

# **Lesson 2: Introduction to Tinkercad + First Project**

3D Printing Center - Village School

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v1

2025

# Welcome Back!

## Quick Review

### What did we learn about 3D printing?

- Builds layer by layer
- Starts with computer designs
- Uses heated plastic
- Helps people in many ways

# Today's Mission

## Learn to Design in 3D!

- **Login** to Tinkercad
- **Learn** basic navigation
- **Design** your first keychain
- **Save** your creation

## Your 3D Design Tool

- **Free** online tool
- **Easy** to learn
- **Powerful** for beginners
- Used by **millions** of students

*Let's get started!*

## Login Steps

1. Open your web browser
2. Go to **tinkercad.com**
3. Use your **school Google account**
4. Click **“Sign In”**

*Wait for everyone before moving on*

## Basic Navigation (10 minutes)

### The Big Three:

- **Rotate** - spin around your design
- **Zoom** - get closer or farther
- **Pan** - move left, right, up, down

*Follow along with the built-in tutorial*

# Your First Project

## Design a Keychain!

### Requirements:

- Must have a **hole** for keyring
- No bigger than **50mm** in any direction
- At least **3mm thick**
- Use at least **2 shapes**

## Building Your Keychain

1. **Start** with a basic shape (cube, cylinder, etc.)
2. **Add text** with your name or initials
3. **Create a hole** for the keyring
4. **Combine** shapes together

*Take your time - we have 20 minutes!*



## Making It Great

- **Keep it simple** for your first try
- **Make walls thick** enough (3mm minimum)
- **Don't forget** the keyring hole!
- **Be creative** with shapes and text

### Don't Be Shy!

- **Raise your hand** if you need help
- **Ask a neighbor** if they figured something out
- **Try different things** - you can always undo
- **Have fun** with it!

# Keychain Examples

## Get Inspired!

*Show printed keychain samples*

- Simple name tags
- Sports themes
- Animal shapes
- Hobby interests
- School pride

## Common Issues

- **Can't see my design?** Try zooming out
- **Shapes won't combine?** Select all, then group
- **Text looks weird?** Check the height setting
- **Hole too small?** Make it at least 5mm wide

## Don't Lose It!

1. Click “**Design**” menu
2. Choose “**Save**”
3. Give your design a good name
4. Make sure it's saved to your account

## Show and Tell Time!

- **Walk around** and see everyone's designs
- **Give compliments** to your classmates
- **Ask questions** about cool features
- **Be proud** of your work!

# What Happens Next?

## The Printing Process

- Your designs will be **printed** between lessons
- **Everyone** will see the results next lesson!

## How Did It Go?

### Quick share:

- What was **easy** about Tinkercad?
- What was **challenging**?
- What would you **change** about your design?



## Lesson 3 Preview

### “How Printing Works + Design a Container”

- See your keychains printed!
- Learn more about the printing process
- Design a useful container

# Cleanup Time!

## 5 Minutes to Pack Up

- **Save** your work one more time
- **Close** your browser tabs
- **Clean up** your workspace

**Excellent work designing today!**