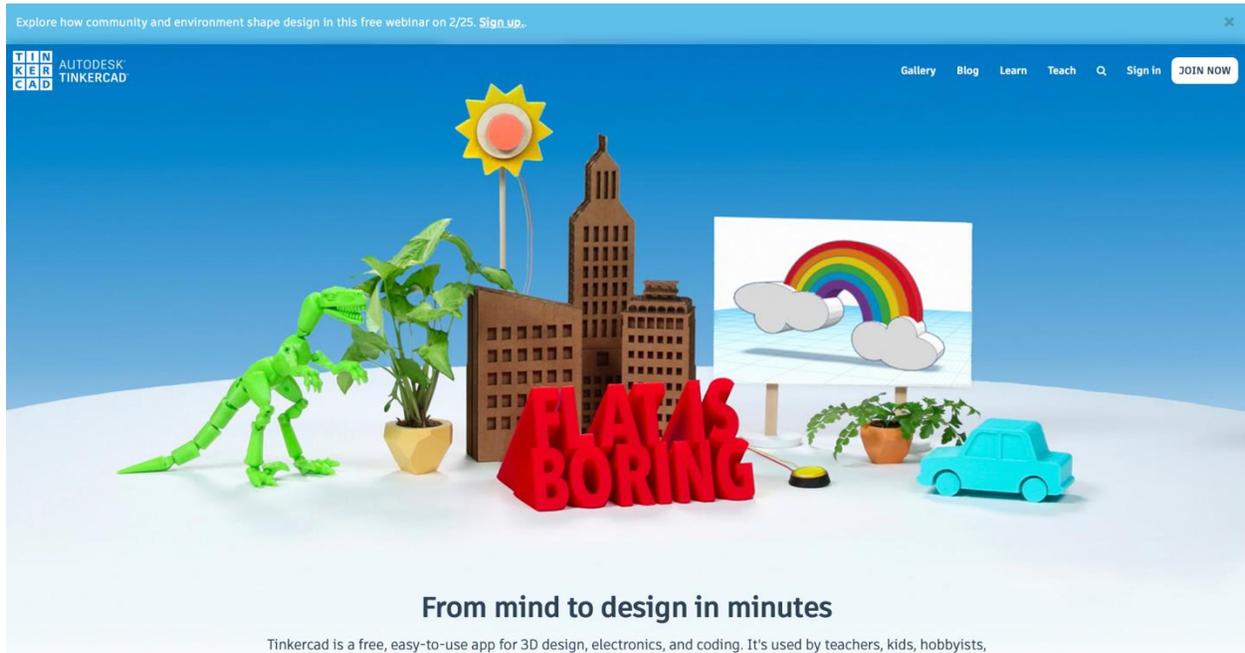


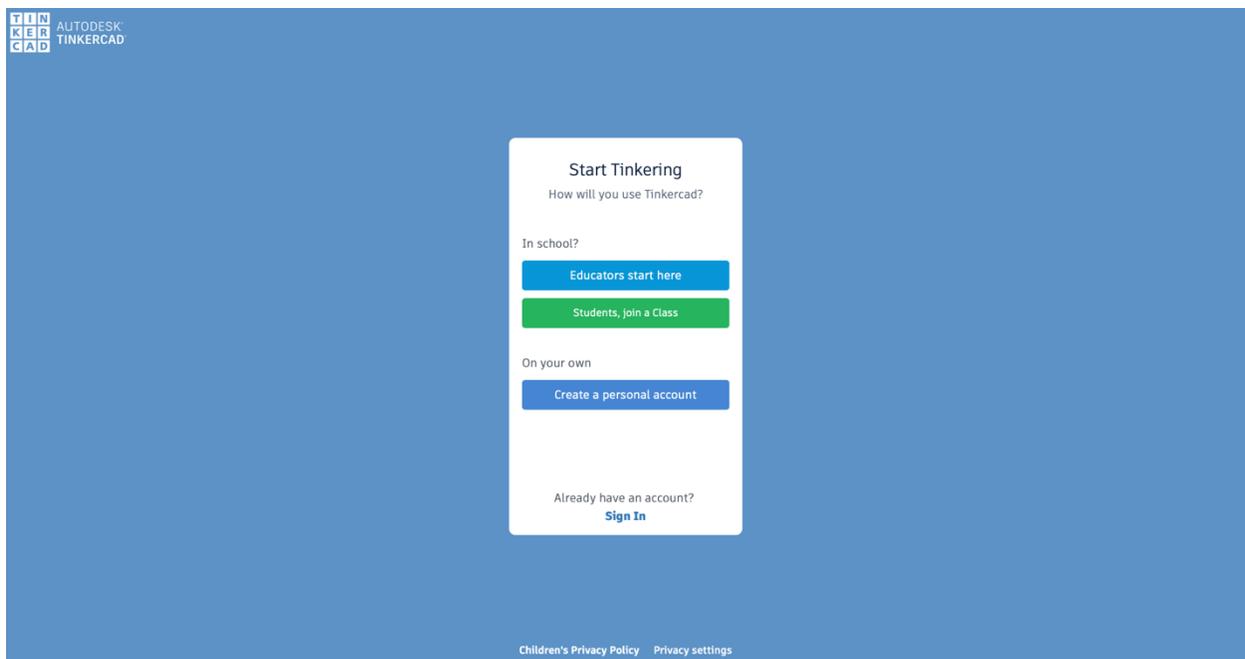
Billings Public Library TinkerCad 3D Printing Instructions

