

# 3d Printing & Design



From conception to completion, students will learn how to design using TinkerCad, a computer aided design software that is kid friendly, and the final result will be a physically 3d printed model that will be sent to them! Learning a CAD program is essential for any maker and inventor as it is used by hobbyist to career professionals. Check out the fun creations that we will be making!

## Level 1 Classes

**Keychain & Tic-Tac-Toe Game**  
**Book Marks & Custom Light Switch**  
**Cookie Cutter & Table Organizer**  
**Zipper Pull & Pencil Toppers**

## Level 2 Classes

**N.Switch Game Holder & Round Key Chain**  
**Fridge Magnets & Light Box**  
**Necklace & Ear Rings**  
**Mini Table Hockey & Wall Hanger**

## Level 3 Classes

**Stencils & Custom Book Ends**  
**Phone Holder & Mini Spotlight**  
**Qtip Crossbow & Magnetic Name Tag**

## Level 4 Classes

**Custom Wall Clock & Storm Trooper**  
**Harry Potter Theme**

## What are the Levels?

- Level 1** These classes are great for beginners who are new to CAD design or for students who have dabbled in TinkerCad before. Concepts covered includes: using “Basic Shapes”, moving, scaling, resizing, making holes, navigating, button functionality, saving and exporting files, and the metric system.
- Level 2** Must be familiar with concepts covered in Level 1. Concepts covered includes all of level 1 plus combining parts, making holes in different planes, aligning objects, and two component parts.
- Level 3** Students in this class are comfortable with TinkerCad and know the concepts in Levels 1-3. This class will involve more complex projects that involve more design concepts to be applied properly as well as adding greater details to your project.
- Level 4** Students in this class are comfortable with TinkerCad and know the concepts in Levels 1-3. This class will involve more complex projects that involve more design concepts to be applied properly as well as adding greater details to your project.

## Requirements

For Ages 9-15

Must have a computer(no tablets or phones)

An external mouse is highly recommended

## Cost

\$105 per class

Includes 3d printed parts  
(between 2-4 parts per class)

Includes shipping cost of parts

## Schedule

Each session is 2 weeks long meeting 2 days a week on Monday & Wednesday or Tuesday & Thursday. Each class is 1.5 hours long. There are 4 meetings total for each session.

### Session 1 : 2 weeks, 4 meetings. June 15th - June 26th

#### Monday & Wednesday

10:30am-12:00pm : Level 1 - Keychain & Tic-Tac-Toe  
 12:30pm-2:00pm : Level 2 - Game Holder & Round Key Chain

#### Tuesday & Thursday

10:30am-12:00pm : Level 2 - Fridge Magnets & Light Box  
 12:30pm-2:00pm : Level 1 - Book Marker & Light Switch

### Session 2 : 2 weeks, 4 meetings. June 29th - July 10th

#### Monday & Wednesday

10:30am-12:00pm : Level 1 - Cookie Cutter & Table Organizer  
 12:30pm-2:00pm : Level 2 - Necklace & Ear Rings

#### Tuesday & Thursday

10:30am-12:00pm : Level 2 - Mini Table Hockey & Wall Hanger  
 12:30pm-2:00pm : Level 1 - Zipper Pull & Pencil Topper

### Session 3 : 2 weeks, 4 meetings. July 13th - July 24th

#### Monday & Wednesday

10:30am-12:00pm : Level 2 - Picture Frame & Fridge Magnets  
 12:30pm-2:00pm : Level 3 - Custom Book Ends & Stencil

#### Tuesday & Thursday

10:30am-12:00pm : Level 3 - Phone Holder & Mini Spotlight  
 12:30pm-2:00pm : Level 1 - Keychain & Tic-Tac-Toe  
 2:30pm-4:00pm : Level 4 - Harry Potter

### Session 4 : 2 weeks, 4 meetings. July 27th - Aug 7th

#### Monday & Wednesday

10:30am-12:00pm : Level 2 -Game Holder & Round Key Chain  
 12:30pm-2:00pm : Level 4 - Wall Clock & Storm Trooper

#### Tuesday & Thursday

10:30am-12:00pm : Level 3 - Qtip Crossbow & Magnetic Name Tag  
 12:30pm-2:00pm : Level 1 - Book Marker & Light Switch  
 2:30pm-4:00pm : Level 4 - Harry Potter

## Daily Schedule

**0-10 Minutes** Check-in and Hang Out

**10-50 Minutes** Class in progress - Lesson Implementation

**50-70 Minutes** Class Break - Group Games

**70-90 Minutes** Class in progress - Lesson, Share Accomplishments, Assign Work

Register online at [www.BrainBuildersEd.org](http://www.BrainBuildersEd.org)