

Parabola Art Project**STEAM: Art**

ART adds creativity to STEM ideas which leads to innovation and discovery.

IDEA DESIGN CREATE INNOVATE

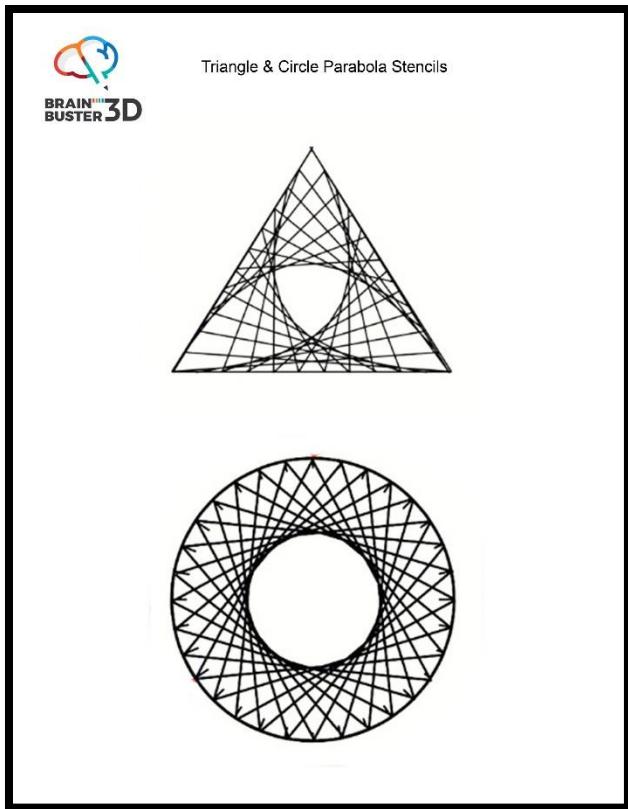
Creating triangle & circle parabola models will help you learn how to apply Art Skills to STEM. How?

- You will be using the stencil to create the design elements of the two types of parabola, a triangle, and a circle.
- You will need to select colors of filament that add interest to the design you will create and determine where you will apply the different colors.
- You will have the opportunity to design your own parabola.

Materials Needed: Parabola Stencil, 3D Pen, 2-3 colors of PLA filament, scissors, silicon thumb & finger protectors, a paper towel or napkin.

Make Your Own Parabola Stencil

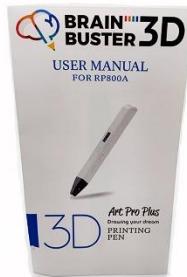
Optional: To keep your stencil intact, place it in a plastic sheet protector.



BRAIN BUSTER 3D Art Pro Plus Kit Contents



AC/DC Adapter & USB



3 Pack of PLA Filament



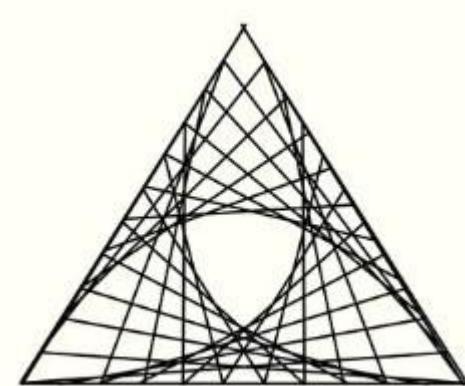
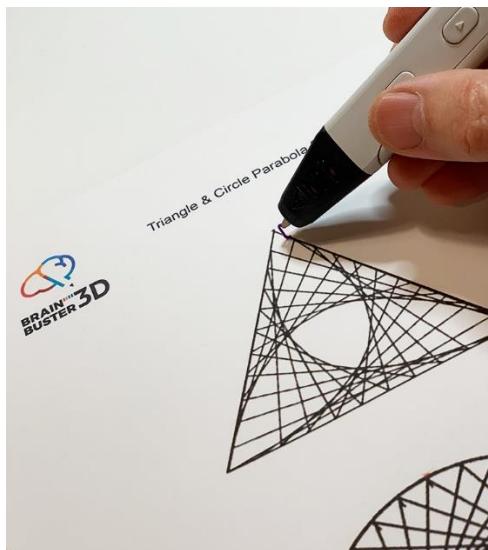
Thumb & Finger
Protectors



Art Pro Plus
3D Printing Pen



STEP ONE:



Find a starting point on the stencil to anchor your filament.

