

Peicai Secondary School  
Subject Overview for Semester 2 2023  
Design & Technology | Secondary 3 | Normal (Technical)

**1. Assessment Mode**

Students will be assessed through a written assessment and a Design Project (coursework) that requires demonstration of the learning outcomes across the content sections of Design and Technology. This assessment mode of the Design project (coursework) comprises the following components; namely a design journal, mock-ups, prototype and presentation board which will be carried out over a few weeks during curriculum time.

**2. Assessment Weightage**

Components	WA3 (15%)	End of Year (EOY) (55%)	
		Coursework (70%)	Written Paper (30%)
Deliverables	Written (Design Process and Mechanisms)	1-Design Journal 2-Presentation Board (Design Situation and Contextual Use of Product) 3-Mock Up 4-Final Prototype	<u>Total 50 Marks</u> <b>Question 1 to 3</b> (18 marks) Application of Design  <b>Question 4 to 5</b> (32 marks) Application of Technology - Electronics and Mechanisms
Work Timeline	<i>Not Applicable</i>	<i>Term 3 Week 1 - Term 4 Week 2</i>	
Submission Deadline	<i>*Written Paper (Wk 6/ 8- TBC)</i>	<i>Term 4 Week 2</i>	

**3. Weekly Work Schedule**

Term 3 [26 June – 01 Sept 2023]			
Week	Chapter/Topic/Skill/Area	Assignment/ Homework	Assessment
<b>Week 1</b> [26 Jun – 30 Jun]  <i>Hari Raya Haji, 29 Jun</i>	<ul style="list-style-type: none"> <li>Class Admin.</li> <li>Subject Overview for Semester 2</li> </ul> <p><b>Recap on design process</b></p>	Worksheet- design process	EOY (Design Journal)
	<ul style="list-style-type: none"> <li>Introduction of Design &amp; Make Project [Glue Gun Holder]: through Task sheet (with Rubrics)               <ul style="list-style-type: none"> <li>Design Process Model (5 stages)</li> <li>Gantt Chart</li> <li>Design need, design brief and design specifications</li> </ul> </li> <li>* Students to bring along their iPad</li> </ul>	<ul style="list-style-type: none"> <li>Gantt Chart</li> <li>Photo Analysis (5W1H)</li> <li>PIES analysis</li> <li>Stating of design need, design brief and design specifications</li> </ul>	
<b>Week 2</b> [3 Jul – 7 Jul] <i>Youth Day, 3 Jul</i>	OBS Camp		

Peicai Secondary School  
 Subject Overview for Semester 2 2023  
 Design & Technology | Secondary 3 | Normal (Technical)

<b>Term 3 [26 June – 01 Sept 2023]</b>			
<b>Week</b>	<b>Chapter/Topic/Skill/Area</b>	<b>Assignment/ Homework</b>	<b>Assessment</b>
<b>Week 3</b> [10 Jul – 14 Jul]  HBL	<ul style="list-style-type: none"> <li>• <b>Recap</b></li> <li>• Design process &amp; mechanism</li> </ul> <p><i>* Students to bring along their iPad</i></p>	<ul style="list-style-type: none"> <li>• <b>Worksheet-Structures</b></li> </ul> Study Guide Chp 7-Structures	
	<ul style="list-style-type: none"> <li>• Project [Glue Gun Holder]:</li> <li>• Research on Glue Gun Holder stands</li> <li>• Generating of ideas using <u>Shape borrowing</u> and SCAMPER ideation techniques</li> </ul>	Existing products of Glue Gun Holders  Study Guide Chp 3 Generating and Developing Ideas  <ul style="list-style-type: none"> <li>• Ideas #1-2 (using Shape borrowing)</li> </ul>	Coursework End-of-Year (Design Journal)
<b>Week 4</b> [17 Jul – 21 Jul]	<ul style="list-style-type: none"> <li>• Project [Glue Gun Holder]:               <ul style="list-style-type: none"> <li>○ Research on Glue Gun Holder stands</li> <li>○ Generating of ideas using Shape borrowing and SCAMPER ideation techniques</li> </ul> </li> </ul> <p><i>* Students to bring along their iPad</i></p>	<ul style="list-style-type: none"> <li>• Ideas #3-4 (using SCAMPER technique)</li> </ul>	Coursework End-of-Year (Design Journal)
<b>Week 5</b> [24 Jul – 28 Jul]	<ul style="list-style-type: none"> <li>• Project [Glue Gun Holder]:               <ul style="list-style-type: none"> <li>○ Decision Matrix (Idea Selection)</li> <li>○ Development of chosen idea</li> <li>○ Working out details for prototyping</li> </ul> </li> </ul> <p><i>* Students to bring along their iPad</i></p>	<ul style="list-style-type: none"> <li>• Work out dimensions of final idea</li> <li>• Materials list</li> </ul>	Coursework End-of-Year (Design Journal)  [Ideas #1-#4 assignment]
<b>Week 6</b> [31 Jul – 4 Aug]  WA3	Project [ Glue Gun Holder ]: <ul style="list-style-type: none"> <li>○ Building mock-ups for designing</li> </ul> <p><i>* Students to bring along their aprons</i></p>	<ul style="list-style-type: none"> <li>• Mock-ups making and evaluation</li> </ul>	

