Peicai Secondary School
Subject Overview for Semester 1 2023
Design & Technology | Secondary 1 | Express

1. *Assessment Mode*

Students will be assessed through two Design Projects that requires demonstration of the learning outcomes across the content sections of Design and Technology. This assessment mode comprises the following components; namely a design journal, mock-ups and prototypes which will be carried out over a few weeks during curriculum time.

2. *Assessment Weightage*

Components	WA1 (15%)	WA2 (15%)	End of Module (70%)
Deliverables	*Key Tag – Design: Process (Ideation)*	Handphone stand-Design: Rendered 3D presentation sketch	*Handphone stand-Design & Technology: Design mock-up, light circuit, and final prototype*
Work Timeline	*Term 1 Week 4-6*	Term 2 Week 2-4	*Term 2 Week 6-9*
Submission Deadline	*Week 6*	Week 4	*Week 9*

3. *Weekly Work Schedule*

Term 1 [3 Jan – 10 Mar]			
Week	**Chapter/Topic/Skill/Area**	**Assignment/ Homework**	**Assessment**
Week 1 [2 Jan – 6 Jan]	**Start Smart Program**		-
Week 2 [9 Jan –13 Jan]	**Start Smart Program**		-

Week 3 [16 Jan – 20 Jan] *18-Jan (Wed) timetable replaced with even week Monday timetable* *CNY celebrations, 20 Jan (Fri)*	• Class Admin.
	 • Overview of D&T.
	 • Workshop safety briefing:
	 • Start of Project #1 [Key Tag]:
	   o Design Process Model (5 stages)
	   o Design need, design brief and design specifications
		• Stating of design need, design brief and design specifications	-

Week 4 [23 Jan – 27 Jan] *CNY, 23 Jan (Mon) & 24 Jan (Tue)*	• Project #1 [Key Tag]:
	   o Random lines & curves ideation technique
	   o Generating of ideas
		Ideas #1 - #8	WA1 [Ideation]

Week 5 [30 Jan – 3 Feb]	• Project #1 [Key Tag]:
	   o Random lines & curves ideation technique
	   o Generating of ideas
		Ideas #9 – #16	WA1 [Ideation]

Week 6 [6 Feb – 10 Feb]	• Project #1 [Key Tag]:
	   o 3D freehand sketch (chosen idea)
	   o Rendering of freehand sketch (using colour pencils*)
	 • *Students to bring along their colour pencils*
		• 3D sketch of chosen idea
		 • Rendered 3D sketch of chosen idea
			WA1 [Ideation]

Term 1 [3 Jan – 10 Mar]			
Week	**Chapter/Topic/Skill/Area**	**Assignment/ Homework**	**Assessment**

Week 7 [13 Feb – 17 Feb]	• Project #1 [Key Tag]:
	   o Making of mock-up
	   o Making of prototype*
	
	Students to bring along their aprons
		• Mock-up
		• Prototyping
			-

Week 8 [20 Feb – 24 Feb]	• Project #1 [Key Tag]:
	   o Making of prototype*
	   o Submission of completed prototype
	
	Students to bring along their aprons
		• Prototyping	-

Week 9 [27 Feb – 3 Mar]	• Start of Project #2 [Handphone Stand]:
	   o Design Process Model (5 stages)
	   o Design need, design brief and design specifications
	• 3D freehand sketch (existing product)
		• Stating of design need, design brief and design specifications
		• 3D sketch of existing products
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Week 10 [6 Mar – 10 Mar]	• Project #2 [Handphone Stand]:
	   o 3D freehand sketch (existing product)
	   o Shape borrowing ideation technique
	• Generating of ideas
		• 3D sketch of existing products
		• Ideas #1 - #5
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Term 2 [20 Mar – 26 May]			
Week	**Chapter/Topic/Skill/Area**	**Assignment/ Homework**	**Assessment**
Week 1 [20 Mar – 24 Mar]	• Project #2 [Handphone Stand]: ○ Generating of ideas ○ Development of chosen idea (with base)	• Ideas #6 – #10 • Development of chosen idea	-
Week 2 [27 Mar – 31 Mar]	• Project #2 [Handphone Stand]: ○ 3D presentation sketch ○ Rendering of 3D presentation sketch (using colour pencils*) * Students to bring along their colour pencils	• Rendered 3D presentation sketch	WA2 [rendered 3D presentation sketch]
Week 3 [3 Apr – 7 Apr] *Good Friday, 7 Apr*	○ Project #2 [Handphone Stand]: ○ 3D presentation sketch ○ Rendering of 3D presentation sketch (using colour pencils*) ○ Basic Electronics & Soldering * Students to bring along their colour pencils	• Rendered 3D presentation sketch • Light circuit	
Week 4 [10 Apr – 14 Apr]	• Project #2 [Handphone Stand]: ○ Soldering of light circuit* ○ Making of mock-up * Students to bring along their aprons	• Light circuit • Mock-up	
Week 5 [17 Apr – 21 Apr]	• Project #2 [Handphone Stand]: ○ Soldering of light circuit* ○ Making of mock-up * Students to bring along their aprons	• Light circuit • Mock-up	End of Module [Mock-up, Light Circuit, Final Prototype]
Week 6 [24 Apr – 28 Apr] *Hari Raya Puasa, 24 Apr (Mon)*	• Project #2 [Handphone Stand]: ○ Making of prototype* * Students to bring along their aprons	• Prototyping	
Week 7 [1 May – 5 May] *Labour Day,1May (Mon)*	• Project #2 [Handphone Stand]: ○ Making of prototype* * Students to bring along their aprons	• Prototyping	
Week 8 [8 May – 12 May]	• Project #2 [Handphone Stand]: ○ Making of prototype* ○ Submission of completed prototype * Students to bring along their aprons	• Prototyping	
Week 9 [15 May –19 May]	• Project #2 [Handphone Stand]: ○ Making of prototype* ○ Submission of completed prototype * Students to bring along their aprons	• Prototyping	
Week 10 [22 May –26 May]	**Mini- Showcase**	-	-

This subject overview is tentative and is subject to changes.