

Peicai Secondary School
Subject Overview for Semester 1 2023
Design & Technology | Secondary 3 | Express

1. Assessment Mode

Students will be assessed through various assessment modes such as written paper and a design project to demonstrate the learning of Design and Technology. This assessment mode for the design project comprises the following components; namely a design journal, prototype and mini presentation boards (PB) which will be carried out over a few weeks during curriculum time.

2. Assessment Weightage

Components	WA1 (15%)	WA2 (15%)
Deliverables	Written Paper	Design Project : Design Journal, prototype and Mini PB
Work Timeline	<i>Not Applicable</i>	Term 1: Week 5-10 Term 2: Week 1- 6
Submission Deadline	<i>Not Applicable</i>	Week 6

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] <i>18-Jan (Wed) timetable replaced with even week Monday timetable</i> <i>CNY celebrations, 20 Jan (Fri)</i>	<ul style="list-style-type: none"> ○ Class Admin. ○ Overview of D&T. ○ Workshop safety briefing: ○ Start of Project #1 [NIGHT LIGHT]: ○ Design Process Model (5 stages) ○ Theme Analysis of Night Light Technique Learnt: <ul style="list-style-type: none"> ● Mindmap- TB Pg 19 ● Analysis of Design Opportunities- TB pg 21 ● 	Design Journal	-
Week 4 [23 Jan – 27 Jan] <i>CNY, 23 Jan (Mon) & 24 Jan (Tue)</i>	<ul style="list-style-type: none"> ○ Overall Project Planning ○ Using Gantt Chart (TB Chp 1 pg 10) ○ User Profile (Senior Citizen, Child,Pet) ○ Needs (PIES) Analysis (TB Chp 2 pg 23) 	Design Journal	-
Week 5 [30 Jan – 3 Feb] <i>HBL Day #1, 1 Feb (Wed)</i>	<ul style="list-style-type: none"> ○ Product Analysis of existing Products and User Research ○ Techniques Learnt : Using ACCESSFM (TB Chp 2 pg 25) ○ Using Questionnaire (TB Chp 2 pg 28) 	Design Journal <ul style="list-style-type: none"> ○ Product Analysis ○ Questionnaire results 	WA 2 [Design Journal , prototype & Mini Presentation Board]

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Term 1 [3 Jan – 10 Mar]			
Week	Chapter/Topic/Skill/Area	Assignment/ Homework	Assessment
Week 6 [6 Feb – 10 Feb]	<ul style="list-style-type: none"> ○ Technology : Electronics ○ Soldering of Night Light Circuit <p><i>* Students to bring along their aprons</i></p>	Design Journal - Electronics	WA 2 [Design Journal, prototype & Mini Presentation Board]
Week 7 [13 Feb – 17 Feb] <i>HBL Day #2, 15 Feb (Wed)</i>	<ul style="list-style-type: none"> ○ Formulating Design Brief and Specs ○ Technique Learnt (5W1H) - (Tb Chp 2 pg 31 & 32) 	Design Journal- Design Brief and Specifications	
Week 8 [20 Feb – 24 Feb]	<ul style="list-style-type: none"> ○ Shape Borrowing Ideation ○ Techniques Learnt <ul style="list-style-type: none"> ○ (Shape Borrowing/SCAMPER) ○ Decision Matrix 	Design Journal- Shape Borrowing Ideas Decision Matrix	
Week 9 [27 Feb – 3 Mar] <i>HBL Day #3, 1 Mar (Wed)</i>	<ul style="list-style-type: none"> ○ Written Assessment <ul style="list-style-type: none"> ○ Mock-up of Chosen Design Idea 	Design Journal- Mock-Up & Evaluation	WA 1 Written Assessment Design Process and Electronics
Week 10 [6 Mar – 10 Mar]	<ul style="list-style-type: none"> ○ Start of Prototyping <p><i>* Students to bring along their aprons</i></p>		-

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Term 2 [20 Mar – 26 May]				
Week	Chapter/Topic/Skill/Area	Assignment/ Homework	Assessment	
Week 1 [20 Mar – 24 Mar] <i>HBL Day #4, 22 Mar (Wed)</i>	<ul style="list-style-type: none"> ○ Prototyping of Night Light Design 	Design Journal	WA 2 [Design Journal & Mini Presentation Board]	
Week 2 [27 Mar – 31 Mar]	<ul style="list-style-type: none"> ○ Prototyping of Night Light Design 	Design Journal		
Week 3 [3 Apr – 7 Apr] <i>HBL Day #5, 5 Apr (Wed)</i> <i>Good Friday, 7 Apr</i>	<ul style="list-style-type: none"> ○ Prototyping of Night Light Design 	Design Journal		
Week 4 [10 Apr – 14 Apr]	<ul style="list-style-type: none"> ○ Prototyping of Night Light Design & User Testing and Evaluation of Completed Design based on Design Brief and Specifications ○ Submission Deadline for Prototype 	Design Journal		
Week 5 [17 Apr – 21 Apr] <i>HBL Day #6, 19 Apr (Wed)</i>	<ul style="list-style-type: none"> ○ User Testing and Evaluation of Completed Design based on Design Brief and Specifications ○ 3D Rendering of Final Completed Design with Mini PB (Presentation Boards) 	Design Journal		
Week 6 [24 Apr – 28 Apr] <i>Hari Raya Puasa, 24 Apr (Mon)</i>	<ul style="list-style-type: none"> ○ Consolidation of Design Journal Work <ul style="list-style-type: none"> ○ Updating and refinements made to documentation in journal sheets ○ Submission 	Design Journal		
Week 7 [1 May – 5 May] <i>Labour Day, 1 May (Mon)</i> <i>HBL Day #7, 3 May(Wed)</i>	<ul style="list-style-type: none"> ○ Design Communication Skills <ul style="list-style-type: none"> ○ Project planning and documentation (Gantt Chart and Flowchart) 			-
Week 8 [8 May – 12 May]	<ul style="list-style-type: none"> ○ Design Communication Skills (How to do and document research in detail) ○ Techniques in Primary/Secondary Research 			-
Week 9 [15 May – 19 May] <i>HBL Day #8, 17 May (Wed)</i>	<ul style="list-style-type: none"> ○ Design Communication Skills (How to ideate and sketch design ideas) ○ Ideation technique of Random Lines, Shape Borrowing and SCAMPER to be covered 			-
Week 10 [22 May – 26 May]	In class enrichment activities			-

**This subject overview is tentative and is subject to changes.*