

## Varsity College Year 9 Engineering – Semester 2, 2024

Week	Date	Topics	Assessment
1	8-12 July Athletics Carnival - Wed	Exploring the design problem – co2 introduction and Newton's Laws of Motion	
2	15-19 July	Exploring the design problem – drag, mass and friction	
3	22-26 July GC24 - Thursday	<ul> <li>Exploring the design problem – design envelope, Gantt</li> <li>chart, success criteria and materials investigation</li> </ul>	
4	29 Jul- 2 Aug	● Develop ideas – existing designs, PMIs and sketching	
5	5-9 August	● Develop ideas – existing designs, PMIs and sketching	
6	12-16 August GC24 Finals – Wed.	Develop ideas – Solid Edge modelling (individual)	
7	19-23 August	Develop ideas – Solid Edge modelling (individual)     Exam revision	Exam Lesson 3
8	26-30 August	Develop ideas – Solid Edge modelling (individual)	
9	2-6 September	<ul> <li>Develop ideas – virtual prototyping (virtual wind tunnel)</li> <li>and redesign</li> </ul>	
10	9-13 September	<ul> <li>Develop ideas – virtual prototyping (virtual wind tunnel),</li> <li>redesign and compare/contrast to partner's design</li> </ul>	
	School h	olidays: Saturday September 14 – Sunday Septemb	er 29
1	30 Sept – 4 Oct	Develop ideas – virtual prototyping (virtual wind tunnel)     and compare/contrast to partner's design	er 29
1 2		Develop ideas – virtual prototyping (virtual wind tunnel)	er 29
	30 Sept – 4 Oct 7-11 October	Develop ideas – virtual prototyping (virtual wind tunnel)     and compare/contrast to partner's design	er 29
2	30 Sept – 4 Oct  7-11 October  King's B'day PH - Monday	Develop ideas – virtual prototyping (virtual wind tunnel)     and compare/contrast to partner's design     Generate – manufacture and assemble car	er 29
2	30 Sept – 4 Oct  7-11 October King's B'day PH - Monday 14-18 October	Develop ideas – virtual prototyping (virtual wind tunnel)     and compare/contrast to partner's design     Generate – manufacture and assemble car     Generate – manufacture and assemble car     Generate – prototyping (actual wind tunnel and smoke	Draft
2 3 4	30 Sept – 4 Oct  7-11 October King's B'day PH - Monday  14-18 October  21 - 25 October	Develop ideas – virtual prototyping (virtual wind tunnel)     and compare/contrast to partner's design     Generate – manufacture and assemble car     Generate – manufacture and assemble car     Generate – prototyping (actual wind tunnel and smoke tunnel)     Generate – working drawings, hypothesis and pre-testing	
2 3 4 5	30 Sept – 4 Oct  7-11 October King's B'day PH - Monday  14-18 October  21 - 25 October  28 Oct – 1 Nov	Develop ideas – virtual prototyping (virtual wind tunnel)     and compare/contrast to partner's design     Generate – manufacture and assemble car     Generate – manufacture and assemble car     Generate – prototyping (actual wind tunnel and smoke tunnel)     Generate – working drawings, hypothesis and pre-testing calculations     Generate – working drawings, hypothesis and pre-testing	
2 3 4 5	30 Sept – 4 Oct  7-11 October King's B'day PH - Monday  14-18 October  21 - 25 October  28 Oct – 1 Nov  4-8 November	Develop ideas – virtual prototyping (virtual wind tunnel) and compare/contrast to partner's design  Generate – manufacture and assemble car Generate – manufacture and assemble car Generate – prototyping (actual wind tunnel and smoke tunnel) Generate – working drawings, hypothesis and pre-testing calculations Generate – working drawings, hypothesis and pre-testing calculations	
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2 3 4 5 6 7 8	30 Sept – 4 Oct  7-11 October King's B'day PH - Monday  14-18 October  21 - 25 October  28 Oct – 1 Nov  4-8 November  11-15 November  18-22 November	Develop ideas – virtual prototyping (virtual wind tunnel)     and compare/contrast to partner's design     Generate – manufacture and assemble car     Generate – manufacture and assemble car     Generate – prototyping (actual wind tunnel and smoke tunnel)     Generate – working drawings, hypothesis and pre-testing calculations     Generate – working drawings, hypothesis and pre-testing calculations     Generate – working drawings, hypothesis and pre-testing calculations     Evaluation – analysis of final testing results     Evaluation – recommendations     Refine assessment	Draft Folio Due