## **CURRICULUM OVERVIEW 2018-19**



## Design & Technology Year 7



## **Curriculum Overview 2018-19**

Year group: 7

Subject Design and Technology

Term	Topics studied	Extended learning opportunities	How parents could
	Add dates and any assessments included	(homework, controlled assessments, field work, trips etc.)	support students
Autumn Term	1. Monster Project with Electronic circuit introduction  2. Design Process, Market research and design ideas  3. Health and safety talk and mind map  5. Design a monster title page and monster related words mind map.  6. Using market research to draw out 4 designs that have detailed features, coloured and annotated.  7. Draw a final design  8. Build your wooden monster body head, cam and base and paint on your design	1. 6 Pictures of Monsters— Need to annotate each picture.  2. Health and Safety in the Workshop Poster.  3. Descriptive words bank for monsters  4. Manufactured, softwood and hardwood research	Help to assist students with researching and printing all of the extended learning tasks.
Spring Term	<ol> <li>9. Using a soldering iron</li> <li>10. Building the practice circuit board</li> <li>11. Building your circuit onto your wooden monster to</li> <li>12. Advancing to the more intricate circuit with a variable resistor.</li> <li>13. Testing the circuit and making Improvements to the design.</li> <li>14. Identify Tools and machinery used to build the monster project.</li> <li>15. Write a step by step production plan</li> <li>16. Self and Peer assessments of students work.</li> <li>17. Evaluate the product on what went well, and even better if.</li> </ol>	<ul> <li>5. Using a soldering safely</li> <li>6. Resistors</li> <li>7. Light emitting diode, L.E.D</li> <li>8. Micro-switch</li> <li>9. Electronic components and Symbols function table</li> </ul>	Help to assist students with researching and printing all of the extended learning tasks.

Summer Term	STEM Rocket car project overview and videos from Dendrite.	1. Research on existing Rocket Cars	Help to assist students with researching and printing all of
	videos from Bendrice.	2. Research on Aerodynamics	the extended learning tasks.
	2. Presentation on examples of speed,		
	light, sound and bloodhound	3. Research on Rocket car materials	
	3. Students will cover Aerodynamics,	4. Research on forces caused by pulling and	
	Forces, friction, speed calculations	pushing from the interaction between two objects.	
	4. Design 4 accurate 1:1 scale drawings of		
	The Rocket Car 300 x 75mm Font and side view, using a drawing board and	5. Research on Hot wire safety	
	drawing equipment.	6. Step by step guide on how the students made the car.	
	5. Demo on using a Hot wire cutter		
	6. Make a prototype car out of Styrofoam, Test and evaluate		
	7. Make a Rocket car, sand and paint		
	8. Fit axles and Wheels		
	9. Test Rocket cars and evaluate		

10. The big race on the MUGA.