

DREMEL[®] Dreams
Where digital technology meets the classroom.

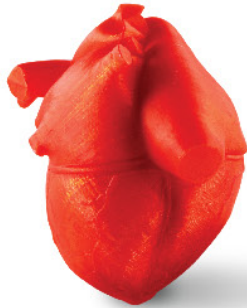


"Integrating the Dremel Idea Builder into our K-12 curriculum has increased student engagement, fostered student creativity, and helped student understanding of core subject concepts that are sometimes lost in translation during lecture."

– Mark Simmons, Director of Technology, Sabine Pass ISD

DREMEL® Dreams

Dremel Dreams is an educational program which introduces digital technology into the classroom. It allows students and teachers to...



- D**esign materials
- R**esearch new ideas
- E**nhance curriculum
- A**ctivate their imaginations
- M**otivate each other in order to
- S**hape a better future

Explore. Build. Learn.

The best technology-based tools in the classroom today are the ones that are highly interactive. Digital whiteboards, computers and tablets all allow students to explore, create and ultimately develop and exercise problem-solving skills. Those are the same characteristics that make the Dremel 3D Idea Builder such an exciting technology for the classroom.



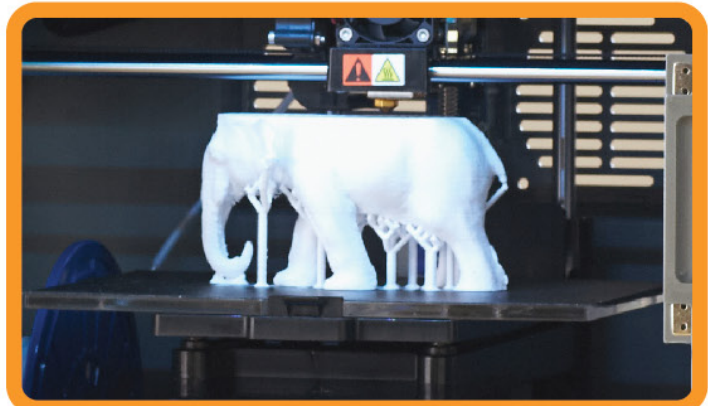
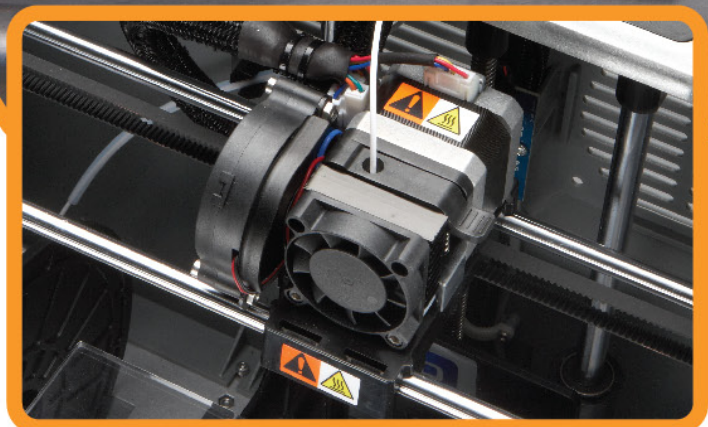
With its specially designed curriculum, the Dremel Dreams program fosters an entirely new learning experience. Students can now be empowered to design, model, and build in ways never before possible. It gives them the unique ability to learn through invention with actual hands-on activities. They engage and retain the subject matter even more when they connect a physical model with an abstract concept. It's the epitome of teaching with technology.

