



Subject: D&T & Cooking & Nutrition

Year 7

Overview

Design & Technology works on a rotation where the students rotate between the topics. Pupils change topic 6 times in Year 7. However, they do C&N twice during the year.

Cooking & Nutrition

Cooking & Nutrition

Students make various recipes using oven and hob.

Students are taught to follow key steps to create various types of food. There is a big focus on independence, perseverance and problem-solving skills in this topic.

Prior learning includes Year 5&6 - Introduction to basic cutting techniques. H&S with food preparation. Use of Oven.

Key activities include

- Healthy eating
- Nutrition
- Allergies
- Use of hob, grill and oven
- Adaption of recipes
- Sustainability
- Source of materials
- Advanced cutting & chopping skills
- Blenders & Mixers

Assessment:

All years will be doing an assessment during the term, writing a timeplan and using skills they have learnt to cook their own dish.

Product Design

Product Design

Students use all the skills they have covered in years 5,6 and in graphics from the start of year 7 to make a night light. They are taught how to think very creatively and produce their own designs. There is a big focus on teamwork and problem-solving skills in this topic.

Prior learning includes

- Year 5&6 - Use of hand tools to cut, shape and apply quality finish to work. Working to scale and with templates. Use of acrylic and wood. Measuring and marking out of work. Combining materials to create a final design.
- Year 7 – Graphics tasks which focus on planning and designing as well as quality of design work. Assessment project on practical skills where students make a project linked to the time of the year.

Key activities include

- Initial design, developing ideas and producing final scaled designs that are annotated and include measurements.
- Using scroll saw & belt sander
- Using various hand tools
- Quality finish
- Use of wood and appropriate equipment
- Introduction to electronics – soldering and creating circuits

Assessment:

All tasks are assessed live in lesson.

Self-assessment/Peer assessment and teacher assessment

Tasks are discussed with the teacher in the lesson and self-assessed

Textiles	Textiles Students use all the skills they have covered in years 5,6 and the start of year 7 to make a cushion cover. There is a big focus on CAD (Computer Aided Design) and CAM (Computer Aided Manufacture) as students use an embroidery machine and cricut maker 3. Students are taught how to think very creatively and produce their own designs. There is a big focus on teamwork and problem-solving skills in this topic. Prior learning includes - Year 5&6 - Hand sewing including running and back stitch. Cutting materials accurately, working to scale, design and shading techniques. Using a sewing machine. - Year 7 – CAD & CAM including the use of a cricut maker and embroidery machines. Key activities include - Initial design, developing ideas and producing final scaled designs that are annotated and include measurements. - Setting up and using a sewing machine - Using various hand sewing methods - Use of CAD & CAM. - Using calico and combining various materials. - Press printing. - Embroidery skills	Assessment: All tasks are assessed live in lesson. Self-assessment/Peer assessment and teacher assessment Planning will be discussed with the teacher in the lesson and self-assessed
CAD & CAM	CAD & CAM with modelling and robotics Students learn how to use 2D design and a vinyl cutter. They learn how input and output are linked with robotics. Students get introduced to a cricut maker and embroidery machine. They also cover designing and creating models. Students are taught how to think very creatively and produce their own designs. There is a big focus on teamwork and problem-solving skills in this topic. Prior learning includes - Year 5&6 - Design techniques. Team work and independence. Key activities include - Using 2D Design - Modelling and using craft knives - Using KUBO (mini robot). - Teamwork to build models of chairs and wind turbines. - Setting up and using sewing machine - recap. - Using cricut maker 3 and an embroidery machine. - Pivots and levers task	Assessment: All tasks are assessed live in lesson. Self-assessment/Peer assessment and teacher assessment Planning will be discussed with the teacher in the lesson and self-assessed
Graphics	Graphics Students learn various different drawing techniques including one-point perspective and isometric designs. They get to use T-squares and set squares to create accurate designs. Students are taught to follow key steps to create drawings including how to set up work correctly. There is a big focus on independence, perseverance and problem-solving skills in this topic. Prior learning includes - Year 5&6 - Design techniques such as using a pencil correctly, shading and rendering methods. Key activities include - Using T-squares - Setting up workspace correctly. - Using set squares and rulers. - Rendering and shading techniques. - Isometric drawings - Orthographic drawings - Creating hydraulic lifts	Assessment: All tasks are assessed live in lesson. Self-assessment/Peer assessment and teacher assessment Planning will be discussed with the teacher in the lesson and self-assessed