

WHAT ARE THE BIG AIMS OF YEAR 9 D&T?

To continue to build on the aims of Year 7 and 8 plus:

- For pupils to understand that needs wants and values of people differs across different cultures and societal groups
- For pupils to be able to investigate an unfamiliar context identifying a number of possible areas for D&T activity
- Design ideas begin to indicate the conflict and compromise inherent in the process
- Pupils understand that choice of materials has economic, ethical and environmental consequences
- Pupils are able to select and justify/evaluate the use a range of appropriate tools and equipment
- Evaluative skills are employed throughout every stage of the design and make process

WHAT WILL EXCELLENCE LOOK LIKE IN YEAR 9?

- Pupils are able to analyse a given scenario and identify what problems/opportunities may arise
- They are able to formulate a range of design briefs and select the most suitable
- Design ideas are evaluated against the specification and user needs and include details of construction, assembly and finish
- Manufacturing plans follow a logical achievable sequence
- Pupils are increasingly skilled with a wider range of equipment and can justify a given process
- Every stage of the design and make process is accompanied by an evaluative commentary

WHAT KNOWLEDGE DO THE PUPILS NEED TO ACQUIRE?

- Material sources, properties and the impact of using them
- Safe working practices for all D&T areas
- Calculating volume and cost of materials.using area of a circle
- Types and impact of energy production and storage
- Programming microcontrollers

WHAT SKILLS DO THE PUPILS NEED TO DEVELOP?

- Identifying problems and writing briefs in unfamiliar contexts
- Communicating design ideas using 2d and 3d techniques
- Synthesising design ideas that account for ethics and sustainability
- Appreciate that the definition of 'best idea' will be open to debate
- Selecting, safely and accurately using specialist tools and equipment
- Applying prototype tests to inform further developments

WHAT MISCONCEPTIONS MAY THEY HAVE FROM PREVIOUS LEARNING?

D&T is mainly concerned with making. Designing is the same as drawing. That material areas operate in isolation. Initial ideas can be rejected and forgotten. The financial cost of a product is the major factor in deciding its worth or value

WHAT ASSESSMENTS WILL BE USED ACROSS THE YEAR TO DEMONSTRATE HOW THE PUPILS HAVE ACQUIRED THE KNOWLEDGE AND DEVELOPED THE SKILLS?

An assessment of pupils' ability to identify a number of areas for D&T activity. Pupils' ability to write and with justification select the most appropriate design briefs. Specifications will be assessed on the extent to which they provide a useful framework for design activity and take account of the users' needs and values. Design annotation and evaluation are assessed to assess the extent to which pupils identify and consider ethical and sustainable factors relevant to the potential user. Pupils' ability to operate machines safely is assessed on a 1:1 basis. Evaluative work is assessed at all stages of the design and make process and should include critical and objective testing; responses to user feedback and identify the potential for further development.