

Process(Elaine&Jerry)	Tools/Materials	L1	L2	L3	L4	L5	L6	Role
1 Draw the floor plan on the wooden board with the right dimensions.	Pencil, ruler, calculator, compass, wooden board	15 min						Elaine
2 Collect all materials needed.	Wooden strips&sticks, foam, super-light clay, bricks, stones, trees, grass powder, aluminium foil, PVC sheet, LED light strip&battery	10 min	10 min				10 min	Elaine Jerry
3 Construct the wooden base for 1st (crescent) and 2nd floors (circular)	Scroll saw, wooden board, hand files, sandpaper	25 min						Jerry Elaine
4 Cut the wooden strips to 5cm, 1.5cm and 9cm lengths pieces	Scroll saw, wooden strip, sand paper		20 min					Elaine Jerry
5 Cut the foam to a column and a slope structure for 2nd floor base and the art gallery.	Laser cutter, craft knife, sandpaper, foam	20 min					10 min	Jerry
6 Stick the 5cm wooden strips to the foam cylinder to create the outer wall of the base.	Hot glue gun, cutted wooden strips		20 min					Elaine
7 Stabilize the 1.5cm wooden strips to the wooden surface of the cylinder diagonally.	Hot glue gun, pencil, wooden strips		20 min					Elaine
8 Use horizontal and vertical wooden strips to build the art gallery structure.	Hot glue gun, wooden strips		25 min					Jerry
9 Stick the Solar panel and photographs on the roof and wall.	Printer, paper, hot glue gun					10 min		Elaine
10 Laser cut the circular rings on the top and the 2-step stairs on 2nd floor	Onshape, laser cutter, wooden board			20 min				Elaine
11 Stick wooden sticks along the 1st floor edge, keep the entrance	Hot glue gun, wooden sticks			15 min				Jerry
12 Spray grass powder in the four areas. Put trees along the side.	White glue, grass powder		15 min	15 min		10 min		Jerry
13 Add stones, bricks, and water feature cream to mimic lake area.	Hot glue gun, stones, bricks, water feature cream, paintbrush				15 min	15 min		Jerry Elaine
14 Put super-light clay on the foam slope, Al foil on the wood blocks	Super-light clay, aluminium foil							Jerry
15 3D model&print chairs, benches, round tables, slide, water sink	Onshape, PLA		30 min	30 min				Elaine
16 Use 3D printing pen to build dog tunnel, climbing net, bookshelf and painting easel.	3D printing pen, PLA				30 min	30 min		Jerry
17 Cut the PVC sheet and the cellophane sheet for walls and glass fence.	PVC sheet, acrylic sheet scissors, ruler, hot glue gun				20 min			Elaine
19 Stick the transparent circular top on the wall structure	Hot glue gun, acrylic sheet				10 min			Elaine
17 Install LED light strips under the 2nd floor base for 1st floor lighting	LED strip lights, battery pack, foam cutter						15 min	Jerry
18 Assembly all structures	Hot glue gun, scissors, ruler						45 min	Elaine Jerry