Step 1: Create a free account

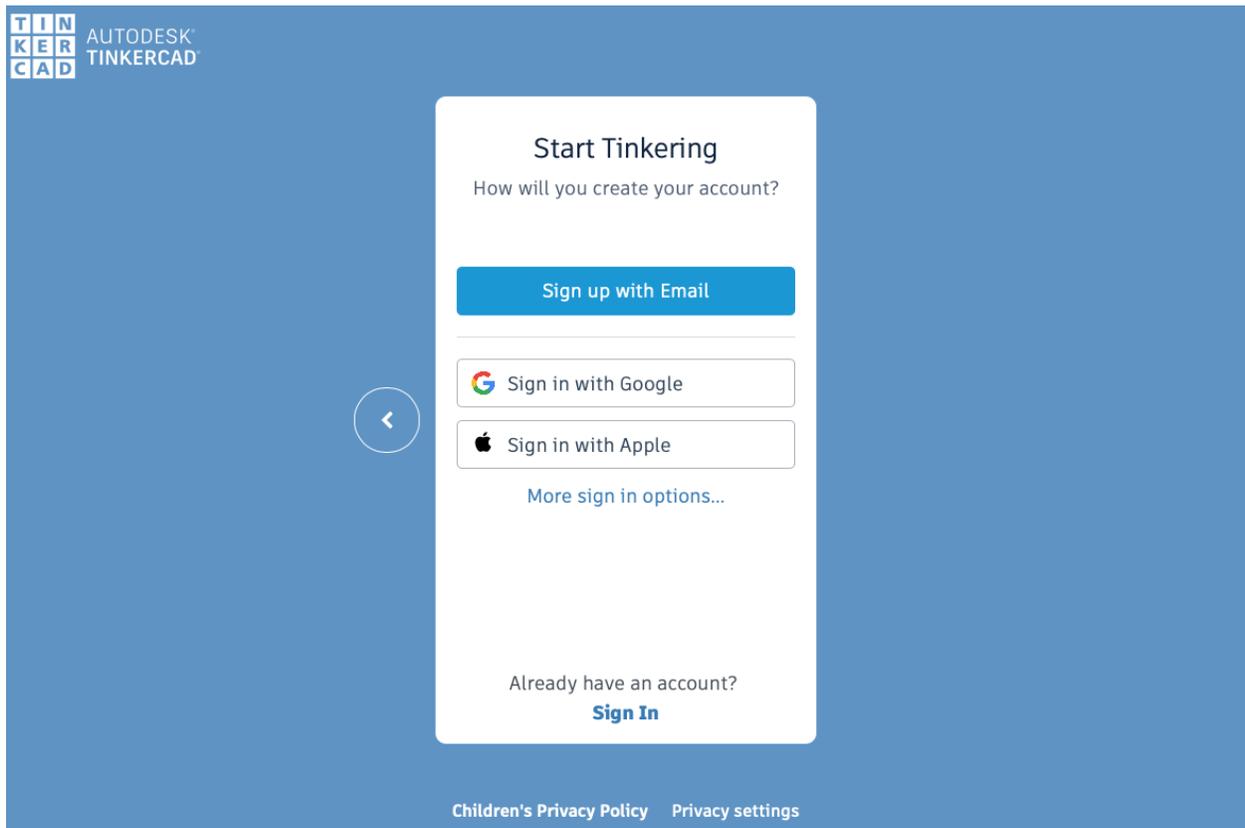
- Go to tinkercad.com
- Click "Join Now" in the upper right corner



