3D Design: Level I
Suitable for: G7 - G10

Prerequisite: None
Duration: 13 Weeks
Classes per Week: 1 class (45 minutes each)

Course Overview:

This course introduces students to the fundamentals of 3D design using Tinkercad, a beginner-friendly 3D modeling software. Students will learn to create and manipulate 3D objects, exploring various shapes, structures, and design techniques. By the end of the course, students will have developed skills in creating digital 3D models for various real-world objects.

Covered Topics

Unit 1: Introduction to 3D Design
- Understanding the basics of 3D design and its applications
- Introduction to Tinkercad as a 3D modeling tool
- Exploring basic shapes and functions in Tinkercad

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Unit 2: Beginner Projects in 3D Design
- Building simple objects like the Great Wall and Thor's Hammer
- Applying basic transformations and manipulations
- Learning to use various tools and features effectively

Unit 3: Practical 3D Design Projects
- Creating functional items like a pen holder, water bottle, and dice
- Experimenting with size, shape, and detail to improve designs
- Developing problem-solving skills through object creation

Unit 4: Advanced 3D Objects and Personalization
- Designing more complex models like a phone stand, house, and hairbrush
- Introducing personalization by adding names and text to models
- Building creativity and precision in 3D modeling

Unit 5: Personalized Projects

- Creating personalized projects, such as an ice cream model or cup with a name
- Combining learned skills to demonstrate proficiency in 3D design

Materials Needed:

- Access to a computer or tablet
- Internet connection
- Chrome browser
- Access to Thinkercad

Certification

A certificate of completion will be awarded to students who successfully complete the course, recognizing their proficiency in introductory 3D design.