Peicai Secondary School  
 Subject Overview for Semester 2 2023  
 Design & Technology | Secondary 3 | Normal (Technical)

<b>Term 3 [26 June – 01 Sept 2023]</b>			
<b>Week</b>	<b>Chapter/Topic/Skill/Area</b>	<b>Assignment/ Homework</b>	<b>Assessment</b>
<b>Week 7</b> [7 Aug – 11 Aug]	<ul style="list-style-type: none"> <li>• Project [ Glue Gun Holder]:               <ul style="list-style-type: none"> <li>○ Building mock-ups for designing</li> <li>○ Planning the steps for prototyping</li> </ul> </li> </ul> <p><i>* Students to bring along their iPad</i></p>	<ul style="list-style-type: none"> <li>• Mock-ups making and evaluation. Planning prototyping steps</li> </ul>	
<b>Week 8</b> [14 Aug – 18 Aug] <i>National Day Celebration, 8 Aug</i> <i>National Day, 9 Aug</i> <i>National Day Sch Holiday, 10 Aug</i> <b>WA3</b>	<ul style="list-style-type: none"> <li>• Project [ Glue Gun Holder ]:               <ul style="list-style-type: none"> <li>○ Making of prototype*</li> </ul> </li> <li>• <i>* Students to bring along their aprons</i></li> </ul> <p style="text-align: center;"><b>WEIGHTED ASSESSMENT 3</b>  <b>Topics tested:</b>  <b>Design Process and Mechanisms</b></p>	<ul style="list-style-type: none"> <li>• Prototyping</li> </ul>	WA3
<b>Week 9</b> [21 Aug – 25 Aug]	<ul style="list-style-type: none"> <li>• Project [ Glue Gun Holder ]:               <ul style="list-style-type: none"> <li>○ Making of prototype*</li> </ul> </li> </ul> <p><i>* Students to bring along their aprons</i></p>	<ul style="list-style-type: none"> <li>• Prototyping</li> </ul>	
<b>Week 10</b> [28 Aug – 1 Sep] <i>Teachers' Day Celebration, 31 Aug</i> <i>Teachers' Day, 1 Sep</i>	<ul style="list-style-type: none"> <li>• Project [ Glue Gun Holder ]:               <ul style="list-style-type: none"> <li>○ Making of prototype*</li> <li>○ Testing of Prototype</li> </ul> </li> </ul> <p><i>* Students to bring along their aprons</i></p>	<ul style="list-style-type: none"> <li>• Prototyping</li> <li>• Testing of Prototype</li> </ul>	Coursework End-of-Year (Design Journal) <i>[mock-up, final prototype]</i>

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

Peicai Secondary School  
 Subject Overview for Semester 2 2023  
 Design & Technology | Secondary 3 | Normal (Technical)

<b>Term 4 [11 Sep – 27 Oct]</b>			
<b>Week</b>	<b>Chapter/Topic/Skill/Area</b>	<b>Assignment/ Homework</b>	<b>Assessment</b>
<b>Week 1</b> [11 Sep – 15 Sep]	<ul style="list-style-type: none"> <li>Project [Glue Gun Holder]:               <ul style="list-style-type: none"> <li>3D sketch and rendering of developed idea (using iPad Sketchbook *)</li> </ul> </li> </ul> <p><i>* Students to bring along their iPad</i></p>	Presentation Board 1 (Problem situation, Design Brief and Specifications) with Rendered sketch of developed idea	Coursework End-of-Year (Design Journal) [Rendered sketch of developed idea] 2 Presentation Boards (online)
<b>Week 2</b> [18 Sep – 22 Sep]	<ul style="list-style-type: none"> <li>Project [Glue Gun Holder]:               <ul style="list-style-type: none"> <li>3D sketch and rendering of developed idea (using iPad Sketchbook *)</li> </ul> </li> </ul> <p><i>* Students to bring along their iPad</i></p>	<ul style="list-style-type: none"> <li>Presentation Board 2 (Contextual Use of Design with Use in Environment)</li> </ul>	
<b>Week 3</b> [25 Sep – 29 Sep]	<ul style="list-style-type: none"> <li>Revision of topics for Exam Design Process &amp; Technologies in D&amp;T (Electronics, Mechanisms and Structures)</li> </ul>	<ul style="list-style-type: none"> <li>Lesson activity-Revision Guide</li> </ul>	
<b>Week 4</b> [2 Oct – 6 Oct]	END OF YEAR EXAMS		
<b>Week 5</b> [9 Oct – 13 Oct]	END OF YEAR EXAMS		
<b>Week 6</b> [16 Oct – 20 Oct]	Error Analysis Week/ Script Check		

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

Peicai Secondary School  
Subject Overview for Semester 2 2023  
Design & Technology | Secondary 3 | Normal (Technical)

*Assessment Rubrics for Coursework*

*Normal (Technical)*

Source: [https://www.seab.gov.sg/docs/default-source/national-examinations/syllabus/nlevel/2023syllabus/7062\\_y23\\_sy.pdf](https://www.seab.gov.sg/docs/default-source/national-examinations/syllabus/nlevel/2023syllabus/7062_y23_sy.pdf)