- Click "Create a personal account"

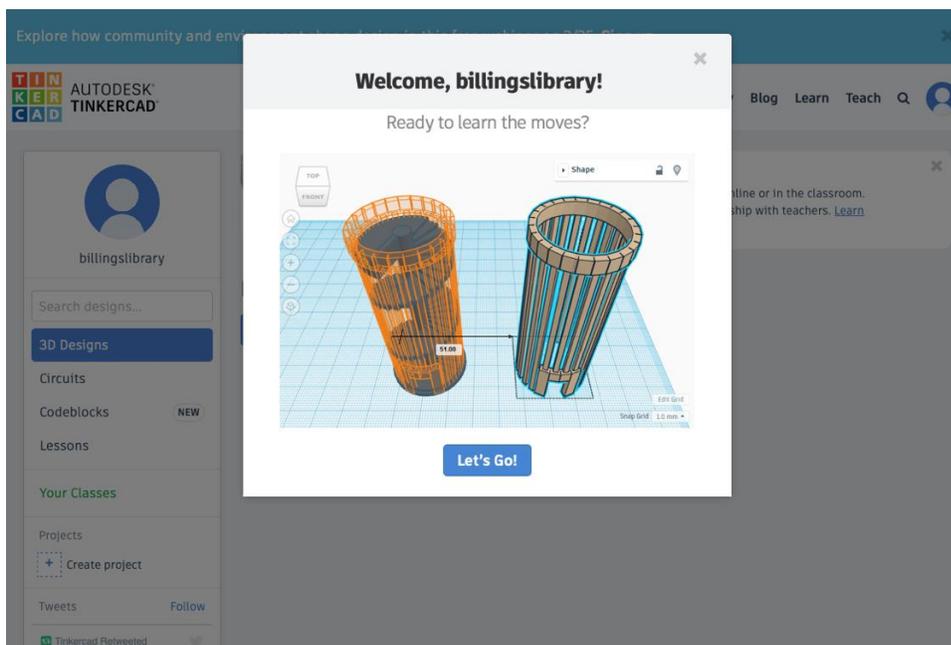


- Choose one of the sign in options and create an account



Step 2: Try the introduction tutorial

- Click "Let's Go!"



