

Peicai Secondary School  
Subject Overview for Semester 1 2023  
Design & Technology | Secondary 3 | Normal (Technical)

**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
<b>Week 1</b> [2 Jan –6 Jan]	<b>Start Smart Program</b>		
<b>Week 2</b> [9 Jan -13 Jan]	<b>Start Smart Program</b>		
<b>Week 3</b> [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"> <li>○ Class Admin.</li> <li>○ Overview of D&amp;T.</li> <li>○ Workshop safety briefing:</li> <li>○ Start of Project #1 [NIGHT LIGHT]:</li> <li>○ Design Process Model (5 stages)</li> <li>○ Theme Analysis of Night Light</li> <li>Technique Learnt:               <ul style="list-style-type: none"> <li>● Mindmap- TB Pg 19</li> <li>● Analysis of Design Opportunities- TB pg 21</li> <li>●</li> </ul> </li> </ul>	Design Journal	-
<b>Week 4</b> [23 Jan – 27 Jan]  <i>CNY, 23 Jan (Mon) &amp; 24 Jan (Tue)</i>	<ul style="list-style-type: none"> <li>○ Overall Project Planning</li> <li>○ Using Gantt Chart (TB Chp 1 pg 10)</li> <li>○ User Profile (Senior Citizen, Child,Pet)</li> <li>○ Needs (PIES) Analysis (TB Chp 2 pg 23)</li> </ul>	Design Journal	-
<b>Week 5</b> [30 Jan – 3 Feb]  <i>HBL Day #1, 1 Feb (Wed)</i>	<ul style="list-style-type: none"> <li>○ Product Analysis of existing Products and User Research</li> <li>○ Techniques Learnt : Using ACCESSFM (TB Chp 2 pg 25)</li> <li>○ Using Questionnaire (TB Chp 2 pg 28)</li> </ul>	Design Journal <ul style="list-style-type: none"> <li>○ Product Analysis</li> <li>○ Questionnaire results</li> </ul>	WA 2 [Design Journal , prototype & Mini Presentation Board]

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

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

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