



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. These will help to develop your passion for designing, making and problem solving that hopefully will last a lifetime.

The key to being a successful designer, engineer, chef or architect is highly effective communication. Having the ability to problem solve. To manage your time and projects effectively. Be compassionate and empathetic and consider lots of different people, communities and their experiences. To be brave, creative and resilient. To use the work of others including famous designers, chefs, artists, architects or events in history or within your community that can influence and inspire your own design work. To be able to listen to and affectively apply feedback from others.

In your lessons

Designing and Developing Ideas:

- Research intensely! Consider the moral, cultural, historical and environmental issues that affect your chosen stakeholders, community you are designing for or the design problem you are trying to define and solve.
- Develop your knowledge of the properties of materials and processes to be able to apply them with confidence when designing or planning a meal/cooking.
- Work on communication skills, draw from observation, model in lots of materials. Practice sketching using formal and informal drawing styles. Use your spare time to learn, practice and develop skills using CAD/CAM.
- Build your confidence in discussing your ideas, ask questions about materials and feedback to others as often as you can.
- Be creative, think outside the box, be sure to include a range of ideas, generate ideas in creative ways and never accept the simplest design!

Textiles

- Look at techniques, textures and different ways to apply design onto materials.
- Make mood boards and take photos of things/surfaces/textures you find interesting or inspiring and could use later.
- Work on your doodles, doodling, scribbles, little notes, speech bubbles, annotations, titles, think about how you can take inspiration from an artist and doodle in their style.
- Research! Find people who do what you find interesting, find out how they do it, where they are based, work out what you like/dislike about their work.

Planning and Making:

- Be iterative, model ideas, test and trial lots of techniques, be critical, seek feedback and then develop designs/recipes/idea/models.
- Use your mathematical knowledge to calculate dimensions, ratios, scale, the amount of materials/ingredients you will need. Practice applying your scientific understanding to predict the behaviour of a material or what might happen to a prototype, model or material whilst it is being tested.
- Build your confidence and ability in using a range of materials, tools, processes and software.

Textiles

- Do not be scared to make mistakes and move on, mistakes are important development and learning.
- Practice working with different materials and stitches and thread. Print, sew and draw onto different materials, using materials for the 'wrong job'.

Evaluating:

- Reflect on designing and making processes and describe how you solved problems. Seek feedback from a range of sources to help inform and improve design work.
- Evaluate how well the product meets the user's needs, Brief and Specification.

Textiles

- Discuss how you could change and develop your work further, what were you happy with, what could you do to develop it further.
- How does your work link to the artist, how have you developed it further, how have you made it your own.
- Discuss what is next, how can you turn it into a relevant product that shows your skills and links to the work you have done.
- Reflection is key, constructive reflection is an important skill to work on.

Theory:

- Make links between theory & making. Ask questions to extend knowledge and understanding.
- Read and research beyond the curriculum. Look to the world of design and the news to develop awareness of issues, new technologies, materials or products that are impacting designers.

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, 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.

Textiles

- Be doodling in your book, making notes and researching techniques.
- Take photos when you see something inspiring and interesting.
- Think about what is next, what the next steps are and what it will look like, how you are going to get there.

Beyond your lessons

- Be curious! Ponder on how things work, take thing apart. Try new things and always ask lots of questions.
- Work on your own or in teams to enter design competitions.
- Design and make at home. Build upon your design skills, learn new tools and processes. Spend time refining and practising design communication and presentation skills. Build upon these using expert tutorials online.
- Learn new CAD or coding software, visit workshops and book courses focused on learning complimentary skills.
- Visit exhibitions and museums that have a design focus. Learn about designers of the past and present whose work inspires you.

Of course we recognise that our students have busy lives and that this level of engagement is not always possible all the time - 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.