



# Fab Lab Essentials

## 3D Printer - Cookie Cutter



Name	Period	Score
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### Introduction

There are many ways to solve a problem. Sometimes it is as simple as applying a piece of duct tape. Other times it takes months or years for a product to progress from an idea into full-scale production. Often engineers and designers use a specific set of steps (sometimes called a design process) to find the best solution to a problem.

In this activity your team will act as designers in a company that will be at a tradeshow. Your task is to create an attractive cookie cutter design that will be a marketing giveaway item for potential customers to remember your company by. A design process that progresses from brainstorming to presenting a final design will be used and documented. Each member of the team will have a product to present to the company executives for final approval.

### Equipment

- Laptop computer with Inventor
- Makerbot or Cube 3D Printer
- Fab Lab Notebook
- Pencil
- Pen

### Materials

- PLA or ABS Filament

### Procedure

In a team of three or four, using only the materials provided, design and 3D print a cookie cutter for each member that can be used as a sample for a marketing giveaway. You also need to create a fictional name and logo for your company to be part of your design.

Brainstorm- Each member of the team will draw a minimum of three brainstorming ideas for your cookie cutter in your Fab Lab notebook. The more ideas you generate the better. You may handle and inspect the materials and research examples from the internet but you cannot copy anything directly or download any copy written or trademarked material from the internet.

Design- Sketch an annotated solution in your Fab Lab notebook. The design needs to be such that it can be transferred into Inventor and made into an STL file. All changes from your design idea to the actual 3D model need to be documented.

Load your files into the appropriate software on the computer attached to the 3D printer you are using and print the file.