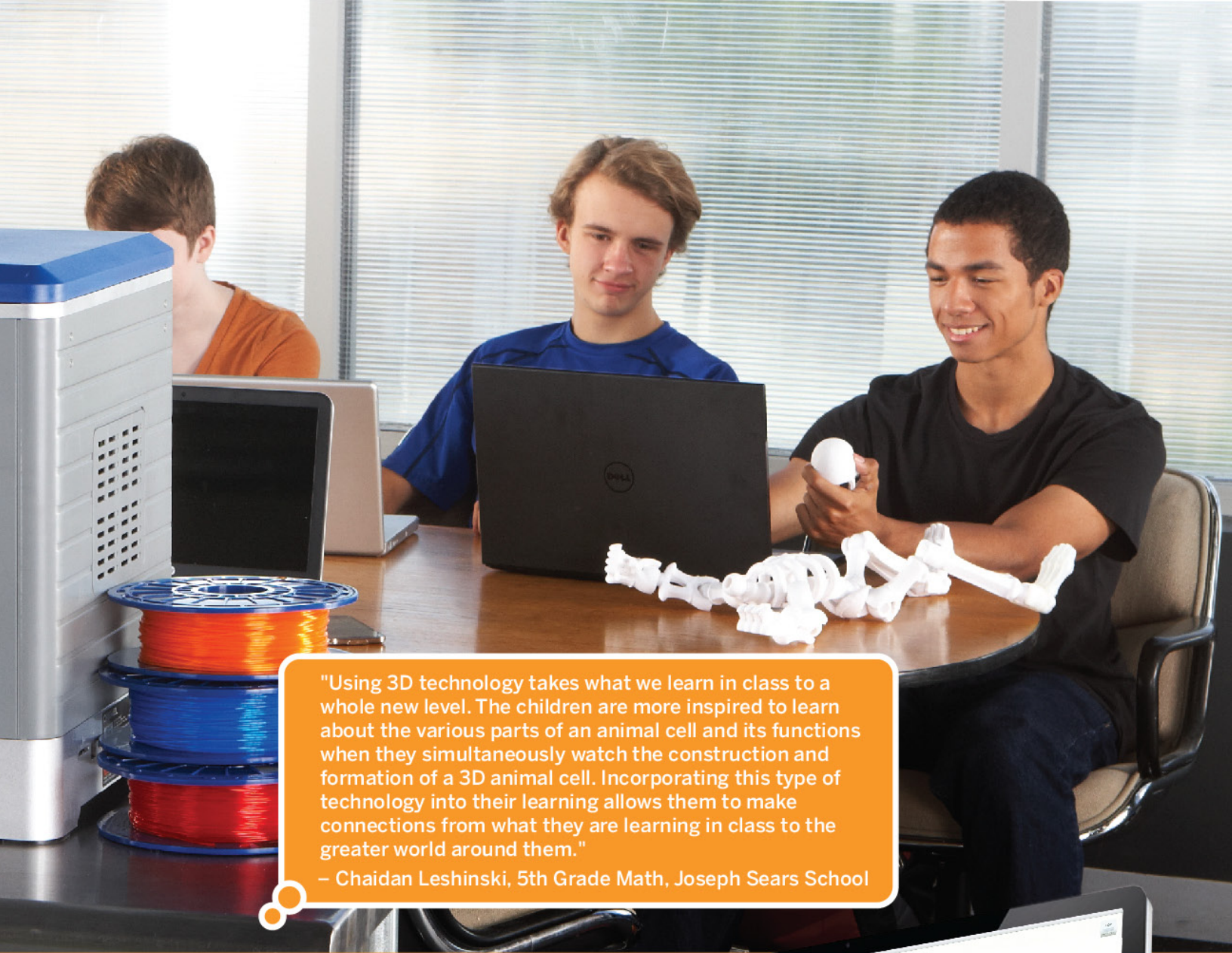


What is 3D Printing?

The earliest 3D printing technologies became visible in the late 1980's and have since come a long way. 3D printing is commonly referred to as "additive manufacturing", where an object is created by laying down successive layers of material until complete. Think of each layer as a thinly sliced cross-section of the final object.

The Dremel Idea Builder utilizes a specific technology called Fused Filament Fabrication. In this process, the printhead or "extruder" heats or "melts" a spool-fed filament so that it can be easily laid down. This heated filament then quickly cools and hardens so that the next layer can be applied.