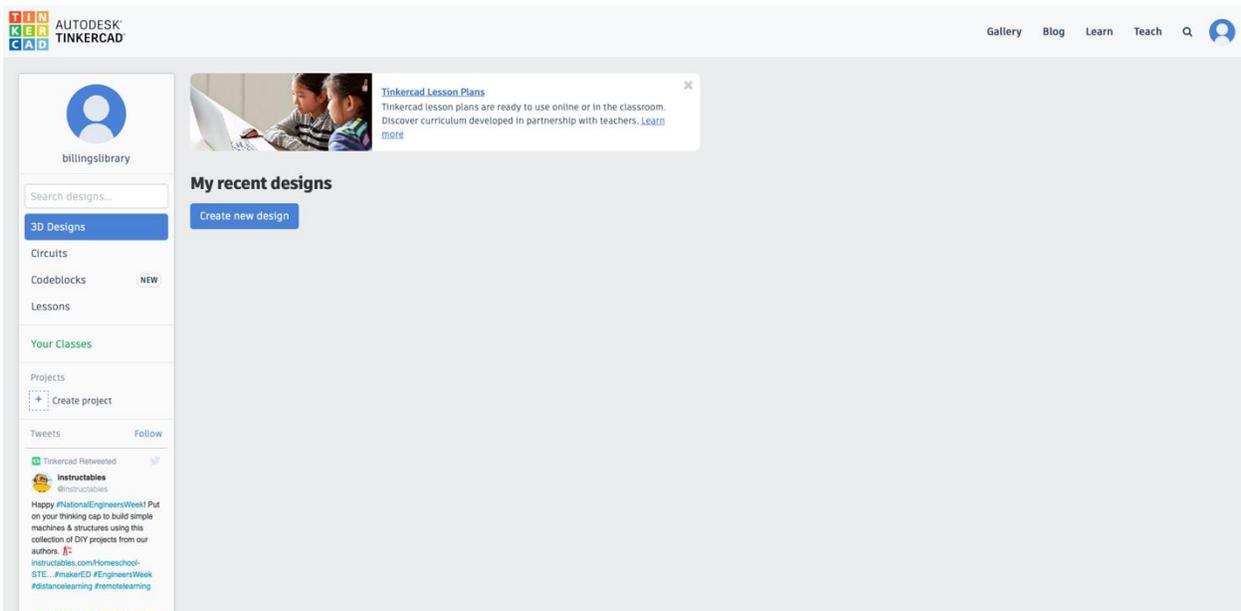
Tutorial Summary

- Move objects by dragging them across your screen with your mouse or trackpad. You can also left click the object and use the arrow keys to move it.
- Use the ViewCube (in the upper left corner) so that you can see your design from other angles. You can click different areas on the ViewCube to view different sides of your design. You can also press and hold your mouse while dragging to rotate your view. If you have a touchpad, you can right click and drag or press Control and left click while you drag.
- You can zoom in and out by scrolling if you have a mouse with a scroll wheel. If you have a trackpad, you can pinch to zoom.
- You can add shapes to your design by dragging them from the column menu on the right side of your screen.
- You can group shapes by pressing shift and clicking the shapes, and then clicking "Group" in the toolbar menu at the top of your screen
- You can create holes in objects by dragging a shape onto another shape. You then select the shape you wish to make a hole by left clicking it and then selecting the "Hole" option in the inspector window (in the upper right corner). Now, group the two shapes together by pressing the shift button, clicking each shape and pressing "Group" in the toolbar menu at the top of your screen

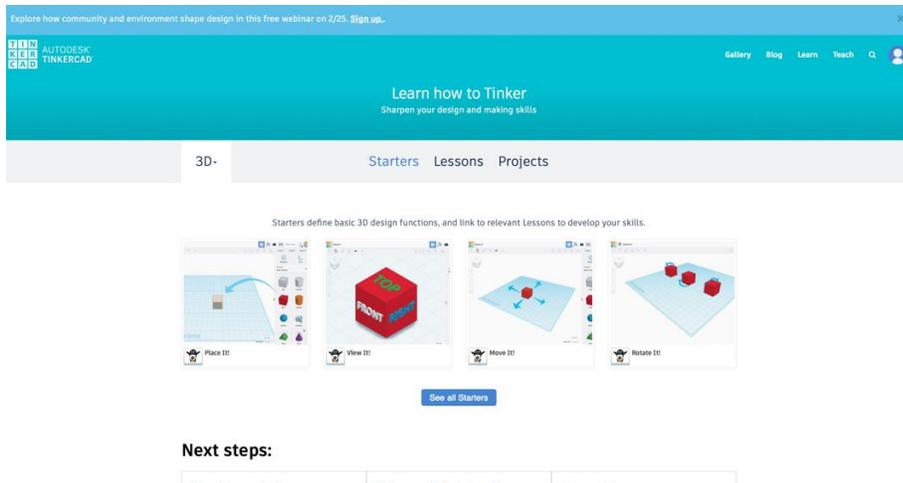
- To adjust the dimensions of a shape, click and drag the white or black squares on the shape. To adjust the size of the object without affecting the ratio of its dimensions, press shift while dragging a square on the shape.
- You can copy and paste shapes by selecting a shape and pressing Control+C/Command+C, and then pressing Control+V/Command+V
- You can delete a shape on your screen by clicking it and then pressing the delete key on your keyboard.
- To make an object easier to place, you can drag a workplane tool from the column menu onto your design space, and then add a new shape on that workplane. To remove your workplanes, drag a new workplane into a blank area in your design space.

