|  |  |
| --- | --- |
| Subject Area : Design & Technology | |
| Year Group : 7 | Unit of Work : Race For The Line |
| Half Term :  1, 2 and 3  17 weeks | Skills :   * + - Understanding the function of packaging     - Understand package suitability     - Discover the key to aerodynamics     - Demonstrate their design skills     - Develop their team building skills by working in groups     - Discover what constraints are and how as designers you will work with them     - Demonstrate their ability to work as a team and make decisions based on a shared goal     - Develop their ICT skills by using 2D design to create a profile stencil for their race car     - Discover the importance of reducing friction     - Demonstrate their practical skills by beginning to form their Styrofoam blocks     - Develop their design skills by designing wheels for their race car using 2D design     - Discover what an axle is and what function it has in their race car     - Demonstrate their ability to work as a team     - Develop their understanding of 3D CAM     - Discover how efficient their race car, wheels and axles are by carrying out a test race     - Demonstrate their learning by identifying areas on their race car to improve race performance     - Develop their practical skills by designing or adding features to improve their race car     - Discover what aesthetic features can be used to give their teams’ race car a winning edge     - Demonstrate their design skills by creating aesthetic features for their race car     - Develop their creative skills by getting their team’s race car Race Day ready!     - Discover the importance of branding in motorsports     - Demonstrate your learning by creating a ‘brand DNA’ in your teams     - Develop your design skills by creating a logo design for your team     - Discover the importance of an identity to racing car drivers in motorsports     - Demonstrate your understanding of the properties of various textiles used in protective wear     - Develop your design skills by creating a drivers’ uniform which incorporates the various smart/protective textiles and carries the teams’ brand DNA     - Discover how keyrings are manufactured on mass in industry     - Demonstrate your design skills by creating x6 design ideas for a Team Keyring     - Develop your ability to work as a team by selecting a final design     - Discover the properties of Acrylic     - Demonstrate 2D Design skills by creating decal designs     - Develop your understanding of 3D CAM by using the CNC Laser     - Discover the use of decals in F1 racing     - Demonstrate 2D Design skills by creating decal designs     - Develop your understanding of 3D CAM by using the CNC Plotter     - Discover how important some graphic products can be to advertise various sporting events     - Demonstrate your understanding of key graphic principles     - Develop your design skills by creating a Race Day poster for your team |
| Reasons behind order of topic in this half term | |
| * Pupils complete a short unit of work based on the function of packaging. This work is revised to complete a baseline test at the start of the year. * Pupils develop design skills and group work within the ‘Race for the Line’. The pupils then move onto the properties of modelling materials. | |

|  |  |
| --- | --- |
| Subject Area : Design & Technology | |
| Year Group : 7 | Unit of Work : Cotton Cushion Cover |
| Half Term :  4, 5 and 6  18 weeks | Skills :   * To understand the design and make task * To discuss the importance of health and safety in the textiles room * To locate the parts of the sewing machine * To understand the term and method of resist dye * To produce an interesting tie dye * To understand how to gather relevant research * To create design block print ideas * To refer to your mood board for inspiration * To describe your design ideas through annotation * To learn how to produce a double turned hem * To demonstrate safe use of the tools and equipment * To create a neoprene block * To understand how to block print * To produce an accurate repeat block print * To demonstrate how to produce a double turned hem * To produce a double turned hem * To demonstrate safe use of the tools and equipment * To create a final design * To construct cushion cover * To produce an envelope back panel using the sewing machine * To develop knowledge on cotton and fibres * To demonstrate accurate machine sewing * Learn how to evaluate a finished product |
| Reasons behind order of topic in this half term | |
| * Pupils have gained an understanding of design. Pupils have the confidence to use ACCESSFM to design and construct their own product. Pupils have a better understanding of material properties. | |