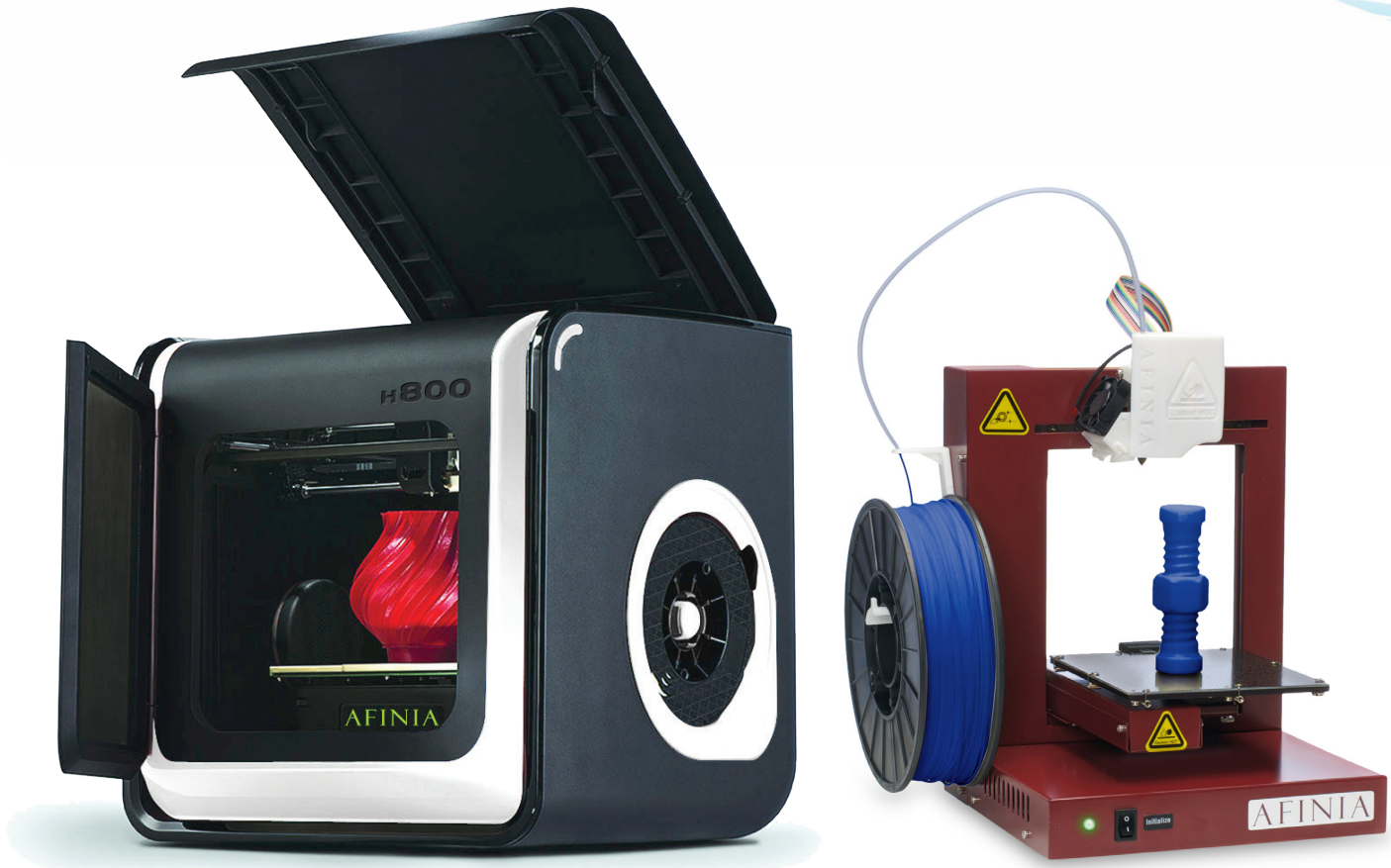


3D Printing



Innovative. Affordable. Ready to use. Afinia 3D printers are perfect for your classroom. Combine them with Intelitek's Intro to Design and 3D Printing courses for the ultimate STEM teaching solution.

Why introduce 3D printing into your classroom?



Whether it's creating tangible teaching aids, prototyping designs or replicating ancient artifacts, 3D printers have proven to be extremely successful at bridging the gap between the physical and digital worlds we live in. 3D printers not only bring students into contact with cutting-edge technology, but they also familiarize them with tools that will be commonplace tomorrow.

Some other reasons to introduce 3D printers into your classroom:

- Provides teachers with innovative and multidisciplinary teaching methods in which to enrich the curriculum of STEM subjects.
- Gives students the freedom to think creatively and without boundaries.
- Teaches students to overcome adversity and solve problems through the physical prototyping process.
- Helps inspire invention, design and engineering in the classroom.
- Offers students a different way to understand STEM subjects.
- Provides teachers with a different kind of “hook” to help engage students.
- More easily allows students to envision graphs and solve mathematical models.

