



Week	Week beg	Unit	Practical	Theory	School events and public holidays	Assessment Type	Assessment Due Date
1	T14/7	Engineering Mechanics	CO2 Powered Car (Research and sketches)	Theory (Engineering Mechanics) <ul style="list-style-type: none"> • Frictional Forces • Coefficient of Friction • Frictional Forces on Inclined Planes 			
2	20/7		CO2 Powered Car (Research and sketches)	Theory (Engineering Mechanics) <ul style="list-style-type: none"> • Linear Motion • Velocity • Acceleration 			
3	27/7		CO2 Powered Car (Research and sketches)	Theory (Engineering Mechanics) <ul style="list-style-type: none"> • Displacement/Time Graphs • Forces and Motion • Newtons Laws 	29/7 Interhouse Athletics	DESIGN SKETCHES	Friday 31 July 09
4	3/8		CO2 Powered Car (Choose the best sketch)	Theory (Engineering Mechanics) <ul style="list-style-type: none"> • Impulse and Momentum • Revision 	4/8 Yr 10,11,12 Parent-Teacher Interviews	EXAM (Engineering Mechanics)	Wednesday 05 Aug 09
5	10/8	CATIA, CO2 Powered Car (Energy/ Transportation/ Environment/ Manufacturing)	CO2 Powered Car (Choose the best sketch)	Introduction to CATIA CATIA Booklet and Exercises	10/8 Class Photos (11&12) 11/8 Class Photos (8-10) 12/8 Exhibition holiday 13/8 Pupil-free day		
6	17/8		CO2 Powered Car (Choose the best sketch)	Part Design <ul style="list-style-type: none"> • Introduction to planes (XY, YZ, ZX) • Sketching • Work bench • PAD, Pocket, Shaft • Rib, Slot • Constraints • Thick • Drafted Fillet, MultiPAD, Draft filleted pocket, Multi Pocket 			
7	24/8		CO2 Powered Car (How to manipulate balsa)	Assembly Design <ul style="list-style-type: none"> • Add component • Multiple components • Mechanical Design • Shape • Design the REA CO2 Powered CAR 	27/8 Co-curricular photo day - no assessment		

8	31/8		CO2 Powered Car (How to manipulate balsa)	Design your own CO2 Powered CAR <ul style="list-style-type: none"> • Introduction • Design Principles (Aerodynamics, Rolling Resistance, Wind Drag) • Final Design 	1/9, 2/9 QCST	Draft CO2 Powered Car Assignment (Investigation + Design Ideas)	Friday 04 Sep 09
9	7/9	Milling CAD/CAM CO2 Powered Car (Manufacture/ Control)	Milling CO2 Powered CAR <ul style="list-style-type: none"> • Machine set up • Milling Techniques 	Design your own CO2 Powered CAR <ul style="list-style-type: none"> • Investigation • Final Product • Prepare for Milling 	8/9 Yr 8 and 9 Parent-Teacher Interviews 9/9 Yr 12 block exams begin		
10	14/9		Milling CO2 Powered CAR <ul style="list-style-type: none"> • Machine set up • Milling Techniques 	Assignment (CO2 Powered CAR)	16/9 Year 12 block exams finish		
Mid Semester Vacation							
1 (11)	5/10		Finishing CO2 Powered CAR <ul style="list-style-type: none"> • Sanding • Painting • Race Stickers 	Assignment (CO2 Powered CAR)	No assessment permitted		
2 (12)	12/10	Race Week	Race Track Set Up	Assignment (CO2 Powered CAR)	13/10 Immunisations 15/10 QCAT testing (½ day)	Race Week	
3 (13)	20/10	Engineering Materials		Theory (Engineering Materials) <ul style="list-style-type: none"> • Casting and Cast Structures • Shell Moulding • Investment Casting • Die Casting • Centrifugal Casting 	19/10 Pupil-free day 22/10 Yr 9 QCAT testing (½ day) 23/10 Co-curricular photo day – no assessment		
4 (14)	26/10			Theory (Engineering Materials) <ul style="list-style-type: none"> • The Cooling and Solidification of Molten Metal • Grain Boundaries and Cooling rates • Deformation of Crystalline Materials • Elastic/Plastic Deformation • Work Hardening • Deformation by Creep 	29/10 Yr 9 QCAT testing (½ day)	CO2 Powered CAR Assignment	Friday 30 OCT 09
5 (15)	2/11			Theory (Engineering Materials) <ul style="list-style-type: none"> • Methods of Forming and Working Metals • Cold Working • Powdered Metallurgy 		EXAM (Engineering Materials)	Wednesday 4 NOV 09
6 (16)	9/11	YEAR 11 BLOCK EXAMS			10/11 Yr 12 Block exams begin		
7 (17)	16/11				16/11 Yr 11 block exams begin 18/11 Yr 12 blocks finish 20/11 Graduation 20/11 Last day for assessment Year 10		