Step 4: Practice using TinkerCad to improve your skills

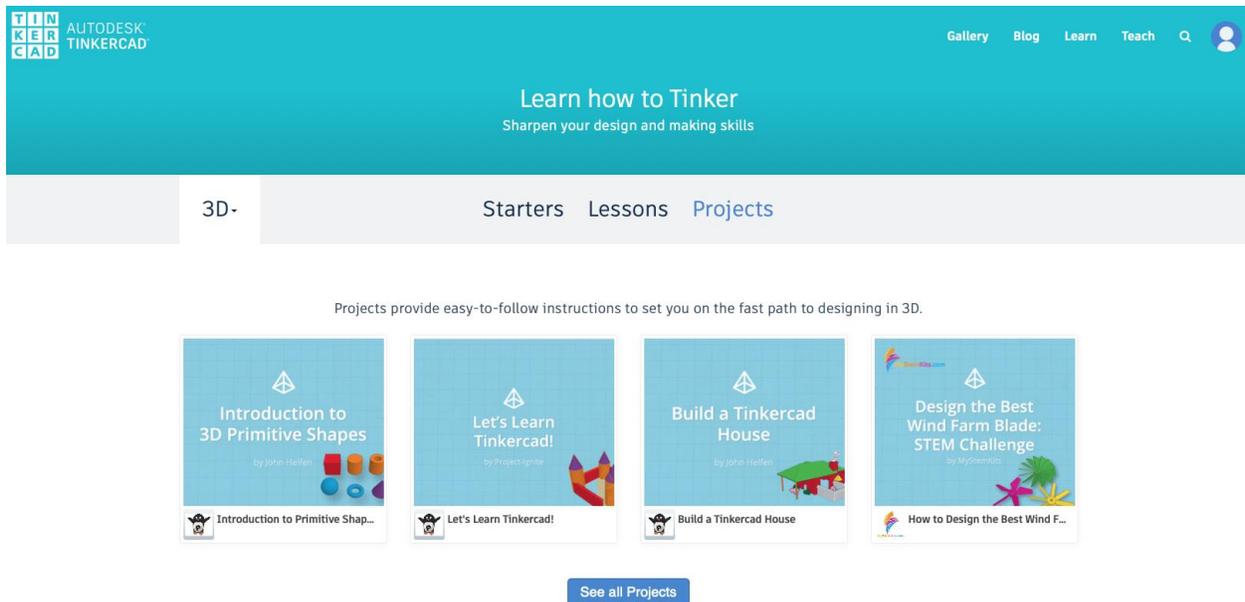
- Click “Learn” in the upper right corner of your screen



- Click one of the “Starters”

