|  | **Topic** | **Key concept – what do I want the students to learn from this unit?** | **What knowledge will they acquire?** |
| --- | --- | --- | --- |
|  **YEAR 7 OVERVIEW – carousel so students may carry out activities in different order** |
| **Y7 - half term 1** | Design communication(all areas of DT and Engineering) | * Presentation of design work
* Techniques to enhance creativity
* Producing initial design ideas
* Development of design ideas
* Avoiding design fixation
 | * Jack straws
* Scruffity
* Line work
* SCARED and SCAMPER
* Biomimicry
* rendering
 |
| **Y7 – half term 2** | Structures, metals and forces(Design Technology) | * Properties and working with metal
* working with plastic
* Forces and structures
* Working with specialist tools/equip
* Safety in the workshop
 | * 4 forces in structures
* Types of structure
* Computer simulation
* Workshop skills (wood)
* Safety in a workshop
* Types of metals
* Working with metals
* Line bending
* Joining plastic
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| **Y7 – half term 3** | Textiles(Design Technology) | * Properties and working with textiles
* Working with specialist tools/equip
* Safety in the workshop
* Tie dying fabric
* Measuring and cutting out
* Applying surface decoration techniques
* Using a variety of hand sewing and machine skills
* Creativity
* The ability to evaluate and test a product
 | * Properties and working with textiles
* Working with specialist tools/equip
* Safety in the workshop
* Tie dying fabric
* Measuring and cutting out
* Applying surface decoration techniques
* Using a variety of hand sewing and machine skills
* Creativity
* The ability to evaluate and test a product
 |
| **Y7 – half term 4** | Tangler project(Engineering design) | * Analyse existing products
* Properties and working with plastics
* Working with specialist tools/equip
* CAD and CAM
* Creativity
* Prototyping
* Safety in the workshop
* Design development
 | * Designing without fixation
* Prototyping to meet users needs
* Properties and molecular structure of plastics
* Vacuum forming
* Laser cutter
 |
| **Y7 – half term 5** | Sustainability(Design Technology) | * What is sustainability ,
* Understanding the 6 R’s
* What we need to do to make the environment better
* Creativity
* Design
* Thinking skills
* Solving a problem
* Melting plastic to create a storage item for school
* to evaluate and improve work
 | * Designing without fixation
* What is sustainability ,
* Understanding the 6 R’s
* What we need to do to make the environment better
* Creativity
* Design
* Thinking skills
* Solving a problem
* Melting plastic to create a
* storage item for school
* to evaluate and improve work
 |
| **Y7 – half term 6** | Food and Nutrition | * Basic food hygiene rules.
* Safety rules.
* Bridge and claw technique.
* Rubbing in method
* Fry, sauté, boil, simmer & bake.
* Safe use of the cooker.
* How to reflect and evaluate a practical
* Eat well guide.
 | * Safe food preparation
* Range of cooking skills
* Evaluation, reflection and analysis
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