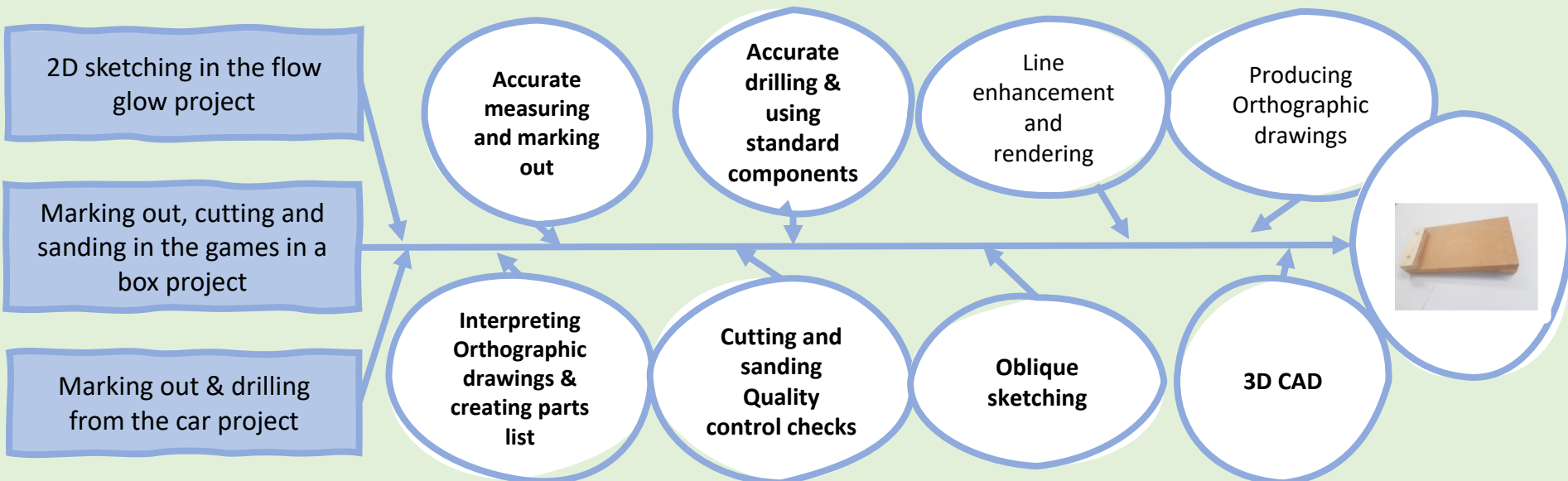


Project 1; Bench Hook - Why do we study Engineering?

We study Design and Technology to nurture creativity, demonstrate iterative design, and show case problem solving in a practical manner. Technology is all around us and is driven by market pull, social factors and clients' needs, which are reflected in the design and manufacture of prototypes and end products. Design and Technology is an inspiring, rigorous and practical subject. The enjoyment and commitment from students are shown from our high-quality outcomes and the outstanding progress that is made ensuring all students meet and exceed their personal best. Students must understand the properties of materials across the breadth of subject areas to make informed decisions that influence performance, aesthetics and cost.

During this project you will follow engineers' drawings to guide the accurate manufacture and assembly of a bench hook.

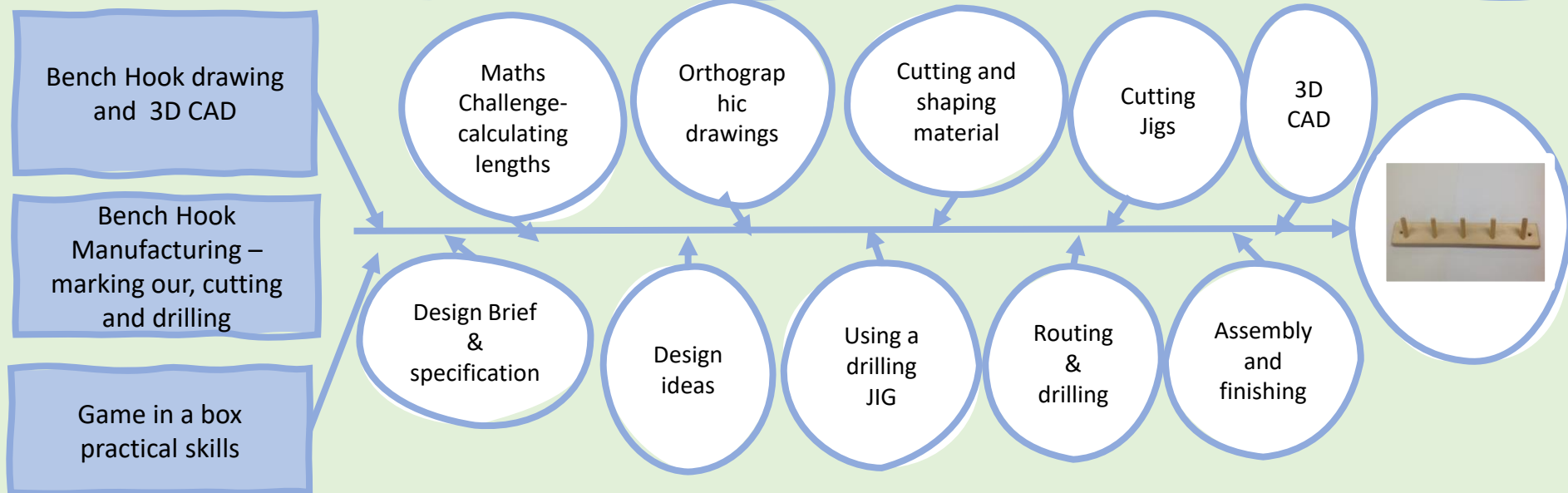
You will use quality control checks to ensure manufacturing is within specified tolerances and will become more independent in the setting up & use of tools & equipment. You will develop your knowledge of components and materials and develop understanding of how their selection can impact on sustainability. You will develop your knowledge and skill in the use of oblique sketching, orthographic drawing and the use of 3D CAD.



Project 2; Coat Hook - Why do we study Engineering?

By studying Design and Technology we allow opportunities to develop skills and knowledge across a wide range of disciplines using traditional, practical and computer aided tools. Students must understand the properties of materials across the breadth of subject areas to make informed decisions that influence performance, aesthetics and cost. Students will learn to communicate ideas through sketching in 2D and 3D. We build greater complexity in design using specific software that allows students to showcase ideas on digital devices and outputs that would be used within a commercial environment.

The Coat Hook project allows you to develop your own unique product through the iterative process of sketching, engineers drawing and 3D CAD. You will learn about scales of production and use and develop jigs to increase the efficiency of batch production. You will develop your independence and manufacturing skills while producing your own unique coat hook.



Project 3; Small Item Storage - Why do we study Engineering?

Within Design and Technology, we begin with health and safety and building competency's using industrial and domestic tools and equipment. Students will work collaboratively digesting design Briefs and analysing tasks. Students will learn to communicate ideas through sketching in 2D and 3D. Students must understand the properties of materials across the breadth of subject areas to make informed decisions that influence performance, aesthetics and cost. Through our subject we look to actively develop skills transferrable skills, such as teamwork, project and time management which are consistently sought and valued by employers.

During this project you will be use will the iterative design process to re-design and making an improved small item storage prototype. You will develop your design skills through isometric sketching, engineers drawing and 3D CAD. You carry out risk assessments and follow your manufacturing plan to produce your own, unique prototype using traditional workshop and modern manufacturing techniques. You will test and evaluate your final prototype against the specification and identify potential improvements.

