

# STEAM

In a STEAM artroom, every project starts with art and connects one or more STEM disciplines as they naturally apply. A STEAM approach is engaging to students, encourages creativity and innovation, seamlessly connects disciplines, and provides meaningful opportunities for collaboration.

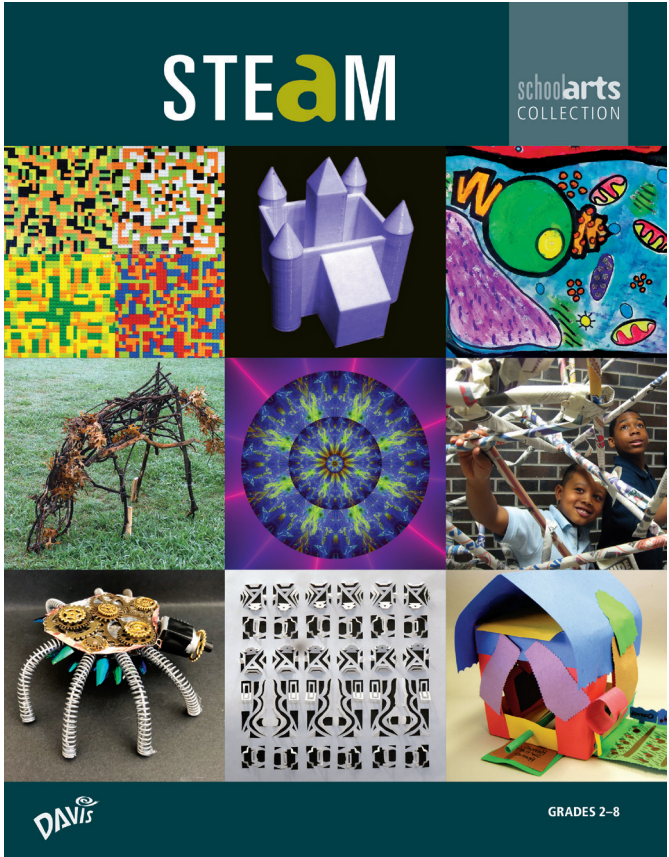
In this book, *SchoolArts* editor Nancy Walkup and the editorial team from Davis compiled articles written by educators specializing in STEAM. Discover lessons built to create opportunities for elementary and middle-school students to engage in experiences that will develop twenty-first century skills.

STEAM offers insight, suggestions for free resources, and engaging lessons with excellent student examples. Discover engaging new lesson ideas such as:

- building modular structures
- creating and using a pinhole camera
- experimenting with surface tension
- combining radial symmetry and color theory


Whether you are a STEAM veteran or a newbie, this book will give you a wealth of exciting connections.

For more information, visit [DavisArt.com/STEAM](http://DavisArt.com/STEAM).



### THE WORLD OF FRACTALS

CONNECTING MATH, SCIENCE, AND DIGITAL ART



**Michelle Hopton**

Did you know fractals are everywhere? Fractals are an engaging way to explore math, science, and art. When a shape is repeated over and over, it creates a fractal. Fractals can be seen all around us, from the branching patterns of a tree to the intricate patterns of a snowflake.

**Math in the Real World**

Fractals are used in many fields, including computer graphics, medicine, and architecture. Fractals are also used in art to create beautiful, intricate designs.

**Materials and Resources**

- Paper
- Scissors
- Glue
- Colored paper
- Ruler

**NATIONAL MEDIA ARTS STANDARDS**

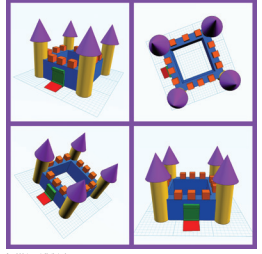
Producing digital art using a variety of software and hardware tools, including digital cameras, scanners, and software applications, such as word processing, drawing, and image editing, to create digital art products.

**INTERNATIONAL SOCIETY FOR TECHNOLOGY IN EDUCATION (ISTE) STANDARD**

1.1.1: Students create digital art using a variety of software and hardware tools, including digital cameras, scanners, and software applications, such as word processing, drawing, and image editing, to create digital art products.

### 3D PRINTING IN THE ART ROOM

HOW TO GET STARTED WITH 3D PRINTING



**Michelle Hopton**

3D printing is a technology that allows you to create three-dimensional objects from a digital file. It's a great way to bring your art projects to life.

**Math in the Real World**

3D printing is used in many fields, including engineering, medicine, and architecture. It's also used in art to create beautiful, intricate designs.

**Materials and Resources**

- 3D printer
- Filament
- Design software

**NATIONAL MEDIA ARTS STANDARDS**

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# Get Published in schoolarts magazine



*"One of the best things I ever did for my career was to get published seven times by SchoolArts magazine. I always gave a copy to my principal and superintendent, and I presented a workshop on writing for SchoolArts at Pennsylvania Art Education Association conferences."*

—Retired Middle/High School Art Educator

Dear Art Educator,

There is no better way to advocate for art education than by sharing your ideas and experiences. Having your work published in America's longest-running art education magazine will make your fellow teachers, administrators, parents, students, and school community take notice.

**Wondering what to write about?** *SchoolArts* publishes a wide variety of articles—studio lessons for all levels, K–12; advocacy; classroom management; innovative responses to everyday challenges art teachers face; differentiated instruction; and more.

**Just think about your successes in the artroom and start writing!**

—Nancy Walkup, Editor-in-Chief

**P.S.** Published articles make valuable additions to your portfolio, employment applications, and grant applications.

#### **Author Benefits include:**

- honorarium of up to \$100 per article.
- free one-year print and digital subscription to *SchoolArts*.
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- two years of access to Davis Digital, which includes a fine art image subscription with more than 35,000 images, your choice of one eBook, and access to Portfolios and the Curriculum Builder.

For Writer's Guidelines, go to [SchoolArts.com/WritersGuidelines](https://SchoolArts.com/WritersGuidelines).

To submit your article, go to [SchoolArts.com/Submission](https://SchoolArts.com/Submission).

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