

| Design and Technology  | Autumn Term   |  | Spring term  |   | Summer term  |  |
|--|---|--|--|---|--|--|
| Year 7   | 1   | 2  | 3  | 4   | 5  | 6  |
| Topic Summary  | Engineering: Chocolate Moulds   |  | Graphics: Toys   |   | Textiles: Sewing Skills  |  |
| <b>Thinking Hard</b>   | <b>Mastery of Learning</b> - Understanding how to annotate and analyse a product. Understanding of branding.  | <b>Not fearing failure</b> - Allowing pupils to develop and design their own product, but also using machines they have never used before.   | <b>Mastery of Learning</b> - Understanding the links between 2d/3d techniques  | <b>Being Creative</b> - Showing high quality design skills and links to typography  | <b>Mastery of Learning</b> - Students should develop knowledge based around tools and equipment, and how fibres and fabrics are made. Where do materials come from?        | <b>Being Creative</b> - Developing skills on the sewing machines, understanding how to control a machine and to be able to complete a range of decorative stitches.                  |
| <b>Developing Character</b>  | <b>Kindness</b> - Show evidence of working with others and to develop ideas as a team.  | <b>Grit</b> - Focussing on core practical skills and use of new tools and equipment, pupils will need to develop GRIT in order to succeed.   | <b>Kindness</b> - working with others and self assessing each others work.   | <b>Grit</b> - showing high quality pop up techniques after practicing different styles.   | <b>Kindness</b> - Pupils will work in pairs on the sewing machines, enabling them to work as a team.   | <b>Self Assurance</b> - Pupils will be able to practice on the machines, by have a chance to improve their work and try again, this is a gradual process.                            |
| <b>Understanding Diversity</b>   | <b>Awareness of where you live</b> - Focussing on products that are sold in shops in local supermarkets.  | <b>Understanding Environmental issues</b> - Focussing on materials and the impact of different materials on the environment.   | <b>No limits</b> - developing new techniques and ways of creating packaging  | <b>Understanding environmental issues</b> - working with materials that can be recycled that can not.   | <b>Understanding Environmental Diversity</b> - Knowledge of fabrics and fibres, how materials are made in a factory as well as around the world. i.e. silk worm factories. | <b>No Limits</b> - pupils will get to test out a range of stitches and settings on the sewing machines.  |
| <b>Literacy Reading, Oracy</b>   | <b>Oracy</b> - being able to talk confidently about materials and branding.   | <b>Literacy</b> - key terms and confidence within using different machines. IE moulds and vacuum former.   | <b>Literacy</b> - key terms linked to D and T (nets/2d/3d/typography)  | <b>Literacy</b> - Key terminology in terms of techniques working with nets.   | <b>Literacy</b> - Understanding key terms based around equipment, fibres, fabric and the sewing machine.   | <b>Reading</b> - revision of the sewing machine parts, understanding what each part does and the meaning between each.   |
| <b>Gatsby, Careers</b>   | <b>Careers</b> - Thinking about packaging/brands/big corporations.  | <b>Careers</b> - Working with different machinery in a workshop setting.   | <b>Materials</b> - working with new materials.   | <b>Careers</b> - Graphic designers/typography   | <b>Cotton Factories</b><br><a href="https://www.youtube.com/watch?v=QHNg0SYlhYs">https://www.youtube.com/watch?v=QHNg0SYlhYs</a>   | <b>Careers/How are clothes made?</b><br><a href="https://www.youtube.com/watch?v=QHNg0SYlhYs">https://www.youtube.com/watch?v=QHNg0SYlhYs</a>  |
| <b>Mental and Physical Well-being</b>                                    | <b>Mental</b> - Links to food, different designs and products that pupils may buy and eat!  | <b>Physical</b> - Working as a team, project related to what children like/get excited about.  | <b>Mental</b> - Colouring/being creative, shows improvement to mental health.  | <b>Mental</b> - Typography techniques which are proven to support mental health.  | <b>Mental</b> - How practical work can have a positive impact on mental health, using thinking skills to solve problems and use new machinery.                             | <b>Physical</b> - Being active, using the machines/packing away correctly/forming a positive routine during lessons. Positive discussions about work created on the machine. WWW/EBI |
| <b>Cross-Curricular Links</b>  | <b>Art</b> - links to graphics and art with analysis of chocolate bars.   | <b>Maths</b> - working with measurements for wooden block/vacuum forming<br><b>Food</b> - Working with chocolate melting   | <b>Maths</b> - working with measurements and calculations  | <b>Maths</b> - working with specific measurements and scales/proportion.  | <b>Geography</b> - Links to how products are made in the differently countries and settings.   | <b>Maths</b> - Calculating/measuring out lines when on the sewing machine in order to create a high quality and straight stitch.   |