The complete 3D printing solution

Intro to Design Curriculum

This course introduces students to the role of the industrial designer and the work they undertake. Students will learn to redesign simple office supply products, practice technical drawing techniques and are introduced to how products are made. Throughout the course students learn to SketchUp 3D design software to complete several projects.

Intro to 3D Printing Curriculum

The Intro to 3D Printing Curriculum is a flexible, hands-on course that serves as a complete introduction to 3D printers. The course is designed to introduce students to the theories and concepts of 3D printing, while also teaching them everything they need to know to begin printing 3D parts on their own.

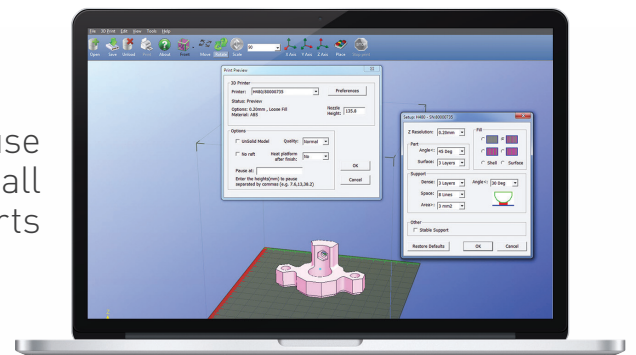


3D Printers

The Afinia H480 and H800 are both perfectly-suited for the academic environment, including middle and high school classrooms. Both printers are beginner-friendly, come fully-assembled and include everything necessary to begin printing parts out-of-the-box.

3D Printer Software

The Afinia 3D Printer software has an easy-to-use interface which allows beginner users to perform all the tasks necessary to begin printing their own 3D parts within minutes.

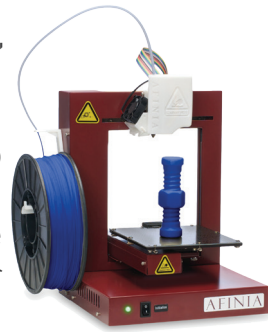


Two 3D Printers to Meet Your Classroom Needs

The Afinia H480 and H800 are both perfectly-suited for the academic environment, including middle and high school classrooms. Both printers are beginner-friendly, come fully-assembled and include everything necessary to begin printing parts out-of-the-box.

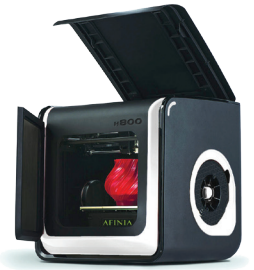
Afinia H480

The Afinia H480 is a fully-assembled, easy-to-use compact 3D printer, which uses extruded filament (both ABS and PLA) to print parts up to 5.5" x 5.5" x 5.3". It weighs less than 11 pounds and is an ideal choice as an introductory 3D printer for smaller projects.



Afinia H800

The Afinia H800 is a brand new, fully-enclosed printer which has a build volume up to 5 times larger than the H480 (10" x 8" x 8"). The H800 weighs approximately 55 pounds and has a footprint of 19.1" x 20.5" x 19.5", which makes it an ideal printer for larger projects



3D Printer Course Outline:

Introduction

- Revolutions in Technology
- What is 3D Printing?
- 3D Printing for Industry
- Methods of 3D Printing
- Anatomy of a 3D Printer
- How does FDM work
- Mesh Geometry & Resolution
- 3D Positioning System
- Sharing Revolutions
- 3D Printing Marketplaces

Software

- Intro to 3D Printing Software Afinia Software
- Opening STL Files
- Adjusting the View
- Transforming the Model
- Duplicating the Model
- Saving Your Work

Orientation

- Layer Thickness
- Orientation
- Scale

Support

- Overhanging Structures
- Identifying Support Needs
- Support Preview
- Specifying Support
- Support Angles
- Supporting Overhangs
- Avoidance Strategies

Fill

- Interior Fill
- Choosing Infill
- Shell Thickness Fill as Support
- Fill Printing in Afinia
- Surface Print

Modeling Approaches

- Creating 3D Content
- 3D Modeling
- 3D Sculpting
- 3D Scanning
- Parametric Design

Projects

- Wanted for Hire: 3D Print Technician
- Search and Print
- Design and Print

Ordering Information: Curriculum available perpetually via LearnMate™, or leased annually via OnlineLearning.intelitek.com

3DP-H480-CLASS	H480 Complete Classroom Solution
3DP-H800-CLASS	H800 Complete Classroom Solution
77-8157-0000-L	Intro to 3D Printing Course (OnlineLearning)
77-8157-0000	Intro to 3D Printing Course (LearnMate™)
77-8154-0001-L	Intro to Design Course (OnlineLearning)
77-8154-0001	Intro to Design Course (LearnMate™)

We also offer filament in various materials and colors, and replacement Afinia accessories and extended warranties

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