

### **Composite: Materials and properties**

Year 9

Why do we deliver this?

This composite allows students to **belong** in the design and engineering curriculum by understanding how materials behave and why they are selected for specific purposes. Students explore metals, polymers and woods through testing and investigation.

Learning is structured to support **SEND, PP and vulnerable learners** to **achieve** through practical experimentation, concrete examples and simplified scientific concepts. This enables informed decision-making within design tasks.

Students **thrive** by developing analytical thinking and applying theoretical knowledge to real-world applications, strengthening their understanding of sustainability and material choice.

### **Composite: Food groups, key nutrients and a balance diet**

Year 9

Why do we deliver this?

This composite enables students to **belong** within health education by understanding how food impacts the body and wellbeing. Students learn about macro and micronutrients, deficiencies and diet-related conditions.

Clear sequencing and practical application ensure all students can **achieve**, particularly **SEND and PP learners**, through supported theory and cooking tasks that demonstrate nutrient function.

Students **thrive** by applying knowledge to everyday life, developing responsibility for their health and making informed dietary choices.

### **Composite: Portraiture**

Year 9

Why do we deliver this?

This composite allows students to **belong** in the GCSE pathway by exploring portrait photographers and developing personal responses.

All learners are supported to **achieve** through choice, structured analysis and incremental skill development, ensuring accessibility for **SEND and PP students**.

Students **thrive** by refining their work through experimentation, evaluation and self-assessment, building confidence and readiness for KS4.

### **Composite: Shop front graphics/ 3d**

Year 8/9

This composite enables students to **belong** within both the creative and vocational world of design by exploring how graphics and 3D form combine in real-world contexts such as retail and public spaces. Students investigate how shop fronts communicate identity, purpose and brand, helping them understand how design influences people's choices and experiences.

The curriculum is carefully structured so that all students, including **SEND, PP and vulnerable learners**, can **achieve** through practical model-making, visual research and scaffolded design tasks. Concepts such as scale, proportion, colour and typography are taught through hands-on experimentation and supported drawing and modelling activities, ensuring that learning is accessible and engaging for all ability levels.

Students **thrive** by developing confidence in applying creative ideas to a three-dimensional outcome, refining their designs through making and evaluation. This project builds independence, problem-solving and pride in craftsmanship, while preparing students for future study in 3D Design, Graphics and related creative industries.

## **Composite: CAD 2D design**

Year 7,8,9

Why do we deliver this?

This composite enables students to **belong** within modern design and manufacturing by introducing them to Computer Aided Design (CAD) using 2D Design software. Students learn that digital tools are an essential part of contemporary design practice and are used across engineering, graphics and product design industries.

The curriculum is carefully sequenced so that all learners, including **SEND, PP and vulnerable students**, can **achieve** through structured, progressive skill development. Students begin by learning the basic functions of the software and working off the grid to explore simple tools and commands. They then develop accuracy and control by using grid tools to create pixel art and introduce colour into their designs. Through repeated practice, students learn to use shape tools, line tool options and delete functions to construct and refine images with increasing confidence and independence.

These skills are then applied in a purposeful design task where students design a functional product in the form of a **coaster**, using the knowledge and techniques developed over the previous lessons. This allows students to make connections between digital design and real-world outcomes.

Students **thrive** by building confidence in digital creativity, problem-solving and precision. The final assessed coaster design enables them to demonstrate their understanding of CAD tools while developing pride in their work. This composite prepares students for further study in CAD, Graphics and Engineering, while supporting all learners to succeed through clear modelling, scaffolded tasks and accessible digital learning.