| <b>Extra-Curricular Links</b>  | <b>Random Acts of Kindness</b> - Assessment of someone else's work  | <b>International Women's day</b> - Celebrating women designers homework  | <b>World day for Cultural Diversity</b> - Looking into brands which they can base their packaging around.  | <b>Pride Month</b> - Celebrating others/Making products personal to the pupils.   | <b>Black History Month</b> - Links to production methods.  | <b>Anti bullying week</b> - showing kindness and team work with others.  |
| <b>RSHE</b>  | <b>Random Acts of Kindness</b> - Assessment of someone else's work  | <b>RSHE</b> - Taking turns on machines, working in different workshops etc.  | <b>RSHE</b> - Pupil demonstration of work they have made (presentations in class/building confidence)  | <b>RSHE</b> - Working in teams  | <b>SMSC</b> - Working with others on a sewing machine, social skills.  | <b>RSHE</b> - Forming relationships with their partner they are sharing with.  |
| <b>Precise Learning Endpoints. We want students to learn/be able to:</b> | 1. Design a silhouette for their chocolate bar.<br>2. Demonstrate how to use a file and sander to curve a piece of wood.<br>3. Confidently use a file at the correct angle.       | 1. Neaten a piece of wood using manual and mechanical methods.<br>2. Use foam board to draw and cut out a silhouette.<br>3. Observe and use a vacuum former.   | 1. Demonstrate how to create different fonts and typography.<br>2. Identify different food brands and logos.<br>3. Draw accurately and cut out a net.                          | 1. Create a design linked to typography on a net.<br>2. Identify a score and fold line.<br>3. Demonstrate knowledge of how to melt chocolate. | 1. Understand what cotton is.<br>2. Identify the three main parts of the machine.<br>3. Identify where fabric comes from and how it is made.                               | 1. Identify what a piece of thread is.<br>2. Show evidence of how to control the machine.<br>3. Create a straight line and curve using the sewing machine.                           |
| Design and Technology  | Autumn Term   |  | Spring term  |   | Summer term  |  |
| Year 8   | 1   | 2  | 3  | 4   | 5  | 6  |
| Topic Summary  | Engineering: Block Bots   |  | Graphics: Key ring   |   | Textiles: Tradition Project  |  |
| <b>Thinking Hard</b>   | <b>Acquiring Knowledge</b> - Understanding a range of tools and equipment and what they do, developing knowledge of how to design and annotate.                                   | <b>Creating Independence</b> - Linking design work to practical work and developing independence in the workshop.  | <b>Being creative</b> - working with different materials, colours and silhouettes.   | <b>Creating Independence</b> - Gaining knowledge about machinery and new tools and equipment.   | <b>Being Creative</b> - Developing visual techniques and designs from a brief or topic of traditions.  | <b>Creating Independence</b> - Trying out new techniques using different medias and own theme.   |
| <b>Developing Character</b>  | <b>Optimism</b> - Pupils will show when designing a product from scratch that has to be linked to their design brief.   | <b>Grit</b> - Students will apply grit when developing skills in order to make final product out of wood.  | <b>Optimism</b> - Designing skills, working on their own product.  | <b>Self Control</b> - thinking about realistic designs and working towards a deadline.  | <b>Self Control</b> - Using individual ideas to build up their own product.  | <b>Mindfulness</b> - Completing techniques which are calming.  |
| <b>Understanding Diversity</b>   | <b>Awareness of where we live</b> - Pupils can make links to where materials come from, examples of wood/metal/plastic and how these materials link to products in our own homes. | <b>No limits to your destination</b> - Assuring pupils designs link to a range of low and high ability components and skills used. Pushing pupils to think outside the box and make links between their design and how their product will be made in person. | <b>No limits to your destination</b> - Working with different shapes and silhouettes and symbols. Also working with new machines such as the laser cutter and circuit machine. | <b>Being a world citizen</b> - Links to production methods/ how products are made.  | <b>Being a world citizen</b> - Thinking about other countries/ understanding symbols that link to these countries.   | <b>Awareness of where you live</b> - Comparison of traditions in other countries in comparison in the UK.  |