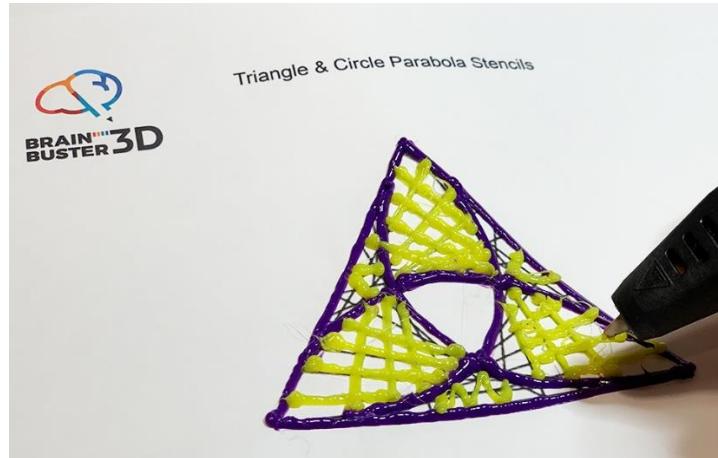
Move your 3D pen along the exterior or outside to outline the triangle.

STEP TWO:

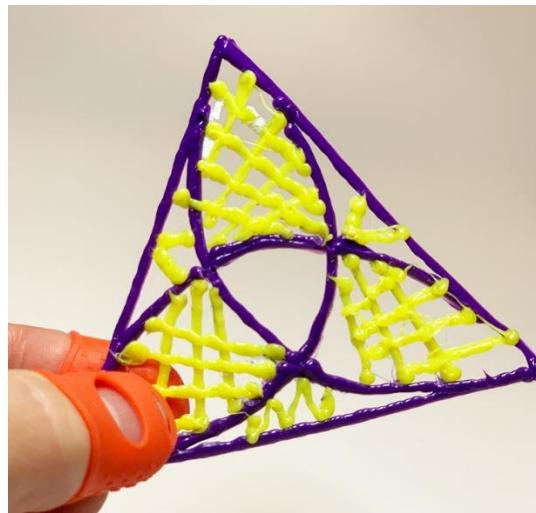


Outline the triquetra inside the Triangle.

STEP THREE:

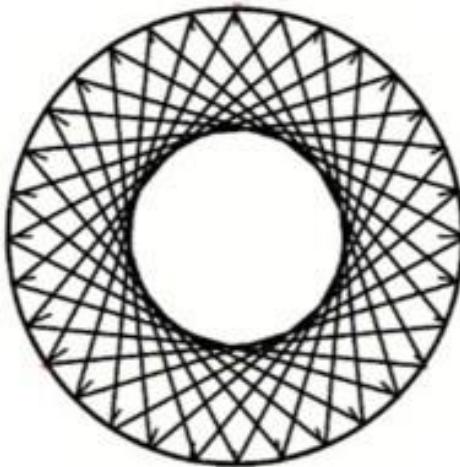


Trace the lines within each section of the triquetra to create an interesting design.

