

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

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 Monday timetable</i> <i>CNY celebrations, 20 Jan (Fri)</i>	<ul style="list-style-type: none"> • Class Admin. <ul style="list-style-type: none"> ○ National Exam coursework syllabus briefing ○ Release of Coursework QP ○ Project theme analysis • Start of Coursework <ul style="list-style-type: none"> ○ Overall Project Planning ○ Analysis of theme 	<ul style="list-style-type: none"> • Gantt chart • Theme definition, • Mood board • Practice paper(focus on design process) 	-
Week 4 [23 Jan – 27 Jan] <i>CNY, 23 Jan (Mon) & 24 Jan (Tue)</i>	<ul style="list-style-type: none"> • Coursework <ul style="list-style-type: none"> ○ Analysis of theme ○ Needs Analysis • Theory <ul style="list-style-type: none"> • Design Process 	<ul style="list-style-type: none"> • Mindmap • Identification of problem situations • Practice paper(focus on design process) 	-
Week 5 [30 Jan – 3 Feb] <i>HBL A, 1 Feb (Wed)</i>	<ul style="list-style-type: none"> • Coursework <ul style="list-style-type: none"> ○ Needs Analysis ○ Selection of Chosen Situation ○ Continuation of coursework assignments • HBL assignment <ul style="list-style-type: none"> ○ Theory revision on Design Process / Mechanisms 	<ul style="list-style-type: none"> • Identification of problem situations • Decision matrix for chosen problem situation • HBL revision package 	-
Week 6 [6 Feb – 10 Feb]	<ul style="list-style-type: none"> • Coursework <ul style="list-style-type: none"> • Research on Chosen Situation <ul style="list-style-type: none"> - Existing Products - Survey and Survey Results, • Theory: Design process/mechanism <ul style="list-style-type: none"> - Practice paper 	<ul style="list-style-type: none"> • Existing products analysis • Survey and survey results summary 	-
Week 7 [13 Feb – 17 Feb] <i>WA1 (Part 1) on 15 Feb (Wed)</i>	<ul style="list-style-type: none"> • Coursework <ul style="list-style-type: none"> • Research on Chosen Situation <ul style="list-style-type: none"> - Target User - Environment ○ Design Brief ○ Design Considerations & Constraints ○ Design Specifications Theory: Design process/ Mechanism/structure (time practice) 	<ul style="list-style-type: none"> • User & Environment analysis • Stating of design brief • Identify design considerations & constraints • Stating of design specs. 	

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Week 8 [20 Feb – 24 Feb]	<ul style="list-style-type: none"> • Coursework <ul style="list-style-type: none"> • Idea Conceptualisation • Theory <ul style="list-style-type: none"> • Review of time practice paper 	<ul style="list-style-type: none"> • Ideation 	-
Week 9 [27 Feb – 3 Mar] <i>WA1 (Part 2) on 1 Mar (Wed)</i>	<ul style="list-style-type: none"> • WA1 Written Test • Coursework <ul style="list-style-type: none"> • Idea Conceptualisation • Evaluation of Ideas (Chosen Idea) 	<ul style="list-style-type: none"> • Ideation • Decision matrix for chosen idea 	WA1 – Written Test <u>Topics:</u> Design Process, Mechanisms, Electronics
Week 10 [6 Mar – 10 Mar]	<ul style="list-style-type: none"> • Theory: Error Analysis WA1 Written Paper • Coursework <ul style="list-style-type: none"> • Development of Chosen Idea <ul style="list-style-type: none"> - Forms & Functions - Critical Dimensions and Sizing - Anthropometry & Ergonomics 	<ul style="list-style-type: none"> • Exploration of Forms & Functions • Critical dimensions & sizing • Anthropometry & Ergonomics considerations 	-

