KANG CHIAO INTERNATIONAL SCHOOL

**2023-2024 Fall Semester
Maker Class Syllabus
IP9A**

**International Department
Hsinchu Campus**

Week	Date	Chapter	Lesson
1	08/30-09/01 08/30 First Day of Semester	No Class	
2	09/04-09/08	TinkerCAD: 3D Design – Exercises	Welcome and Course Overview Lesson 1: Learning the Moves Lesson 2: Camera Controls Lesson 3: Creating Holes Lesson 4: Scale, Copy, and Paste Exercise 1: Fountain Exercise 2: Log Cabin Exercise 3: Locking Container
3	09/11-09/15 09/16 PTC	Project: 3D Design + Laser Cutting – TinkerCAD	Step A1: Make 3D Models of the Clock Face Step A2: Make 3D Models of the Clock Base
4	09/18-09/23 09/23 Make-up Day for 10/09	Project: 3D Design + Laser Cutting – TinkerCAD – RDWorks	Step A2: Make 3D Models of the Clock Base Step A3: Make 3D Models of the Clock Walls Step A4: Prepare RLD and RD file for Cutting
5	09/25-9/29 09/29 Moon Festival	Project: 3D Design + Circuits – Word Clock	Step B1: Assemble the Clock Face (Face + Walls) Step B2: Assemble the Clock Base (Base + Blocks)
6	10/02-10/06	Project: 3D Design + Circuits – Word Clock	Step B3: Assemble the LED Panel (Cut + Stick LED) Step B4: Assemble the LED Panel (Prepare Wires)
7	10/09-10/13 10/09 and 10/10 Double 10 Holiday	No School on October 10th	
8	10/16-10/20	Project: 3D Design + Circuits – Word Clock	Step B5: Assemble the LED Panel (Solder Wires)
9	10/23-10/27	Project: 3D Design + Circuits – Word Clock	Step B5: Assemble the LED Panel (Solder Wires)
10	10/30-11/03	Project: 3D Design + Circuits – Word Clock	Step B5: Assemble the LED Panel (Solder Wires)
11	11/06-11/10	Project: 3D Design + Circuits – Word Clock	Step B6: Assemble the LED Panel (Light Grid) Step B7: Assemble the Circuit (CPX + RTC)
12	11/13-11/17	Project: Coding – Word Clock – Adafruit CircuitPython	Lesson 1: CircuitPython CPX Buttons and Switch (board Library)
13	11/20-11/24	Project: Coding – Word Clock – Adafruit CircuitPython	Lesson 2: CircuitPython CPX Neopixels (neopixel Library)
14	11/27-12/01	Project: Coding – Word Clock – Adafruit CircuitPython	Lesson 2: CircuitPython CPX RTC (busio and adafruit_ds3231 Libraries)
15	12/04-12/08 12/08 Sports Day	Project: Coding – Word Clock – Adafruit CircuitPython	Step C1: Write the Code with CircuitPython
16	12/11-12/15	Project: Coding – Word Clock – Adafruit CircuitPython	Step C1: Write the Code with CircuitPython
17	12/18-12/22	Project: Coding – Word Clock – Adafruit CircuitPython	Step C1: Write the Code with CircuitPython
18	12/25-12/29	Project: Coding – Word Clock – Adafruit CircuitPython	Step C1: Write the Code with CircuitPython
19	01/01-01/05 01/01 New Year's Day Holiday	Project: Coding – Word Clock – Adafruit CircuitPython	Step C1: Write the Code with CircuitPython
20	01/08-01/12	Project: Coding – Word Clock – Adafruit CircuitPython	Step C2: Test the Code
21	01/15-01/19 01/19 Last Day of Semester	Project: Coding – Word Clock – Adafruit CircuitPython	Course Wrap-Up and Reflection