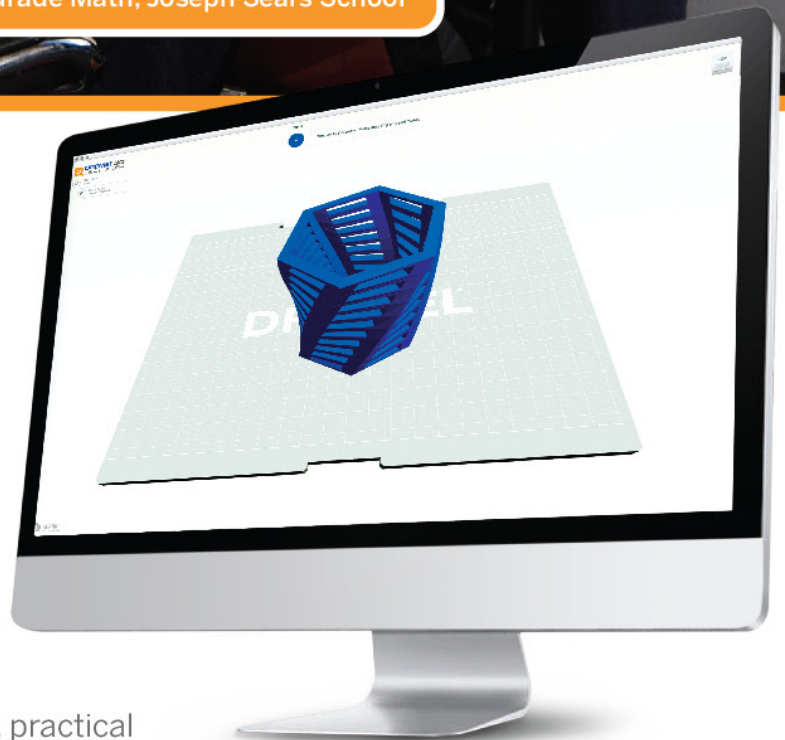
"Using 3D technology takes what we learn in class to a whole new level. The children are more inspired to learn about the various parts of an animal cell and its functions when they simultaneously watch the construction and formation of a 3D animal cell. Incorporating this type of technology into their learning allows them to make connections from what they are learning in class to the greater world around them."

– Chaidan Leshinski, 5th Grade Math, Joseph Sears School

3D Modeling Software

Before an object can be printed it must first be designed using a computer and a 3D modeling program. There are many available that make designing 3D objects easy and fun. The design file is then sent to the 3D printer where it forms the digital model into a real, tangible item you can hold.

3D printed models can be used for education, practical applications or simply enjoyed for entertainment purposes.



What are the benefits of 3D printers in the classroom?

Students have limitless potential. Combine their potential with 3D printing and you create a powerful learning environment. 3D printing empowers students to embrace innovative technology and allows them to achieve new levels of thinking, both creatively and pragmatically.

Imaginations will be sparked. Confidences will be built. It's a tool able to enrich problem-solving skills, patience, persistence and creativity.

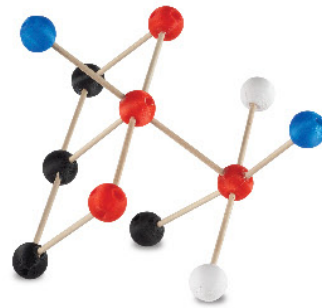


Teach by Showing

Demonstrate interconnected items through 3D printing. It breaks down larger, more complicated concepts into individual parts for easier comprehension.

Learn by Doing

Give students the chance to put their skill into use. From design thinking to assembling printed objects, students will fully engage the subject matter with this real 'hands-on' experience.



"The Dremel Idea Builder is truly a plug n' play tool that has made it easier to implement. I spend less time training teachers on how to use and more time on how to integrate."

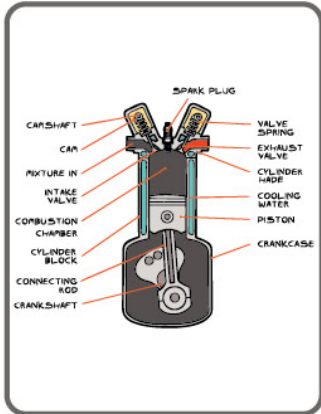
– Mark Simmons, Director of Technology, Sabine Pass ISD



DREMEL® Dreams

3D Printing is Changing the Way Students Learn...

Traditional

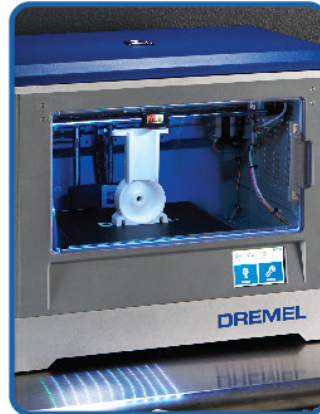


Show a Diagram

New 3D Teaching Method!



