

# St Nicholas Catholic High School Curriculum Overview

## Name of Department: Technology

	Year 7	Year 8	Year 9
<p><u>Technology</u></p> <p>Theoretical skills</p>	<p><u>Phone holder project</u></p> <p>Throughout this project the students will be introduced to design process, whereby the students are introduced to a problem and conduct research for it. The students by the end of the project will make a phone holder which is made of pine using dowel joints with a sewn sash within it.</p> <ul style="list-style-type: none"> <li>Students will understand what Health and Safety is and the importance of a safe working environment</li> <li>Understand the different types and categories of woods</li> <li>Understand what a design brief is and how to respond to it</li> <li>Understand the importance of client research and how to present it mathematically and effectively</li> <li>Understand the working properties of textiles</li> <li>Understand will start to understand the factors of sustainability which affect society</li> </ul>	<p><u>Litter Pick Project</u></p> <p>Throughout this project students will create their own litter pick to underpin the theoretical element of linkages and leavers. The students should be able to draw on their scientific knowledge from year 7 to go through the design process of design, model and make.</p> <ul style="list-style-type: none"> <li>Students will understand what a mechanism is</li> <li>Students will know the four types of motion</li> <li>Students will know what linkages and levers are. The students will know the three different parts of a lever</li> <li>Students will understand the importance of modelling and the students will be able to evaluate their models</li> <li>The students will understand what a specification is and the importance of the specification</li> <li>The students will be able to create a range of design ideas linking up to their models and their theoretical knowledge</li> <li>Students will learn about sustainability and the impact our products have on the environment</li> </ul>	<p><u>Jewellery and packaging project</u></p> <p>Throughout this project students will create their own piece of jewellery (or keyring) and will design and manufacture packaging to appeal to their target audience. The students within this topic will learn graphics and branding skills as well as casting skills.</p> <ul style="list-style-type: none"> <li>Students will understand different target markets and will analyse existing products</li> <li>Students will recall knowledge from KS2 and mathematics to research different nets. The students will look at complex nets and their different target audiences</li> <li>Students will design a range of different pieces of jewellery and suitable nets for them.</li> <li>The students will evaluate their pieces of jewellery against the specification</li> <li>The students will create their nets and castings on 2D design, improving their CAD skills.</li> <li>Students will develop their understanding of sustainability of packaging and materials.</li> </ul>
<p>Practical Skills</p>	<ul style="list-style-type: none"> <li>Be able to demonstrate measuring skills using a try square and a steel ruler</li> <li>Be able to safely use a pillar drill</li> <li>Be able to use a wood and metal vice</li> </ul>	<ul style="list-style-type: none"> <li>Be able to design ideas demonstrating creativity and scientific knowledge</li> <li>Be able to model out of cardboard using a Stanley knife and a cutting board</li> <li>Be able to use a ball pein hammer to secure panel pins</li> </ul>	<ul style="list-style-type: none"> <li>Students to be able to demonstrate creativity within their design ideas</li> <li>Students to be able to demonstrate fluency with their use of 2D CAD to create their casting mould and packaging net</li> </ul>

	<ul style="list-style-type: none"> <li>• Be able to use a bench hook</li> <li>• Be able to use a coping saw, hacksaw and hegnar saw</li> <li>• Be able to create a dowel joint independently</li> <li>• Be able to problem solve independently to create their phone holder</li> </ul>	<ul style="list-style-type: none"> <li>• Be able to create a mechanism</li> <li>• Be able to use a hacksaw and metal vice to cut threaded bar</li> </ul>	<ul style="list-style-type: none"> <li>• Students to be able to cast metal into a mould using the brazing hearth</li> <li>• Students to be able to use a hacksaw, file and sandpaper to finish their piece of jewellery</li> <li>• Students to be able to use a hand drill to ensure their piece of jewellery is functional</li> </ul>
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