

Oasis Academy Don Valley – Curriculum Map 2019/20 - Tech

Year Group 8	Half Term 1 9/9/18-26/10/17 7 weeks	Half Term 2 5/11/18-21/12/18 7 weeks	Half Term 3 8/1/19-15/2/19 6 weeks	Half Term 4 25/2/19-30/3/19 5 weeks	Half Term 5 15/4/19-24/5/19 6 weeks	Half Term 6 4/6/19-24/7/19 7 weeks 2 days
Module Title	Food and Nutrition	Food and Nutrition	Metal – Coat Hook	Mood Light	Mood Light	Textiles
Key Questions	<p>How can we understand elements of science within food technology? What is sensory analysis? What careers are there within the food industry? What is product tasting? How can we understand nutrients and how food can help different parts of our bodies? What are different cooking methods and why do we use them? What is convenience food and how can we understand about hidden fats, sugars and salts?</p>	<p>How can we understand elements of science within food technology? What is sensory analysis? What careers are there within the food industry? What is product tasting? How can we understand nutrients and how food can help different parts of our bodies? What are different cooking methods and why do we use them? What is convenience food and how can we understand about hidden fats, sugars and salts?</p>	<p>What are the differences between ferrous and non-ferrous metals? How do we shape and form metal? How do we cut and shape metal? What are different metals used for? What are the environmental impacts of metal? How is metal fixed and attached? How can we understand how to finish products to a high quality?</p>	<p>How can we understand how to solder How can we begin to understand circuits, components and their functions? How can we learn how to work with plywood and manufactured boards? How do we design for others effectively? How do we strive for and achieve high quality outcomes within our practical work? How can we assemble products?</p>	<p>How can we understand how to solder How can we begin to understand circuits, components and their functions? How can we learn how to work with plywood and manufactured boards? How do we design for others effectively? How do we strive for and achieve high quality outcomes within our practical work? How can we assemble products?</p>	<p>How can we understand designing for different cultures? How can we use tools and equipment safely and effectively? Why is CAD/CAM play such an important role within Technology? Why is it important we understand how to design for others? What is smart textiles? How has the textiles industry evolved?</p>
Key Knowledge covered	<p>Students will learn the skills to cook and prepare dishes safely. They will understand the importance of organisation and independence.</p> <p>Students will look at the hidden fats, salts and sugars in fast and convenience and learn how to cook healthier alternatives.</p> <p>Students will take a deeper look at the</p>	<p>Students will learn the skills to cook and prepare dishes safely. They will understand the importance of organisation and independence.</p> <p>Students will look at the hidden fats, salts and sugars in fast and convenience and learn how to cook healthier alternatives.</p> <p>Students will take a deeper look at the</p>	<p>Students will understand how to work with metal. They will be introduced to different types and categories of metals as well as their working properties.</p> <p>They will understand how to cut, shape, form and finish metal.</p> <p>Students will understand how jigs and templates are effectively used as well as the importance of quality control to achieve a well-finished outcome.</p>	<p>Students will focus on their practical skills during this project. Electronics will be introduced through soldering a mood light circuit.</p> <p>Students will understand circuit symbols of components and their used in circuits and electronics. For example, they will understand resistors, capacitors, battery packs and L.E.Ds.</p>	<p>Students will focus on their practical skills during this project. Electronics will be introduced through soldering a mood light circuit.</p> <p>Students will understand circuit symbols of components and their used in circuits and electronics. Students will use their creativity to cut and shape a mood light base using manufactured board. They will understand how to bring</p>	<p>Students will combine their design and making skills to write their own specification to base their design and make project around.</p> <p>The importance of designing for different cultures will be studied. Students will study a range of different countries and cultures and key styles, colours and designs.</p>

