

WHAT ARE THE BIG AIMS OF YEAR 8 D&T?

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

- For pupils to understand the difference between primary and secondary research and use these sources to inform design work
- Pupils understand the terms Market Pull, Technology Push and understand their impact on product development
- Pupils generate their own specifications
- Pupils can generate and communicate designs in direct response to user feedback
- Pupils are aware of forces and their impact on structures
- Pupils develop an understanding of simple mechanisms
- Pupils increasingly see the links between D&T, maths and science

WHAT WILL EXCELLENCE LOOK LIKE IN YEAR 8?

- Pupils can carry out research and can synthesise information from different sources eg internet searches and user interviews
- Specifications reflect research undertaken and serve as a framework for designing and evaluating ideas and prototypes
- Pupils can present design ideas with analysis, evaluation and recommendations
- Prototypes are made within a broad plan of manufacture that includes QA/QC using appropriate tools and processes
- Prototypes, materials used and manufacturing methods are objectively tested with suggestions for improvements

WHAT KNOWLEDGE DO THE PUPILS NEED TO ACQUIRE?

- Material sources and properties and the impact of using them
- Safe working practices for all D&T areas
- Calculating volume and cost of a range of materials
- Names and uses of a wider range of specialised tools and equipment
- Using Ohm's Law

WHAT SKILLS DO THE PUPILS NEED TO DEVELOP?

- Identifying and clearly defining problems/needs in negotiation with a user
- Writing justified specifications that reflect primary research
- Generating and annotating ideas in response to user feedback
- Evaluating ideas incorporating users' comments and opinions
- Selecting, safely and accurately using specialist tools and equipment
- Devising appropriate tests for their prototypes

WHAT MISCONCEPTIONS MAY THEY HAVE FROM PREVIOUS LEARNING?

D&T is mainly concerned with making. Designing is the same as drawing. The differences between a design brief and a design specification. That ideas that evolve as unworkable are of no value.

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

Design briefs should be written with a problem being addressed and some detail of the intended user. Specifications will be assessed on the extent to which they reflect the research undertaken and the logic of explanation around the justification. Design ideas and annotation are assessed in respect of the degree of match with the specification and the extent to which they respond to user feedback. Pupils' ability to operate machines safely is assessed on a 1:1 basis. Evaluative work is assessed in the light of original intentions; pupils' ability to incorporate user feedback and suggest workable/sustainable modifications that could have a positive environmental impact.

