

Peicai Secondary School  
Subject Overview for Semester 1 2023  
Design & Technology | Secondary 4 | Express

<b>Semester 1</b>			
<b>Term 1 [3 Jan – 10 Mar]</b>			
<b>Week</b>	<b>Chapter/Topic/Skill/Area</b>	<b>Assignment/ Homework</b>	<b>Weighted Assessment</b>
<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 Monday timetable</i>  <i>CNY celebrations, 20 Jan (Fri)</i>	<ul style="list-style-type: none"> <li>• Class Admin.               <ul style="list-style-type: none"> <li>○ National Exam coursework syllabus briefing</li> <li>○ Release of Coursework QP</li> <li>○ Project theme analysis</li> </ul> </li> <li>• Start of Coursework               <ul style="list-style-type: none"> <li>○ Overall Project Planning</li> <li>○ Analysis of theme</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>- Gantt chart</li> <li>- Theme definition,</li> <li>- Mood board</li> </ul>	-
<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>• Coursework               <ul style="list-style-type: none"> <li>○ Analysis of theme</li> <li>○ Needs Analysis</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>- Mindmap</li> <li>- Identification of problem situations</li> </ul>	-
<b>Week 5</b> [30 Jan – 3 Feb]  <i>HBL A, 1 Feb (Wed)</i>	<ul style="list-style-type: none"> <li>• Coursework               <ul style="list-style-type: none"> <li>○ Needs Analysis</li> <li>○ Selection of Chosen Situation</li> </ul> </li> <li>• HBL assignment               <ul style="list-style-type: none"> <li>○ Theory revision on Design Process / Mechanisms</li> <li>○ Continuation of coursework assignments</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>- Identification of problem situations</li> <li>- Decision matrix for chosen problem situation</li> </ul>	-
<b>Week 6</b> [6 Feb – 10 Feb]	<ul style="list-style-type: none"> <li>• Coursework               <ul style="list-style-type: none"> <li>○ Research on Chosen Situation                   <ul style="list-style-type: none"> <li>- Existing Products</li> <li>- Survey and Survey Results,</li> </ul> </li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>- Existing products analysis</li> <li>- Survey and survey results summary</li> </ul>	-
<b>Week 7</b> [13 Feb – 17 Feb]  <i>WA1 (Part 1) on 15 Feb (Wed)</i>	<ul style="list-style-type: none"> <li>• <b>WA1 Written Test</b></li> <li>• Coursework               <ul style="list-style-type: none"> <li>○ Research on Chosen Situation                   <ul style="list-style-type: none"> <li>- Target User</li> <li>- Environment</li> </ul> </li> <li>○ Design Brief</li> <li>○ Design Considerations &amp; Constraints</li> <li>○ Design Specifications</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>- User &amp; Environment analysis</li> <li>- Stating of design brief</li> <li>- Identify design considerations &amp; constraints</li> <li>- Stating of design specs.</li> </ul>	WA1 – Written Test <u>Topics:</u> Design Process, Mechanisms, Electronics

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<b>Week 8</b> [20 Feb – 24 Feb]	<ul style="list-style-type: none"> <li>• Error Analysis WA1 Written Paper</li> <li>• Coursework               <ul style="list-style-type: none"> <li>○ Idea Conceptualisation</li> </ul> </li> </ul>	- Ideation	-
<b>Week 9</b> [27 Feb – 3 Mar]  <i>WA1 (Part 2) on 1 Mar (Wed)</i>	<ul style="list-style-type: none"> <li>• Coursework               <ul style="list-style-type: none"> <li>○ Idea Conceptualisation</li> <li>○ Evaluation of Ideas (Chosen Idea)</li> </ul> </li> </ul>	- Ideation - Decision matrix for chosen idea	
<b>Week 10</b> [6 Mar – 10 Mar]	<ul style="list-style-type: none"> <li>• Coursework               <ul style="list-style-type: none"> <li>○ Development of Chosen Idea                   <ul style="list-style-type: none"> <li>- Forms &amp; Functions</li> <li>- Critical Dimensions and Sizing</li> <li>- Anthropometry &amp; Ergonomics</li> </ul> </li> </ul> </li> </ul>	- Exploration of Forms & Functions - Critical dimensions & sizing - Anthropometry & Ergonomics considerations	-
<b>Term 2 [20 Mar – 26 May]</b>			
<b>Week</b>	<b>Chapter/Topic/Skill/Area</b>	<b>Assignment/ Homework</b>	<b>Weighted Assessment</b>
<b>Week 1</b> [20 Mar – 24 Mar]  <i>HBL B, 22 Mar (Wed)</i>	<ul style="list-style-type: none"> <li>• Coursework               <ul style="list-style-type: none"> <li>○ Development of Chosen Idea                   <ul style="list-style-type: none"> <li>- Forms &amp; Functions</li> <li>- Critical Dimensions and Sizing</li> <li>- Anthropometry &amp; Ergonomics</li> </ul> </li> </ul> </li> <li>• HBL assignment               <ul style="list-style-type: none"> <li>○ Theory revision on Design Process / Electronics</li> <li>○ Continuation of coursework assignment</li> </ul> </li> </ul>	- Exploration of Forms & Functions - Critical dimensions & sizing - Anthropometry & Ergonomics considerations	-
<b>Week 2</b> [27 Mar – 31 Mar]	<ul style="list-style-type: none"> <li>• Coursework               <ul style="list-style-type: none"> <li>○ Mock-ups</li> <li>○ Testing &amp; Evaluation of Mock-ups</li> </ul> </li> </ul>	- Mock-ups making - Testing & Evaluation of mock-ups	-
<b>Week 3</b> [3 Apr – 7 Apr]  <i>HBL C, 5 Apr (Wed) Good Friday, 7 Apr</i>	<ul style="list-style-type: none"> <li>• Coursework               <ul style="list-style-type: none"> <li>○ Mock-ups</li> <li>○ Testing &amp; Evaluation of Mock-ups</li> </ul> </li> <li>• HBL assignment               <ul style="list-style-type: none"> <li>○ Theory revision on Design Process / Structures</li> <li>○ Continuation of coursework assignment</li> </ul> </li> </ul>	- Mock-ups making - Testing & Evaluation of mock-ups	-