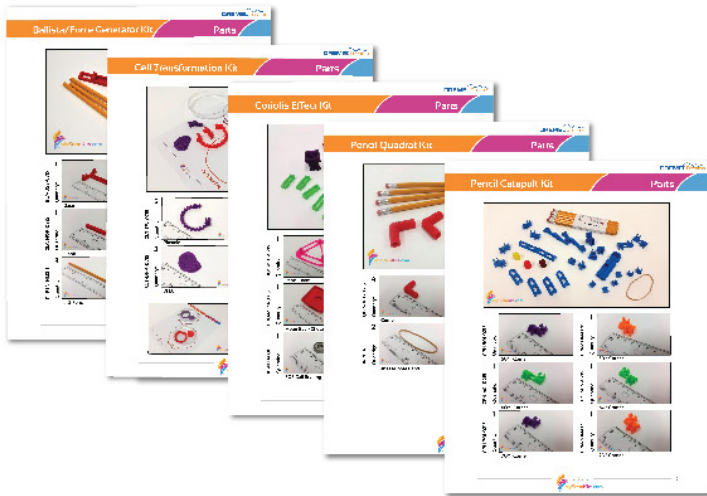
Design it!



Print it!



Use it!



Improves
the nature of education.

Creates
powerful learning environments in schools.

Empowers
students to embrace innovative technology.

Enhances
confidence and imagination.

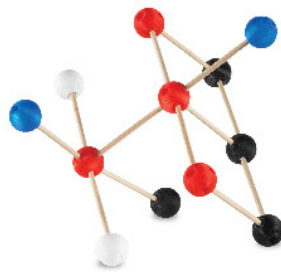
Encourages
students to learn from their mistakes.

Enriches
problem-solving skills, patience,
persistence, and creativity.



Science no longer has to be diagrams and charts but rather tangible models of complex, modifiable concepts.

Science



3D technology can be used to build models and prototypes of mechanical, architectural and artistic designs to further practical understanding.

Technology



Engineering

From combustion engines to drones, students can design and engineer using hands-on trial and error learning.

S

T

M

E

+

Math

Math can now become an interactive subject in which students can integrate learnings and heighten their problem-solving skills.



Geography, Art, Design...all subjects can be transformed to challenge students to think differently and more critically.



Why DREMEL®

360 Degrees of Coverage

When you purchase a Dremel 3D Idea Builder, you are getting more than just a 3D printer with software and filament. You are also getting world-class 1:1 customer support, mentorship, Common Core curriculum and peace of mind with UL certification and the industry's best warranty.

World-Class Customer Support



**Webinar
Training
+ Program**

**Safety
First**



**Industry
Best Warranty**

**1
Year**



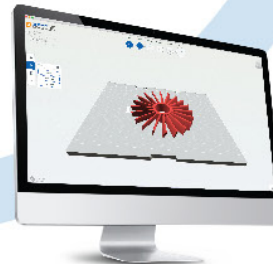
**3D Specific
Curriculum**



**PLA
Filament**



**Easy-to-Use
Software**



DREMEL 3D IDEA BUILDER

KEY FEATURES



Easy to Use

Fastest out-of-the box usability in the market and easy-to-use software. Build objects within minutes.

Safe

Dremel was the first manufacturer to receive UL certification for its 3D printer.

Dremel Reliability

Dremel, a trusted brand for over 80 years, has designed the 3D Idea Builder with simplicity at its core. Backed by a full 1-Year warranty, it's built to last.

Support

Dremel Experts provide world-class 1:1 support and mentorship. Call, Skype or Chat.



Why DREMEL®?

Easy-to-Use Software

Dremel 3D Software gives you the ability to change your object location, orientation and size on the build platform. Plus the build quality settings allows you to customize both the build quality and build time with temperature, infill and speed control.



LOAD



VIEW



MOVE



ROTATE



SCALE



BUILD

The easy-to-use toolbar icons let you load, build, view, move, rotate, scale your objects to make them fit your imagination.



Dremel PLA Filament

The Dremel Difference

Dremel PLA filament has been specifically engineered for optimal printing producing a stable, strong object with a high quality finish.

Recyclable/Renewable

Dremel PLA is Bosch certified to be both plant-based and recyclable.

Quality Tested

Dremel filament has been quality tested to ensure that it does not clog your 3D printer.