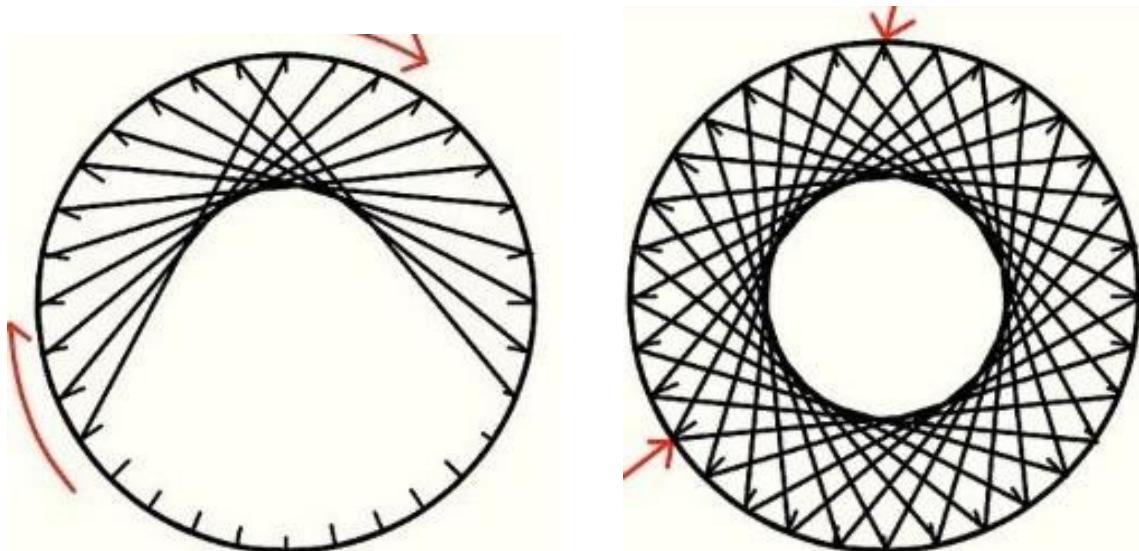


If you use a plastic sheet protector, the triangle parabola should peel off the stencil easily. If you made it by extruding the filament directly on the paper stencil, some of the paper will stick to the back. To remove the paper, rinse it with warm water and dry with a paper towel.

STEP FOUR:

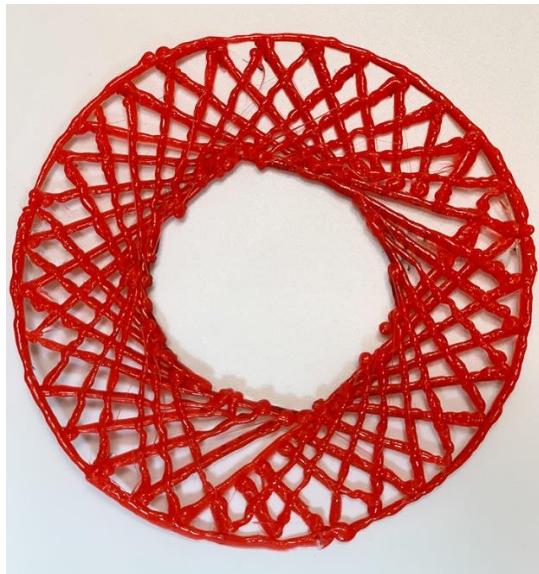


The circle parabola creates an optical illusion. The lines appear curved when they are in fact straight lines.

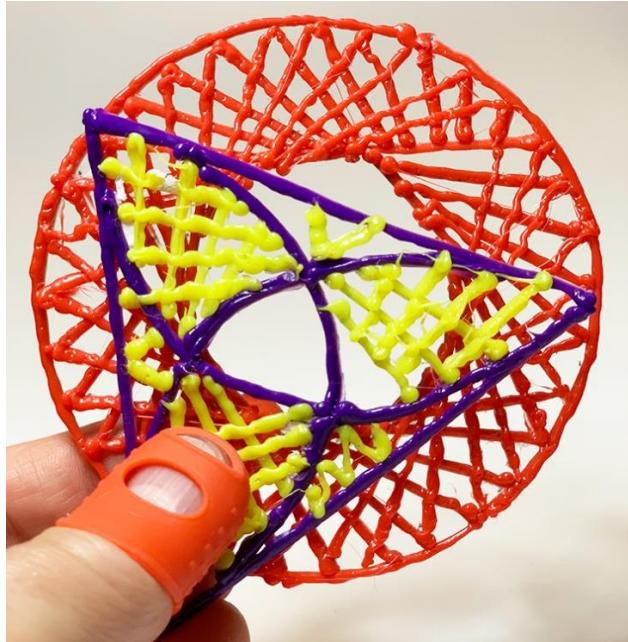


On the stencil, draw the lines in the interior of the circle with the 3D pen by finding a starting point as pictured. Work your way around the circle clockwise.

