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# TECHNOLOGY Curriculum Newsletter Y12&13

### Contact

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## **Curriculum Intent**

The Design and Technology curriculum aims to develop students' skills, knowledge, values and passion for Design and Technology, to allow them to be successful in an ever-changing world.

Students will develop their problem solving, organisation, planning, creativity and analysis skills, through a carefully developed curriculum. This provides opportunities for students to gain understanding of a range of materials, ingredients and the impact these have on themselves and the world around them.

Strong values of high expectations, pride in their work, confidence, strong work ethic and a growth mindset, are instilled in students throughout their education in Design and Technology at WPT. A deep passion for the subject is developed, through highly-engaging and relevant curriculum content, with an emphasis of involving industry in the classroom, through an extensive network of links with third parties.

### Year 12 & Year 13 Curriculum

A level Design and Technology provides a unique opportunity in the curriculum for students to identify and solve real problems by designing and making products.

The course is an inspiring, rigorous and practical subject which encourages students to use creativity and imagination. The course covers a wide range of disciplines and can be tailored to the interests and skills of the students such as Engineering, Materials Technology, Construction and Graphics.

Students will learn how to visually record work, conduct relevant research and use the work of others to help develop their own ideas. They will also experiment with a range of materials and manufacturing processes as well as planning, modifying and reviewing their own work.

Year 12 incorporates skills-based mini projects which will cover the basics of a wide range of manufacturing techniques and use of materials from a variety of disciplines. Students will learn how to use an iterative approach to design and learn how they can develop concepts using this type of design. In January of Year 12, students begin their coursework project which will count towards their final grade.

Year 13 is a continuation of the coursework element started in January of Year 12, and students will have until February to complete this. They are required to design and make a project based on a brief developed by the candidate. The portfolio of work completed will need to include a practical outcome, research, materials testing, developments, conceptual product manufacture and evaluations. Once the coursework element is complete, students will have time to focus on and prepare for the written exam.

### Assessment Points



Students are assessed on their ability to evidence the four Assessment Objectives, set by WJEC. These are detailed in the WJEC Specification for GCE Design and Technology. The course is split evenly, 50% coursework, 50% exam.

# Immerse Yourself

### **STEM Grand Challenges**



- **Develop Skills**
- **Future Career Opportunities**
- **Learn About Technology**

### **Subject Specific Reading**

- **Science of Cooking**
- Millennials' Guide to the Construction Trades
- My Street Food Kitchen
- Manmade Wonders of the World

Product Design: Unleash your inser desginer and take on some of the STEM desgin tasks provided by STEM Learning. STEM Learning are dedicated to empowering young people with the skills and knowledge to thrive through effective teaching and learning.

Immerse yourself in the world of design and technology with these subject specific book recommendations for A-Level DT, Construction and Food Technology.

# Test Your Knowledge with Quizlet...

Quizlet's A-Level Design and Technology flashcards are a fantastic way to memorise relevant Tech terms to help you with your studies. Click on the icon below to start!



### **Praise and Reward**

Our rewards system can be broadly split into four categories: classroom level, subject level, school level and privilege rewards. We'll focus on classroom and subject rewards here - for more information about our rewards schemes, please see our website.

### **CLASSROOM LEVEL REWARDS**

**Awarded for:** working hard, taking risks and rising to a challenge, making mistakes and learning from them, helping others, and taking pride in the school community.

**Rewarded by:** praise postcards, positive phone calls to parents/carers, positive text messages home, and lesson based prizes.

### SUBJECT LEVEL REWARDS

**Reward scheme:** Star of the Week, Curriculum Awards (Subject/School Way, Participation, Working with Pride, Embracing the Whole Curriculum), High Flyer, Extra Mile, Most Improved.

Rewarded by: names displayed on reward boards, certificates, social media posts.

# **Broadening Horizons**

Technology, as a subject area, holds very strong links with employment, FE and HE offering students a range of pathways, post secondary education.

The Technology curriculum is forward thinking in creating opportunities to enrich students' experiences, always looking for opportunities to work with external parties from a range of backgrounds from industry partners, local employers, FE and HE, to be involved in enriching the Technology curriculum.



Career In Tech: How To Find The Right Role

If you're interested in a career in Technology, it can be overwhelming with the number of opportunities out there. What role would suit you and help your talents shine? Which direction should you take and therefore what skills should you learn? Click on the logo to watch the YouTube short from Stereotype Breakers now.

### Jobs that use Design and Technology

Where could your favourite subject take you? Get inspired by people using Design and Technology in real-life jobs. Find out how much you could get paid for different roles and what qualifications you might need. Click on the logo to explore with BBC Bitesize now.



### Careers

We run a series of 'Careers in the Curriculum' weeks in our school. For Technology, this week takes place in March. Students take part in a number of activities to encourage them to think about how what they learn in the classroom can be applied in a number of future careers.

In A-Level Careers lessons, students begin to learn about different routes they could take next with a DT qualification. The focus is on next steps after A-Level whether this be university, an apprenticeship, employment or even a gap year volunteering.

You can visit the virtual STEM Learning Exhibition from STEM Ambassadors to learn more about apprenticeships in STEM ranging from Construction to Aerospace and Manufacturing. Click on the logo below to being.



# The Technology Way

Our subject has a 'Subject Way' at the heart of it. Our Subject Way is designed to help students become young subject specialists. The Technology Way is followed in all of our lessons and has two main purposes:

Firstly, to teach students the vital skills they need to achieve their full potential and gain the very best grades they can. Secondly, to teach students how each subject relates to the wider world, incorporating the life skills they will learn.



# Have your say! 🔆

At WPT we're always looking for feedback. If you have any thoughts/opinions on this Curriculum Newsletter, its content or the curriculum in general, please click on the title to fill out a short feedback form.