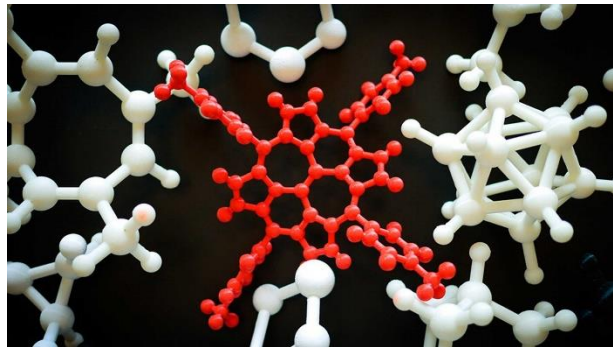


## 3D printing applications in school education

3D printing is intertwined with the science and technology curriculum (Physics, Technology, Engineering and Mathematics), but all other school subjects can also benefit from 3D printing technology. Some of the examples that have been observed are the following.

### Physics



3D printing can be used to print cell or organ models or to create any personalized model or equipment for Chemistry or Biology. Instead of dismembering a frog in the classroom, for example, students can now print in 3D and assemble an entire frog.

### Mathematics



Teachers can help engage students through the use of 3D models to 'bring to life' formulas and equations and explain mathematical principles rather than focusing

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solely on textbook exercises. Complex geometry, for example or trigonometric functions can be illustrated with 3D printed models to help students visualize mathematical problems much more realistically through tangible presentations

### Mechanical engineering



Instead of the established way of introducing future engineers to abstract theories and problems solved with mathematics, students can get the joy of designing objects through experience, first hand and the whole design of the object. This technology can be used to test and produce functional prototypes, demonstrating well-designed solutions.

### Arts



3D printing provides a new and authentic way of creating art. It has great potential for the creative industries and is used as a means itself. The various textures, complex geometries or molds that 3D printing can produce make it possible to create sculptures that would otherwise be unlikely to be produced through the traditional manufacturing process.

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## Geography/Geology



We live in a three-dimensional world so having the opportunity to see and touch a representation through 3D printing of the geography and geology we are teaching gives a new dimension to the teaching experience. 3D printing is a great way for students to better understand a variety of geological formations to such an extent that through two-dimensional images it is relatively difficult.

## History



In history lessons, students can print copies of exhibits found in museums, which can be touched, while being identical to the corresponding real exhibits.

It is possible to find more information about 3D printing, including applications, trends and its benefits for Education in the “3DP TEACHERS’ GUIDEBOOK”. Make sure you are following the “3DP TEACHER - implementation of 3D Printing in future education” project’s [Facebook page](#) to be the first to know when the guidebook is published on [project’s website](#).

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