STEP FIVE:

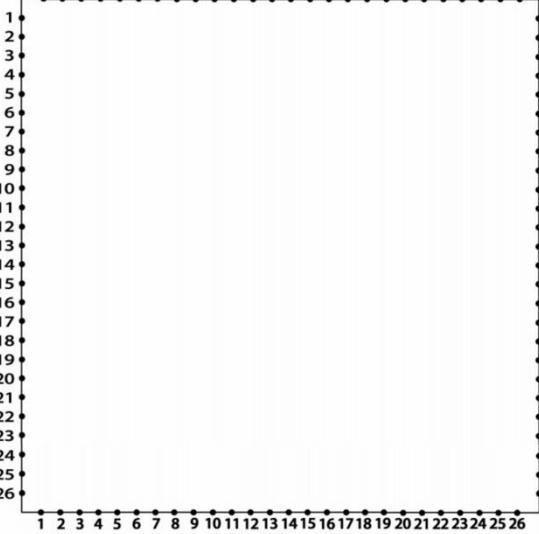


If you use a plastic sheet protector, the circle parabola should peel off the stencil easily. If you made it by extruding the filament directly on the paper stencil, some of the paper will stick to the back. To remove the paper, rinse it with warm water and dry with a paper towel.



 Make Your Own Parabola Stencil

Using a ruler, draw your own parabola stencil. Use your 3D pen to complete your design.



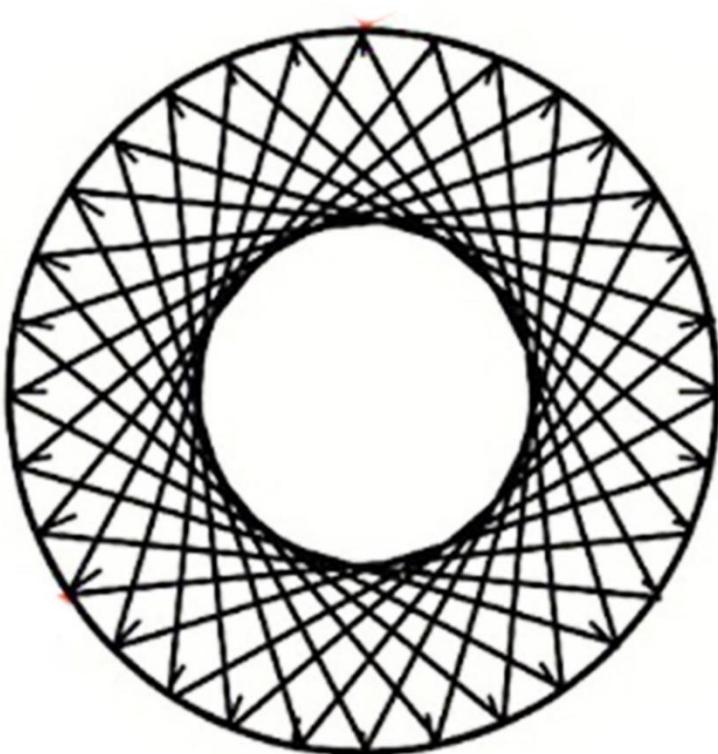
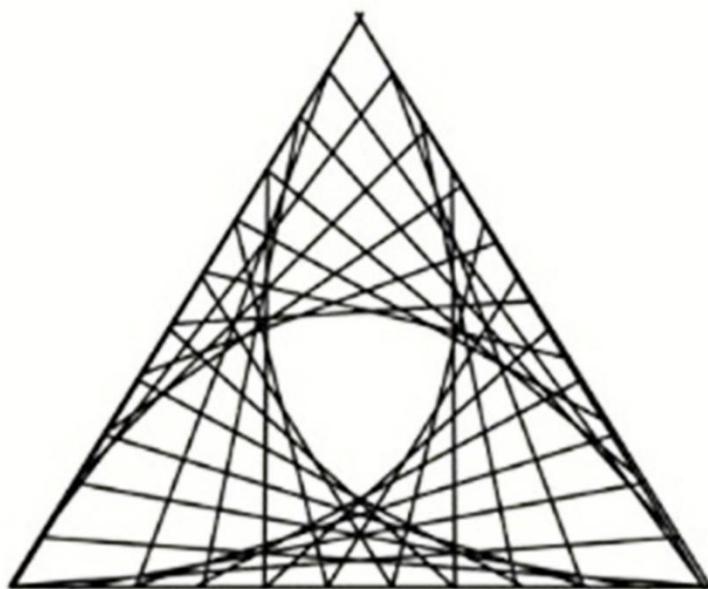
Your triangle and circle parabola designs are now complete!

A second stencil is provided for you to use to create your own parabola design.



BRAIN^{!!!}
BUSTER 3D

Triangle & Circle Parabola Stencils





**BRAIN
BUSTER** **3D**

Make Your Own Parabola Stencil

Using a ruler, draw your own parabola stencil. Use your 3D pen to complete your design.