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| <b>Literacy Reading, Oracy</b>   | <b>Oracy</b> - Making the links between tools and equipment and how we use them in the workshop.  | <b>Literacy</b> - Key words and terminology expected to be used during each stage of practical work.   | <b>Literacy</b> - working with materials/terminology.   | <b>Oracy</b> - Being able to explain making stages.   | <b>Oracy</b> - Being able to expand on different traditions and ideas. To be able to use the machines with confidence.  | <b>Literacy</b> - Understanding the different techniques completed in lessons.   |
| <b>Gatsby, Careers</b>   | <b>How is wood made?</b><br><a href="https://www.youtube.com/watch?v=7RGXhxq8w2c">https://www.youtube.com/watch?v=7RGXhxq8w2c</a>   | <b>Potential Careers:</b><br>Engineers/Designers/Product Design  | <b>Careers</b> - production methods of how different products are made.   | <b>Potential careers-</b> Cricut/Hobby Craft/Graphic Design   | <b>Careers</b> - Thinking about different cultures and countries.   | <b>Potential Careers-</b> Links to the textile industry (working in factories/production of clothes)   |
| <b>Mental and Physical Well-being</b>                                    | <b>Identity</b> - Links between designing a character and what qualities they have added to them, reflecting on their own identity.   | <b>Physical</b> - Practical workshop, working with new tools and safety equipment.   | <b>Physical</b> - Practical techniques including CAD/CAM and software design. New techniques pupils have tried.   | <b>Physical</b> - Independently working on machinery.   | <b>Mental</b> - Sewing machine skills have been proven to be therapeutic.   | <b>Physical</b> - Practical techniques/ tie dye and printing showing high quality techniques.  |
| <b>Cross-Curricular Links</b>  | <b>Geography</b> - Where do materials come from? How do we source them?   | <b>Maths</b> - Measuring and marking out different characteristics of the figure.  | <b>Art</b> - Silhouettes/Stencils/Cricut Machine Working with new materials   | <b>Maths</b> - working with measurements/ designing products through software.  | <b>Art</b> - Developing a design for a print image on polystyrene.  | <b>Art</b> - printing and tie dye techniques   |
| <b>Extra-Curricular Links</b>  | <b>Black History Month</b> - Links to identity and how we are all different dependent on colour/race.   | <b>Anti Bullying Week</b> -Promoting working with others, sharing equipment etc.   | <b>World day for Cultural Diversity</b> - Different products from around the world.   | <b>Pride Month</b> - Analysis in lesson of what PRIDE is? Linking to personal choice in products.   | <b>Random Acts of Kindness</b> - Working with others/ thinking about other cultures and countries.  | <b>International Women's day</b> - Focussing on traditions from other countries.   |
| <b>RSHE</b>  | <b>SMSC</b> - Working with others in a practical setting, learning to share and take turns.   | <b>Kindness</b> - Creating a team relationship in the workshop   | <b>Well being /confidence</b> - learning new techniques which build confidence and creativity.  | <b>RSHE</b> - lead learner with taking charge of the laser cutter/circuit machine during lessons.   | <b>Well being</b> - Therapeutic textiles techniques.  | <b>SMSC</b> - Learning about other cultures/ understanding about other beliefs and ways of living.   |
| <b>Precise Learning Endpoints. We want students to learn/be able to:</b> | <ol style="list-style-type: none"> <li>1. Understand the different types of hard and soft woods.</li> <li>2. Design a block bot using a personal theme!</li> <li>3. Identify standard health and safety rules in the workshop.</li> </ol> | <ol style="list-style-type: none"> <li>1. Design and develop a block bot design using every day materials.</li> <li>2. Identify a coping saw, sanding belts and components which join wood together.</li> <li>3. Use sanding machines and saws independently.</li> </ol> | <ol style="list-style-type: none"> <li>1. Explain what a silhouette is.</li> <li>2. Explain the properties of MDF.</li> <li>3. Design and create an outline for a keyring.</li> </ol> | <ol style="list-style-type: none"> <li>1. Create a shape or outline using the coping saw at an angle.</li> <li>2. Sand and flatten edges to make a quality shape.</li> <li>3. Demonstrate independence on the pillar drill to create a hole.</li> </ol> | <ol style="list-style-type: none"> <li>1. Define and give examples of traditions.</li> <li>2. Demonstrate what a repeat and rotate drawing is,</li> <li>3. Develop a tie-dye or printing sample.</li> </ol> | <ol style="list-style-type: none"> <li>1. Demonstrate how to control the sewing machine.</li> <li>2. Identify what a seam is.</li> <li>3. Thread a drawstring through a functional bag.</li> </ol> |
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