3D Design & Printing in the Art Room

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Emphasize the relationship of 2D shapes to 3D forms

Why 3D Printing in Art?
Our 3D Printing Journey
Authentic opportunity to use the Design Process in the Visual Art Classroom

Why 3D Printing in Art?
From Fail to Fabulous
The Design Process

1. State the Problem
2. Generate Ideas
3. Select a Solution
4. Build the Item
5. Evaluate
6. Present Results
Create/Test/Revise/Test
Engage students in STEAM: Science, Technology, Engineering, Art, & Math in the Visual Art Classroom

Why 3D Printing in Art?
Castle STEAM Unit

The Castle STEAM unit begins with an exciting virtual tour of the Warwick Castle in England: [www.sphericalimages.com/warwickcastle](http://www.sphericalimages.com/warwickcastle) and continues with an initial activity to assess prior knowledge. From there, the architectural elements are explored and documented, sketches are made, a paper model is built, and finally the design is prepared for 3D printing.

This lesson may be extended to curriculum in ELA and History with the inclusion of the book *The Door in the Wall* by Marguerite De Angeli.

Formal and informal assessments are included throughout the unit in the form of a formative assessment, check-ins at various stages throughout, artist statements, and a final product.

This is the link to a BlendSpace collection of resources: [http://blnds.co/1yy9VkJO](http://blnds.co/1yy9VkJO)

**PROJECT DETAILS**

- **Guiding Principle:** Design and Engineering
- **Product:** 3D Printed Castle
- **Subjects:** Art, Engineering, Math
- **Grade:** 5/6

Design a castle for 3D printing that uses traditional architectural elements.

Download at [http://goo.gl/iPZmIO](http://goo.gl/iPZmIO)
Starting with Traditional Art Making
Then Designing on iPads
To 3D Printing
Our Castles
More Castles
More Castles
2015 Middle Level Award
Youth Art Month - Boston
Snow Figures Design on iPad
Snow Figures
Freshly printed
Snow Figures
Painted with Acrylic Paint and Mod Podge
New Focus: Animals
Penguin
With Acrylic Paint and Sparkle Mod Podge
Designed by a Fifth Grade Student
How to Design for 3D Printing – an overview
How to Design for 3D Printing using iPads
Budget 3D Printers

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