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<p><b>Week 4</b> [10 Apr – 14 Apr]</p>	<ul style="list-style-type: none"> <li>• Coursework           <ul style="list-style-type: none"> <li>○ Development of Chosen Idea               <ul style="list-style-type: none"> <li>- Types of Technology (if applicable)</li> <li>- Choice of Materials</li> <li>- Colour Options</li> <li>- Methods of Construction &amp; Assembly</li> </ul> </li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>- Application of technology (if relevant)</li> <li>- Proposed materials choice</li> <li>- Proposed colour scheme</li> <li>- Methods of construction and assembly consideration</li> </ul>	<p style="text-align: center;">-</p>
<p><b>Week 5</b> [17 Apr – 21 Apr]</p> <p><i>Oral Prelims for S4/5 on 19 Apr (Wed)</i></p>	<ul style="list-style-type: none"> <li>• Coursework           <ul style="list-style-type: none"> <li>○ Details for Prototyping               <ul style="list-style-type: none"> <li>- Working drawings</li> </ul> </li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>- Parts drawing</li> <li>- Orthographic Projection</li> <li>- Exploded view</li> </ul>	<p style="text-align: center;">-</p>
<p><b>Week 6</b> [24 Apr – 28 Apr]</p> <p><i>WA2 (Part 1) on 26 Apr (Wed)</i></p> <p><i>Hari Raya Puasa, 24 Apr (Mon)</i></p>	<ul style="list-style-type: none"> <li>• Coursework           <ul style="list-style-type: none"> <li>○ Details for Prototyping               <ul style="list-style-type: none"> <li>- Material List</li> <li>- Presentation drawing</li> </ul> </li> </ul> </li> <li>• <b>WA2 Written Test</b></li> </ul>	<ul style="list-style-type: none"> <li>- Material List</li> <li>- Presentation Drawing</li> </ul>	<p>WA2 – Written Test <u>Topics:</u> Design Process, Mechanisms, Electronics, Structures</p>
<p><b>Week 7</b> [1 May – 5 May]</p> <p><i>Labour Day, 1 May (Mon)</i></p> <p><i>Oral Prelims for S4/5 on 3 May (Wed)</i></p>	<ul style="list-style-type: none"> <li>• Error Analysis WA2 Written Paper</li> <li>• Coursework           <ul style="list-style-type: none"> <li>○ Details for Prototyping               <ul style="list-style-type: none"> <li>- Material List</li> <li>- Presentation drawing</li> </ul> </li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>- Material List</li> <li>- Presentation Drawing</li> </ul>	<p style="text-align: center;">-</p>
<p><b>Week 8</b> [8 May – 12 May]</p> <p><i>WA2 (Part 2) on 10 May (Wed)</i></p>	<ul style="list-style-type: none"> <li>• Coursework           <ul style="list-style-type: none"> <li>○ Production Planning</li> <li>○ Prototyping</li> </ul> </li> </ul> <p><i>* Students to bring along their aprons</i></p>	<ul style="list-style-type: none"> <li>- Production schedule</li> </ul>	<p style="text-align: center;">-</p>
<p><b>Week 9</b> [15 May – 19 May]</p> <p><i>HBL D, 17 May (Wed)</i></p>	<ul style="list-style-type: none"> <li>• Coursework           <ul style="list-style-type: none"> <li>○ Prototyping</li> </ul> </li> <li>• HBL assignment           <ul style="list-style-type: none"> <li>○ Theory revision on Mechanisms / Electronics</li> <li>○ Continuation of coursework assignment</li> </ul> </li> </ul> <p><i>* Students to bring along their aprons</i></p>	<ul style="list-style-type: none"> <li>- Prototype</li> </ul>	<p style="text-align: center;">-</p>

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<p style="text-align: center;"><b>Week 10</b> [22 May – 26 May]</p>	<ul style="list-style-type: none"> <li>• Coursework           <ul style="list-style-type: none"> <li>○ Prototyping</li> </ul> </li> </ul> <p><i>* Students to bring along their aprons</i></p>	<p>- Prototype</p>	<p style="text-align: center;">-</p>
<p style="text-align: center;"><b>June Holidays</b> Lesson Wk 1&amp;4 (TBC)</p>	<ul style="list-style-type: none"> <li>• Coursework           <ul style="list-style-type: none"> <li>○ Prototyping</li> <li>○ Evaluation of prototype</li> <li>○ Presentation Boards Update</li> </ul> </li> </ul> <p><i>* Students to bring along their aprons</i></p>	<p>- Prototype - Prototype evaluation - Presentation Boards</p>	<p style="text-align: center;">-</p>

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