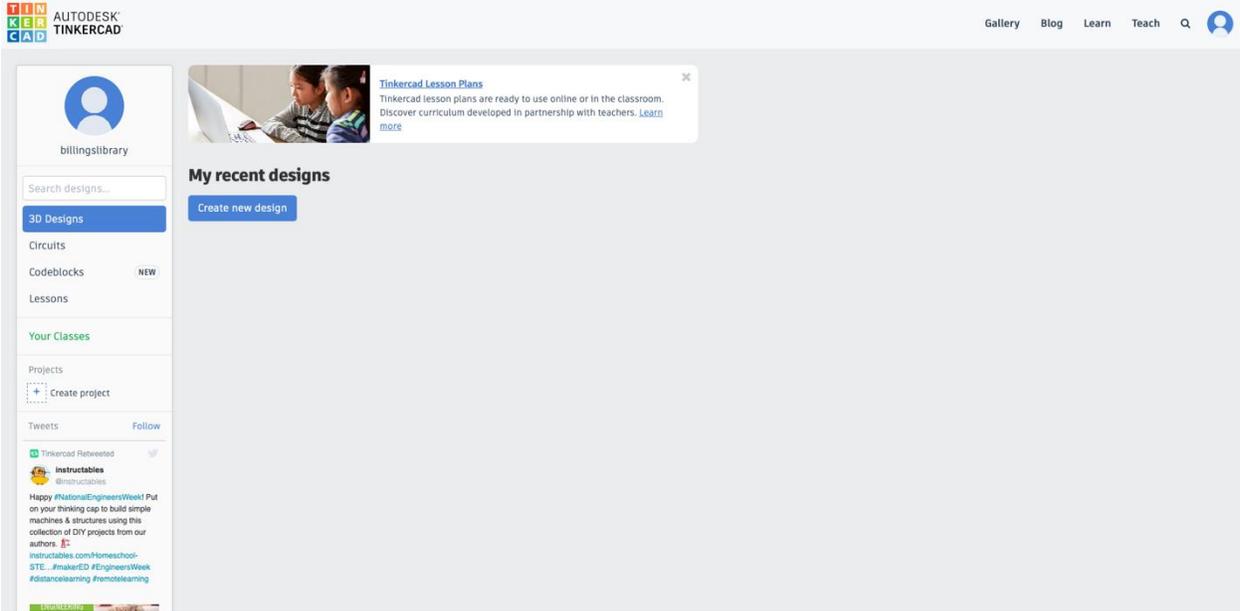


- If you'd like to go more in depth, click "Projects" and try one.