Classroom Friendly

PLA is safe to use in class or at home. Since it is plant-based, there are no toxic fumes to inhale.

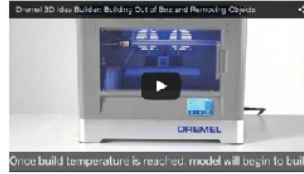


World-Class Customer Support and Training

Our dedicated team of 3D Experts, based in Racine, WI, provides world-class 1:1 product support, troubleshooting and mentorship.

- Call, Skype, Chat, or Email to get all of your questions or issues resolved – guaranteed.
- Hours - 8AM - 6PM CST - Monday-Friday.
- Fast turn-around for replacement parts.
- Consistently updated How-To Videos and FAQs.

Building out of the box and removing objects



Product Walk Around



Filament Installation and Guide Tube



Unclogging the Extruder Tip



How to Remove Imperfect Filament

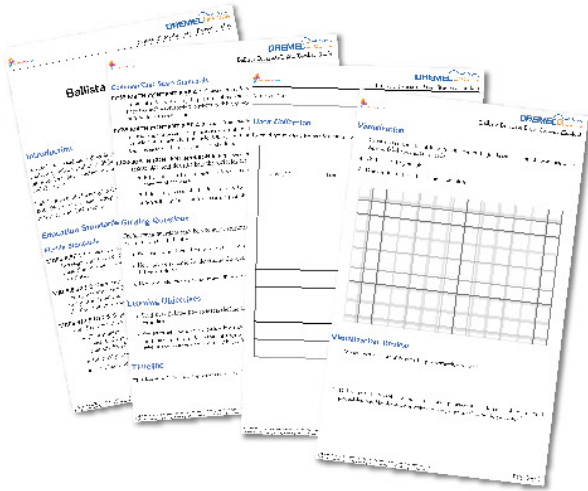


Updating Firmware and Software



Why DREMEL®?

DREMEL Dreams
Where digital technology meets the classroom.



3D Specific Curriculum

Written by actual teachers and subject matter experts, Dremel's 3D education curriculum is aligned with **Common Core** standards. These ready-to-use lesson plans will allow educators to get 3D printing integrated into classroom learning right out-of-the-box.

All of the specially designed curriculum and their corresponding 3D model kits come saved on the printer's SD card and can be saved to, and printed from, any computer.

COMMON CORE ALIGNED CURRICULUM



PENCIL CATAPULT KIT
Ready Aim Fire
(Physical Science 6-12)



LOADED DICE KIT
Roll Dice
(Math 6-8)



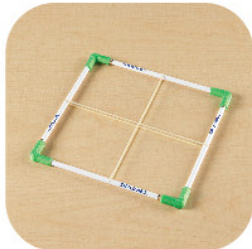
PYTHAGOREAN PROOF KIT
Pythagorean Proof Area
(Math 6-8)



BALLISTA/FORCE GENERATOR KIT
Bivariate Data
(Math 8-12)



PUNNETT SQUARE DICE (GG) KIT
Monohybrid Cross Simulation
(Life Science 6-8)



PENCIL QUADRAT KIT
Moth Selection Statistical/
Quadrat Samplings
(Life Science 6-8 / Math 6-8)



MOTH KIT
Moth Selection
(Life Science 6-8)



MEASURING PRECISION KIT
Ruler Rules
(Nature of Science/Math 9-12)



CORIOLIS EFFECT KIT
The Coriolis Effect
(Nature of Science 6-8)



DNA TRANSFORMATION KIT
Bioengineering
(Life Science 6-8)







DREMEL®

Albert J. Dremel was the inventive genius who, with an electric razor blade sharpener as his first product, founded the Dremel Company back in 1932. He then came up with perhaps his greatest invention ever in 1934: a high-speed rotary tool dubbed the Dremel Moto-Tool.

Today the Dremel product line has grown to expand upon its core of rotary tools, attachments and accessories to include other versatile tool systems including Multi-Max oscillating tools, Saw-Max and Ultra-Saw multipurpose saws, the Versa-Tip and Versa-Flame Butane tools and the newest addition, the Dremel Idea Builder 3D printer.



Questions?

Call, email or skype a Dremel Expert.
We offer guaranteed lifetime support of Dremel 3D.



Dremel3D.com

1-844-4DRML3D

8AM - 6PM CT, M-F

