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MakerBot Strengthens 3D Printing in Classrooms with Advanced Resources for Educators

The all-new MakerBot Educators Guidebook expands on its popular predecessor with advanced project plans, design ideas and inspirations, tips and tricks, and more

Comprehensive guidebook helps educators and students take learning to the next level with 3D printing

BROOKLYN, N.Y.--(BUSINESS WIRE)-- MakerBot, a Stratasys company (Nasdaq: SSYS), today announced the newest edition of the widely-popular *MakerBot Educators Guidebook*, a free and comprehensive resource complete with new projects plans, design inspiration and ideas, best practices, industry examples, and more. The *MakerBot Educators Guidebook* aims to inspire educators with ideas to enrich their curriculum, enhance student learning, and redefine what 3D printing in education looks like.

This press release features multimedia. View the full release here:
https://www.businesswire.com/news/home/20210420005480/en/

MakerBot Educators Guidebook, the definitive guide to 3D printing in the classroom (Photo: Business Wire)

"Since 2009, MakerBot has been a leader in bridging the gap between classroom learning and 3D printing. Over the past twelve years, we've worked closely with educators around the world who have realized 3D printing's potential to demonstrate ideas and principles in a new light and engage with students on a whole new level," said Nadav Goshen, CEO, MakerBot.

"Integrating 3D printing into schools is no longer a

question of why, but of how. During our [3D Printing in Education Summit](#), we heard directly from students and teachers who shared stories on how the technology impacted their education and the importance of expanding access to it across different grade levels," Goshen continued. "We believe that equipping students with tools and resources will better prepare them for the future and help drive success along the way."

There are endless possibilities with using 3D printing to support learning objectives. Its versatility—from creating manipulatives and teaching models to boosting project-based learning methods—has propelled its use in schools. The ability for students to physically visualize and experiment with their ideas has changed how subjects are taught in schools. 3D printing can be used in numerous ways to reinforce core learning objectives across several subject areas, from exploring clear STEM applications in engineering and physics, to understanding mathematical theorems, to blending cross-curricular projects involving history, music, foreign languages, and more. As a result, students develop critical thinking, problem-solving, and communications skills that will be instrumental to them outside of the classroom.

"There are so many ways that 3D printing can enhance the curriculum and help students engage in authentic learning," said Beverly Owens, Guidebook co-author and 11th Grade Chemistry Teacher at Cleveland Early College High School. "I introduced my students to different aspects and applications of 3D printing, and allowed them the opportunity to print out their own designs. Providing tiered support and guidance for students has transformed my classroom into an environment in which students can iterate on designs and solve problems using technology."

Some of the book's project examples include creating a "cell city" to learn how organelles function within a cell, designing a planetary gear system to study the different components, studying the mechanics of hand movement with robotic hands, and visualizing trilobites to better understand the organisms.

Owens added, "I want to be able to show my students that no matter the level at which you're 3D printing, you can still learn and grow—you just need a little bit of confidence and practice. Going through the MakerBot Certification™ to become a MakerBot Operator and Curriculum Creator really solidified my confidence to help me see what I can do. With 3D printing, my students are only limited by the breadth of their imagination."

While previous MakerBot handbooks provided a primer on 3D printing, 3D design, and introducing 3D printing into the classroom, the third and latest edition of the *MakerBot Educators Guidebook* features more advanced project plans, design ideas, professional applications, and additional step-by-step instructions to help teachers get the most out of 3D printing with their students. Also included are instructions to familiarize users with the newest MakerBot 3D printers—the MakerBot METHOD® and MakerBot SKETCH®.

The new *MakerBot Educators Guidebook* can be used as a complementary resource to the first two books, *MakerBot in the Classroom* and the original *MakerBot Educators Guidebook*. Key chapters in the new guidebook include:

- **The Ins and Outs of 3D Printing in the Classroom:** Learn how to apply 3D printing in the classroom, adapt the curriculum to hybrid or remote settings, and integrate design thinking as part of the learning cycle.

- **The X, Y, Zs of 3D Printing:** Learn the overall process of transforming a digital concept into a physical product, from start to finish.
- **Get to Know Your MakerBot Printer:** Dive into the main functionalities of MakerBot's METHOD and SKETCH 3D printers, and learn how to best use MakerBot CloudPrint™ to slice, manage, and print projects.
- **Curriculum Project Ideas:** Find carefully curated projects and design inspirations spanning Natural Sciences, Engineering, Robotics, Mathematics, and Art, History, and Music.
- **Teachers' Tricks of the Trade:** Discover different tips and tricks that other educators have learned in their 3D printing journey.
- **3D Printing Beyond the Classroom:** See how 3D printing is impacting industries today and how these applications can be applied in the classroom.

MakerBot continues to stand at the forefront of 3D printing in education, with a mission to create the next generation of designers, engineers, and innovators. The company offers a fully-connected 3D printing ecosystem of hardware, software, and resources, including METHOD and SKETCH 3D printers, the comprehensive 2021 Grant Guide, hundreds of lesson plans and millions of printable design ideas and inspiration from Thingiverse, an engaged community of educators, MakerBot Certification Programs—the only ISTE-certified 3D printing training for educators and students, and MakerBot CloudPrint integration with Google Classroom for a streamlined 3D printing workflow.

Some of these projects, and more, can be found on Thingiverse at http://thingiverse.com/education.

For more information, visit makerbot.com/guidebook.

About MakerBot

MakerBot, a Stratasys company, is a global leader in the 3D printing industry. The company helps create the innovators of today and the businesses and learning institutions of the future. Founded in 2009 in Brooklyn, NY, MakerBot strives to redefine the standards for 3D printing for reliability, accessibility, precision, and ease-of-use. Through this dedication, MakerBot has one of the largest install bases in the industry and also runs Thingiverse, the largest 3D printing community in the world.

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