

The Curriculum and Approaches to Learning		Key Programmes / Competitions
At Secondary 4 & 5, the curriculum is mainly application of what students have learned in the past three years, through a theory paper (Paper 1) and a Design Project coursework (Paper 2).		<u>Enrichment</u> <ul style="list-style-type: none"> - D&T Pupil Seminar - EAE portfolio workshop <u>Competitions</u> <ul style="list-style-type: none"> - MOE D&T Awards - Tan Kah Kee Young Inventors Award
Term	Learning Experiences (chapter, activity)	Learning Outcomes & Assessment
1	Seeking Design Opportunities <ul style="list-style-type: none"> - Research skills - Research analysis skills (using PIES, PMI and an empathetic heart) - Making conclusion from research - Generating the design brief and design specifications 	<u>Learning Outcomes</u> <ul style="list-style-type: none"> - Producing a thoughtful design need based on relevant research <u>Weighted Assessment 1</u> <ul style="list-style-type: none"> - Theory paper - Design Project Coursework (via regular feedback)
2	Idea Conceptualisation and Development <ul style="list-style-type: none"> - Creativity skills (use of SCAMPER, Shape borrowing and other techniques) - Using sketches and annotations to communicate thinking - Decision making / evaluation techniques <p>Note: The design process is iterative and not linear. As such, the timeline is only indicative of the general process flow.</p>	<u>Learning Outcomes</u> <ul style="list-style-type: none"> - Developing the design solution thoroughly and thoughtfully <u>Semestral Assessment</u> <ul style="list-style-type: none"> - Theory paper - Design Project Coursework (via regular feedback)
3	Production Planning / Making <ul style="list-style-type: none"> - Applying basic working drawing skills - Applying making skills in any/all of the three resistant materials (wood, metal, plastic) <p>Throughout the Design Project coursework duration, students will plan and monitor their own progress through the use of a Gantt Chart, flow chart, sub-plans, and reflections.</p>	<u>Learning Outcomes</u> <ul style="list-style-type: none"> - Producing a prototype that meets the defined intent <u>Preliminary Examination</u> <ul style="list-style-type: none"> - Theory paper - Design Project Coursework (summative marking of the entire coursework)
4	Content Revision <p>(content revision will also be done once a fortnight throughout the coursework duration through weekend assignment and feedback given at the following lesson)</p>	<u>Learning Outcomes</u> <ul style="list-style-type: none"> - Students to be prepared for full written exam theory paper (Paper 1)