications and encourage diversity.



### STEM Solutions

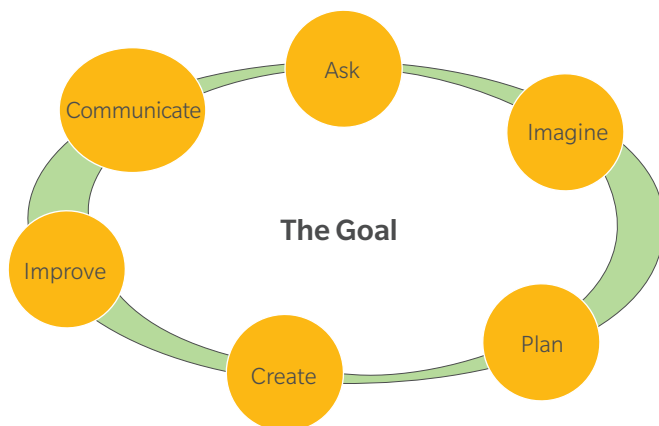
**Houghton Mifflin Harcourt** meets the challenge with comprehensive solutions that address the needs of both the pipeline and the mainline—with standalone **STEM** units and solutions integrated into its already outstanding science offerings. These units within our mathematics and science programs are highlighted throughout this catalog—look for the  indicating **STEM**-friendly programs. On page 430 individual **STEM** offerings are featured, as well as teacher professional development opportunities.

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[hnhco.com/stem](http://hnhco.com/stem)



## Engineering Design Process



**Endeavor Online STEM Certificate Program** builds **STEM** leadership and teacher capacity in your district with 100% online teacher professional development. Graduates receive a **STEM** education certificate endorsed by NASA and Teachers College, Columbia University. Available in credit (15 graduate credits) and non-credit programs.

For more information visit [hnhco.com/stem](http://hnhco.com/stem)

## STEM Workshop

Give your students a head start in **STEM** literacy with the **STEM Workshop**. Each unit teaches the fundamentals of the Engineering Design Process (EDP) and offers inquiry-based approaches to address age-appropriate design challenges. In addition, the middle school units feature Video-Based Projects (VBPs). Shot on location and featuring real-world **STEM** scenarios—such as the use of cutting-edge medical technology at Boston’s renowned Children’s Hospital—VBPs offer students the opportunity to use their scientific knowledge and mathematics skills to solve real-world issues. **STEM Workshop** also includes technology projects that teach the EDP and feature real-world applications.



# STEM Solutions

## Science

Students are asked to put their fundamental scientific knowledge to the test—reinforcing key concepts and strengthening vital critical thinking skills for future success.

## Technology

Students are challenged to solve real-world problems using mathematical and scientific knowledge—an activity central to all technology—from the most basic to the most advanced.

## Engineering

Students are given the opportunity to master the Engineering Design Process (EDP), which parallels the scientific process, and is the key to solving any engineering challenge.

## Mathematics

Students are required to master the basic tool essential to all scientific, technological, and engineering endeavors: mathematics, the glue that holds **STEM** together.

### price list

#### STEM Workshop Middle School (Grades 6–8)

Product	ISBN	Price
Print bundle (2-volume teacher’s edition with reproducible student pages + DVD)	978-0-547-85978-1	299.20
Online bundle (online access to teacher’s edition, reproducible student pages, and video)	978-0-547-85974-3	249.60

Ask students to solve real-world problems using the EDP. Choose either the print or online version. Both include the same great content.