

Learning to fly in Design Technology

These are the skills and habits which outstanding students of D&T develop. Do as many of these as possible to become completely independent in the subject and to develop the skills and knowledge needed to attain 8/9 at GCSE and A* at A Level. **Remember that just doing what your teacher tells you - in your lessons and beyond - is not enough to develop your full potential in the subject.**

In your lessons

Designing and Developing Ideas:

- Research intensely! Consider the moral, cultural, historical and environmental links between sources and describe relevant issues
- Develop your knowledge of the properties of materials and processes to be able to apply them with confidence when designing
- Work on communication skills, draw from observation, illustrate in 3D and design using 2D, Photoshop and Inventor
- Be creative, think outside the box, be sure to include a range of processes and never accept the simplest design!

Planning and Making:

- Be iterative, model ideas, test and trial all techniques, be critical and then develop designs
- Use your Maths knowledge to calculate sizes, thicknesses circumference etc. and Science understanding to predict the behaviour of a material.
- Produce a presentation final design drawing with a cutting list and a manufacturing plan that considers quality control, health and safety and builds in time contingencies.
- Use the correct tools for the job, don't waste material, measure twice cut once, seek assistance, solve problems and be prepared to start again to achieve a quality product.

Evaluating:

- Reflect on designing and making processes and describe how you solved problems.
- Evaluate how well the product meets the user's needs, Brief and Specification.
- Use the conditional tense to evaluate alternative approaches.

Theory:

- Make links between theory & making. Ask questions to extend knowledge and understanding.

Between your lessons

- Update and extend DT coursework on a regular basis and attend the many lunchtime, after school and holiday catch up workshops.
- Regularly use AfL packs, checklists, mark schemes, exemplars to reflect on how to achieve the highest grades.
- Consolidate learning of terminology, revise theory and sit practice papers.
- Keep informed on new technology and materials, trends in design and manufacture, global issues, exhibitions etc. Use the DT Blog, Apps, watch TV programmes Sewing Bee, Master Chef, Dragons Den etc.

Beyond your lessons

- Design and make at home and go shopping for equipment and materials. Charity shops are an excellent resource for affordable books and artefacts.
- Recognise the materials and manufacturing techniques used in existing products.
- Practice CAD drawings using tutorials and help sheets.
- Find out about progression routes and careers in the design industry.

Of course we recognise that students have busy lives and that this level of engagement is not always possible- but this is what you should aim for if you want to reach the highest level in the subject. You don't need to do ALL of these things to improve - just doing one or two of them will have an impact. Decide on two or three to focus on to improve your skills.