	<p>nutrients within the food groups. They will understand a range of ingredients and their properties. Students will be able to make informed food choices.</p> <p>Students will understand a range of different dishes and how recipes can be adapted and added to.</p> <p>Students will begin to learn more complex practical skills throughout the module.</p>	<p>nutrients within the food groups. They will understand a range of ingredients and their properties. Students will be able to make informed food choices.</p> <p>Students will understand a range of different dishes and how recipes can be adapted and added to.</p> <p>Students will begin to learn more complex practical skills throughout the module.</p>	<p>Students will be introduced to a range of new tools and equipment in the workshop and understand how to use these safely and effectively.</p> <p>Students will understand and be able to provide examples of ferrous and non-ferrous metals and some of metals working properties.</p> <p>Students will be able to conduct detailed product analysis and understand how this fits into the design process.</p>	<p>A range of design ideas will be communicated to a high standard.</p> <p>Students will use their creativity to cut and shape a mood light base using manufactured board.</p> <p>They will understand how to bring components together to complete an outcome.</p> <p>.Students will show higher level finishing skills through their final products.</p>	<p>components together to complete an outcome.</p> <p>Students will use their creativity to cut and shape a mood light base using manufactured board.</p> <p>They will understand how to bring components together to complete an outcome.</p> <p>.Students will show higher level finishing skills through their final products.</p>	<p>Students will learn a more complex range of skills and equipment including CAD/CAM based around a textiles outcome. They will learn how to use tools and equipment with independence and confidence.</p> <p>Students will study the modern textiles industry and how it has evolved. They will look into a study the use of smart textiles.</p> <p>Students will create quality design ideas with high levels of annotations.</p>
Key Words and definitions	<p>Eat-well plate-A pictorial summary of the main food groups and their recommended proportions</p> <p>Healthy eating Healthy eating, nutrients, food groups, saturated fats, unsaturated fats, salt, sugar, dietary requirements, carbohydrates, protein, bridge and claw, mise-en place</p>	<p>Mise-en-place- (in a professional kitchen) the preparation of dishes and ingredients before the beginning of service</p> <p>Healthy eating, the eat-well plate, nutrients, food groups, saturated fats, unsaturated fats, salt, sugar, dietary requirements, carbohydrates, protein, bridge and claw,</p>	<p>Ferrous and non-ferrous metals</p> <p>Ferrous metal - Ferrous Metals mostly contain Iron. They have small amounts of other metals or elements added, to give the required properties. Ferrous Metals are magnetic and give little resistance to corrosion.</p> <p>metal forming, spray booth, coping saw, junior hacksaw, file, burs, jigs, templates, soft jaws, pillar drill, fixings and fastenings, , quality control</p>	<p>Electronics, PCB (printed circuit board), components, soldering, soldering iron, resistors, LED (light emitting diode), capacitor, circuit symbols, circuit diagrams, manufactured board, plywood, forsnor bits, acrylic rod, polymers, workshop health and safety</p>	<p>Electronics, PCB (printed circuit board), components, soldering, soldering iron, resistors, LED (light emitting diode), capacitor, circuit symbols, circuit diagrams, manufactured board, plywood, forsnor bits, acrylic rod, polymers,</p>	<p>Smart Textiles – Fabrics that enable digital components such as battery and lights and electronics embedded within them</p> <p>Embroidery machine, smart textiles, fabric, calico, sewing machine, embroidery, fabric decoration, embellishment, applique, cultural design, mood boards, creativity</p>

Formative assessment	During practical work through self, peer and teacher assessment. Regular knowledge checks through class work and homework	During practical work through self, peer and teacher assessment. Regular knowledge checks through class work and homework	During practical work through self, peer and teacher assessment. Regular knowledge checks through class work and homework	During practical work through self, peer and teacher assessment. Regular knowledge checks through class work and homework	During practical work through self, peer and teacher assessment. Regular knowledge checks through class work and homework	During practical work through self, peer and teacher assessment. Regular knowledge checks through class work and homework
Summative assessment	Students will be assessed with a baseline assessment at the end of the introduction weeks.	Students will be assessed practically in a final independent cook. Theoretical knowledge will be assessed through a written assessment as the end of the module.	Students will be assessed practically in a final independent cook. Theoretical knowledge will be assessed through a written assessment as the end of the module.	Students will be assessed practically in a final independent cook. Theoretical knowledge will be assessed through a written assessment as the end of the module.	Students will be assessed practically in a final independent cook. Theoretical knowledge will be assessed through a written assessment as the end of the module.	Students will be assessed practically in a final independent cook. Theoretical knowledge will be assessed through a written assessment as the end of the module.
First-hand experience	. Cross curricular links with English	Cross curricular links with English	Visit/ links with industry. Students will understand how Technology works in industry	STEM week activities	STEM week activities	Cultural celebration. Students will celebrate their own and others cultures.