KS3 Success in Design and Technology
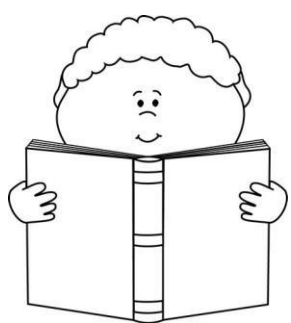
You must:
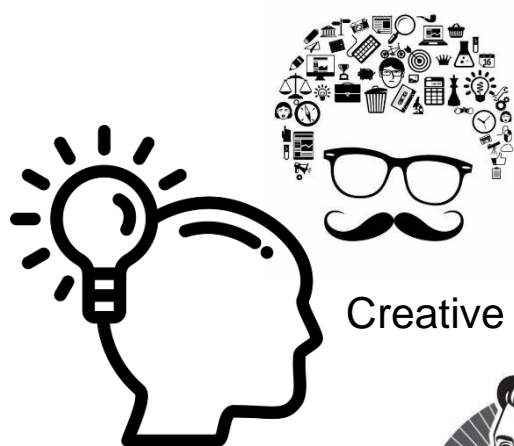
Aim to develop all aspects of your DT skills.

Work at a productive pace.

Be independent.

Fast pace
Slow pace

KS3 Overview
- At KS3 students will develop: their use of creative strategies to help avoid fixation; their practical skills; and their grounding in theory knowledge.
- Students will engage in 2 projects each year (as part of the carousel).

Your outcomes must be:

Creative

Challenging

Well-Made

Aims at KS3:
- be competent at KS4 by teaching knowledge and skills needed;
- have a varied diet of knowledge, practical and cognitive skills and creative strategies;
- enjoy the subject;
- be curious, creative problem solvers;
- facilitate autonomy, ambiguity;
- build students' resilience; and
- encourage the pursuit of STEM subjects and careers.

Key themes of new GCSE specification (8552 - 2017):
- Iteration i.e. explore needs, create solutions, evaluate how well solutions meet needs
- Prototyping
- Primary research
- Third party feedback & client

My KS3 D&T Journey
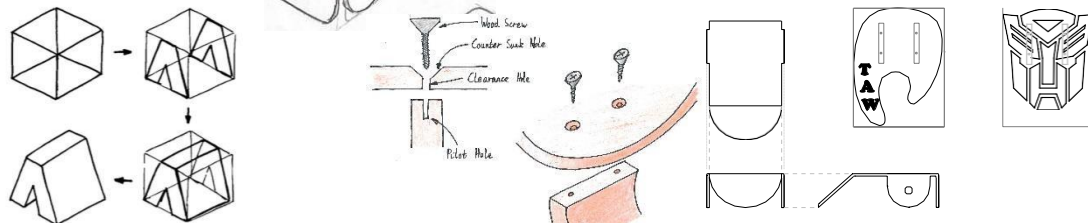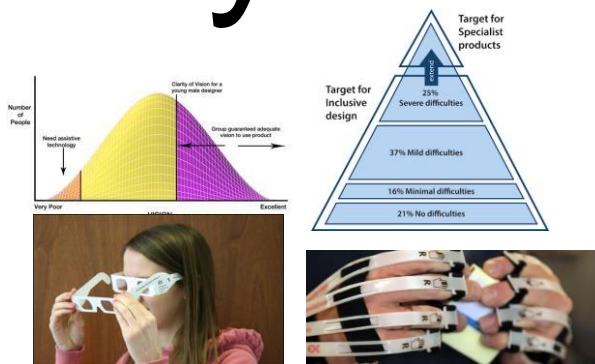
Skills i.e. empathic design tool use prototyping including aesthetic and working prototypes, Product Analysis, task Analysis, Specification writing. **Theory knowledge** i.e. inclusive design, stakeholder identification and needs,

Creative strategies i.e. analogy & conceptual combination.

Focused practical task. Workshop skills i.e. cutting and shaping manmade boards, metal and polymers using hand tools and workshop equipment CAD CAM (laser cutter & 3D printing). **Theory knowledge** i.e. CAD advantages and disadvantages, rapid prototyping, tools identification, quality control.

Inclusive Salt & Pepper

LED Lamp

YEAR 9

Careers signposting: Inclusive Design principles. User-centred design approaches. Empathic Design tools. Iteration. Research - primary and secondary. Understanding data and population statistics. Prototyping and testing ideas. Concept presentation skills.

Careers signposting: Manufacturing industries. Material Science. Quality control procedures.

Radius
Shape
Circles

Skills find inspiration from natural forms to stimulate design proposals, creating both drawn and physical outcomes. Biomimicry is used to convey theory based on science, mathematics and ar

Theory knowledge Form and function are brought to life by looking at the roles that nature plays in the design of the built environment.

Focused practical task Workshop Theory knowledge i.e. CAD, quality control.

Games

Creative strategies i.e. analysing the work of others, designer influences.

Skills i.e. sketching, cutting and shaping using papers and boards, rendering, CAD drawing, 3D forms.

Theory knowledge i.e. understanding key principles of influential designers, needs of the user, ergonomics, nets.

YEAR 8

Functionality & Aesthetics

Desktop

Careers signposting: Batch production. Analysing data. Material Science. Manufacturing. Conducting primary research. Packaging industry.

Careers signposting: Manufacturing industries. Material Science.

Careers signposting: Design strategies. Iteration. Presentation skills.

60
15
20
R3

Designer

Chairs

ReFramed

Health & Safety

YEAR 7

Careers signposting: Designers and their influence. Laser cutters and their use in industry. CAD. Batch production.

GORDON
SEMPER FIDELIS