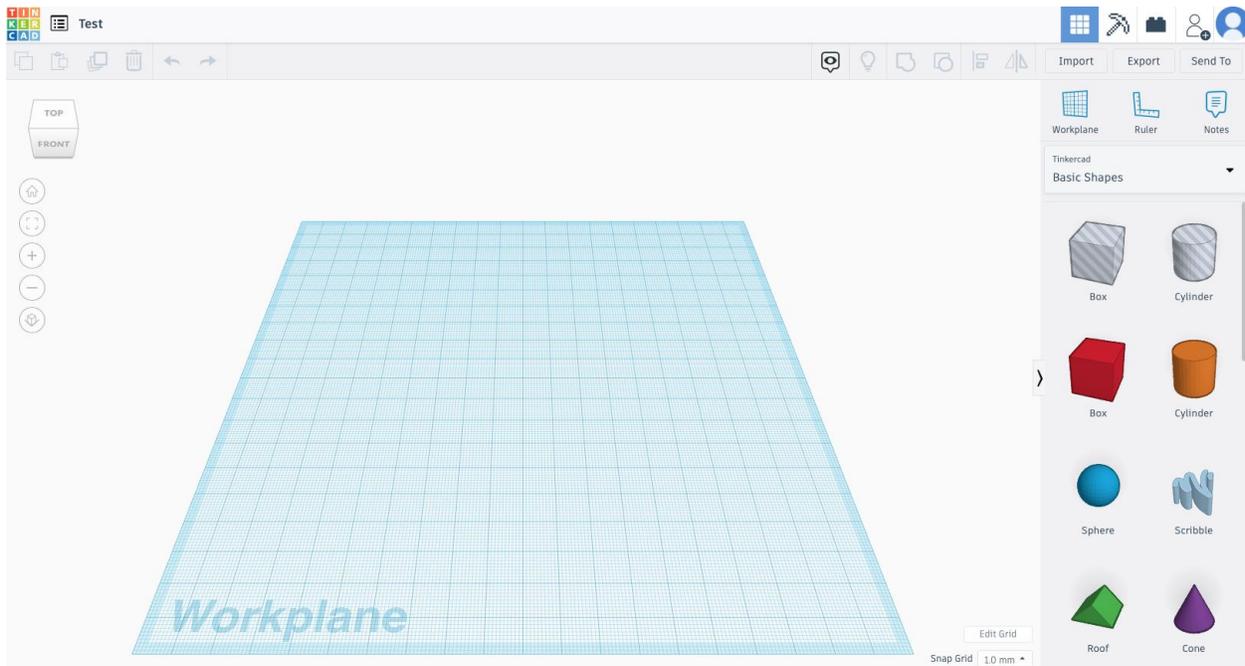


Step 5: Make your own design

- Click "Create new design"

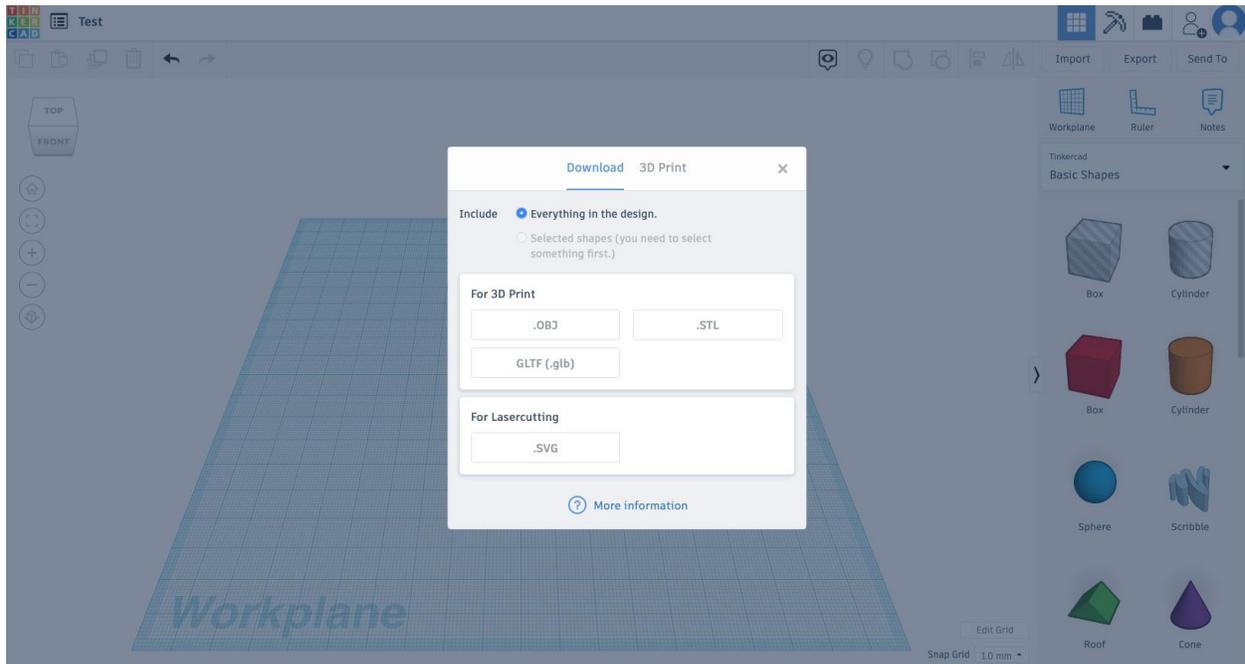


- Make your design using what you've learned from the tutorials



Step 6: Send your design to the library

- Export your design by clicking “Export”



- Click “.STL”
- Check the Billings Public Library’s [Teen Page](#) for current color options for you 3D design. Email your name, STL file, color choice, and any other important information to justicev@billingsmt.gov

Created by Billings Public Library’s [Teen Advisory Group](#)

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