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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 B, 22 Mar (Wed)</i>	<ul style="list-style-type: none"> • Coursework <ul style="list-style-type: none"> • Development of Chosen Idea <ul style="list-style-type: none"> - Forms & Functions - Critical Dimensions and Sizing - Anthropometry & Ergonomics • Continuation of coursework assignment • HBL assignment <ul style="list-style-type: none"> ○ Theory revision on Design Process / Electronics 	<ul style="list-style-type: none"> • Exploration of Forms & Functions • Critical dimensions & sizing • Anthropometry & Ergonomics considerations 	-
Week 2 [27 Mar – 31 Mar]	<ul style="list-style-type: none"> • Coursework <ul style="list-style-type: none"> ○ Mock-ups ○ Testing & Evaluation of Mock-ups • Theory: Review HBL work 	<ul style="list-style-type: none"> • Mock-ups making • Testing & Evaluation of mock-ups 	-
Week 3 [3 Apr – 7 Apr] <i>HBL C, 5 Apr (Wed)</i> <i>Good Friday, 7 Apr</i>	<ul style="list-style-type: none"> • Coursework <ul style="list-style-type: none"> ○ Mock-ups ○ Testing & Evaluation of Mock-ups • HBL assignment <ul style="list-style-type: none"> ○ Theory revision on Design Process / Structures ○ Continuation of coursework assignment 	<ul style="list-style-type: none"> • Mock-ups making • Testing & Evaluation of mock-ups 	-
Week 4 [10 Apr – 14 Apr]	<ul style="list-style-type: none"> • Coursework <ul style="list-style-type: none"> • Development of Chosen Idea <ul style="list-style-type: none"> - Types of Technology (if applicable) - Choice of Materials - Colour Options - Methods of Construction & Assembly • Theory: Time practice + HBL review 	<ul style="list-style-type: none"> • Application of technology (if relevant) • Proposed materials choice • Proposed colour scheme • Methods of construction and assembly consideration 	-
Week 5 [17 Apr – 21 Apr] <i>Oral Prelims for S4/5 on 19 Apr (Wed)</i>	<ul style="list-style-type: none"> • Coursework <ul style="list-style-type: none"> • Details for Prototyping <ul style="list-style-type: none"> - Working drawings • Theory: Time Practice 	<ul style="list-style-type: none"> • Parts drawing • Orthographic Projection • Exploded view 	-

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Term 2 [20 Mar – 26 May]			
Week	Chapter/Topic/Skill/Area	Assignment/ Homework	Assessment
Week 6 [24 Apr – 28 Apr] WA2 (Part 1) on 26 Apr (Wed) Hari Raya Puasa, 24 Apr (Mon)	<ul style="list-style-type: none"> • Coursework <ul style="list-style-type: none"> - Details for Prototyping - Material List - Presentation drawing • Theory: Full paper 	<ul style="list-style-type: none"> • Material List • Presentation Drawing 	-
Week 7 [1 May – 5 May] Labour Day, 1 May (Mon) Oral Prelims for S4/5 on 3 May (Wed)	<ul style="list-style-type: none"> • Coursework <ul style="list-style-type: none"> - Details for Prototyping - Material List - Presentation drawing 	<ul style="list-style-type: none"> • Material List • Presentation Drawing 	-
Week 8 [8 May – 12 May] WA2 (Part 2) on 10 May (Wed)	<ul style="list-style-type: none"> • Theory: WA2 Written Test • Coursework <ul style="list-style-type: none"> • Production Planning • Prototyping <p><i>* Students to bring along their aprons</i></p>	<ul style="list-style-type: none"> • Production schedule 	WA2 – Written Test <u>Topics:</u> Design Process, Mechanisms, Electronics, Structures
Week 9 [15 May – 19 May] HBL D, 17 May (Wed)	<ul style="list-style-type: none"> • Error Analysis WA2 Written Paper • Coursework <ul style="list-style-type: none"> • Prototyping • HBL assignment • Theory revision on Mechanisms / Electronics • Continuation of coursework assignment <p><i>* Students to bring along their aprons</i></p>	- Prototype	-
Week 10 [22 May – 26 May]	<ul style="list-style-type: none"> • Error Analysis WA2 Written Paper • Coursework <ul style="list-style-type: none"> • Prototyping • Theory: Review of HBL <p><i>* Students to bring along their aprons</i></p>	- Prototype	-
June Holidays Lesson Wk 4 (TBC)	<ul style="list-style-type: none"> • Coursework <ul style="list-style-type: none"> • Prototyping • Evaluation of prototype • Presentation Boards Update <p><i>* Students to bring along their aprons</i></p>	<ul style="list-style-type: none"> - Prototype - Prototype evaluation - Presentation Boards 	-

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