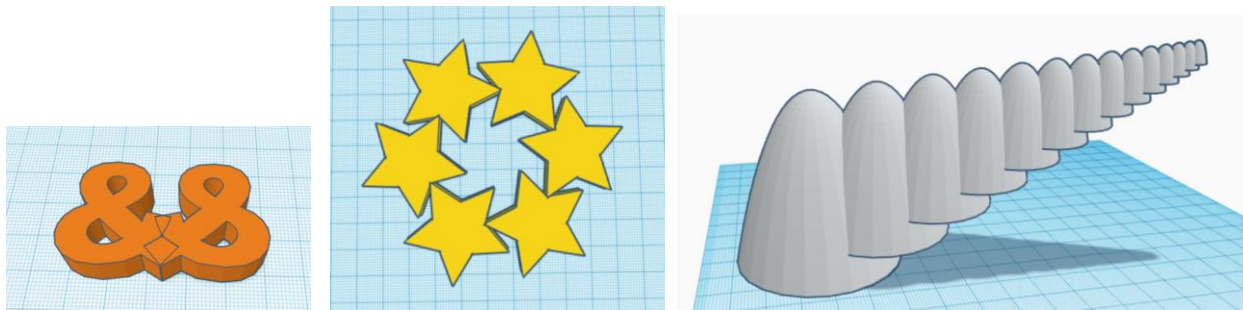


**Cambridge Public Library  
Learning Circle: Introduction to 3D Printing  
Week 3**

**Check-in** (6:00 – 6:10)

**Review** (6:10 – 6:30)

By yourself or with a partner, try to create the following shapes using what we've learned.



**Coursework** (6:30 – 7:15)

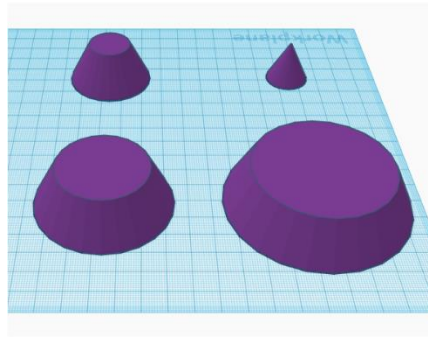
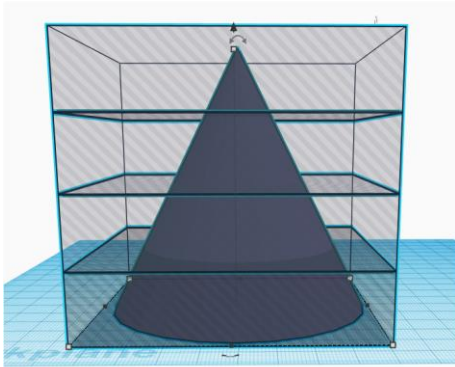
**5. Shape Generators and Special Tools**

- **Introducing Shape Generators**
  - From the drop-down menu, go to Shape Generators → Featured.
  - Choose a shape and modify it using the shape controls.
- **The extrusion generator**
  - From the drop-down menu, go to Shape Generators → Featured → Extrusion
  - Using the handles in the shape control panel, make a unique shape.
- **The image generator**
  - Go to the Image Generator: Shape Generators → Featured → Image Generator.
  - Find an image online and add it to your workplane using the Image Generator tool.
- **The Text tool**
  - Add any word to your workplane and change the font and bevel.

**6. Creating Complex Shapes**

- **Creating a dice shape**
  - Create a dice shape using the demonstrated technique.
  - Or create another complex shape using that technique.
- **Combining shapes to make a profile (EXTRA CREDIT)**
- **Butting shapes together (EXTRA CREDIT)**
- **Creating a finial shape (EXTRA CREDIT)**

- **Splitting an object**
  - Split a shape into segments using the demonstrated technique (example below)



- **Slicing with hole objects**
  - Try creating a unique shape using hole objects (it doesn't have to be as intricate as the one in the demo!).

## 7. Importing Assets

- **Importing 2D SVGs**
  - Find a simple image using Google image search.
  - Convert the image to a .svg file by going to <https://www.online-convert.com/>
  - Save the .svg file to your computer.
  - Import the image onto your workplane and modify however you'd like.
- **Importing 3D STLs**
  - Go to [www.thingiverse.com](http://www.thingiverse.com) and download a shape (as a .stl file).
  - Import the shape into your workplane and add to it/modify however you'd like.

### Independent/Partner Work (7:15 – 8:00)

- Watch the “EXTRA CREDIT” videos from above.
- Try a Tinkercad guided lesson. Go to: **Tinkercad homepage > Learn > Lessons > See all lessons**

or

- Start designing your own thing!