Design & Technology - Rationale

Design & Technology is taught as a discrete subject within many other areas of the curriculum such as; Enterprise, Art and Design, Food Technology and all areas of Knowledge and Understanding the Global World.

In Priory Woods we ensure the teaching of Design and technology is inspiring and practical allowing for creativity and imagination. Within many lessons pupils design and make products that support areas of learning and solve real and relevant problems. Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Students will work in a varied and broad range of relevant contexts for example, the home and school, gardens and playgrounds, the local community, industry and the wider environment.

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PERFORMANCE INDICATORS	RANGE, CONTENT AND CURRICULUM OPPORTUNITIES.
For EYFS provision also refer to ***Development Matters*** Expressive arts and design: Exploring and using media and materials & Physical Development: Health and self-care development statements. **P1- P3:** Refer to Sensory Curriculum/Routes For Learning (RFL) **P4** With help, pupils begin to assemble components provided for an activity, for example, placing bricks together. They contribute to activities by coactively grasping and moving simple tools. They explore options within a limited range of materials. **P5** Pupils use a basic tool, with support. They demonstrate preferences for products, materials and ingredients. **P6** Pupils recognise familiar products and explore the different parts they are made from. They watch others using a basic tool and copy the actions. They begin to offer responses to making activities, for example, suggesting the colour or shape of a product. **P7** Pupils operate familiar products, with support, and explore how they work. They use basic tools or equipment in simple processes, chosen in negotiation with staff, for example, in cutting or shaping materials. They begin to communicate preferences in their designing and making, for example, adding selected felt shapes to fabric. **P8** Pupils explore familiar products and communicate views about them when prompted. With help, they manipulate a wider range of basic tools in making activities, for example, joining components together to make their intended product. They begin to contribute to decisions about what they will do and how, for example, communicating their approval of certain features of a process. **Key Stage 1 Expected levels**	In EYFS and Lower School pupils will be provided with opportunities to develop their DT through: ➢ a topic based curriculum (Cornerstones) ➢ a sensory curriculum/Routes For Learning (RFL) ➢ areas of learning, both indoor and outdoor ➢ environmental visits ➢ special events, e.g. science days, ➢ Imaginative play and student led activities for example, placing bricks together, pretend cooking, model making. Within play explore, levers, sliders, wheels and axle. ➢ Exploring and making food in many different curriculum areas for example, making fruit salad, students can make choices such as adding grapes or chopped apple to a fruit salad. When making a sandwich students can select a preferred filling. ➢ Being Creative- Using different tools for a range of activities for example, cutting, shaping, joining and finishing. In Upper School pupils will be provided with opportunities to develop their DT learning through: ➢ a sensory curriculum/Routes For Learning (RFL) ➢ a topic based curriculum (Cornerstones) ➢ Timetabled Cookery lessons (specifically promoting independent use of taught skills) ➢ Cross curricular links e.g. Link to scientific enquiry to understand and use electrical systems in their products for example, series circuits incorporating switches, bulbs, buzzers and motors. Link to KUW to design and make products to link to topic areas. ➢ Food technology will be covered in many areas of the curriculum eg instructions in literacy, measure in mathematics and food tasting linked to topic areas in other subjects particularly KUW.

Students will; • design purposeful, functional, appealing products for themselves and other users based on design criteria • generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology • select from and use a range of tools and equipment to perform practical tasks for example, cutting, shaping, joining and finishing • select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics • explore and evaluate a range of existing products • evaluate their ideas and products against design criteria • build structures, exploring how they can be made stronger, stiffer and more stable • explore and use mechanisms for example, levers, sliders, wheels and axles, in their products. In addition students will study cooking and nutrition; • use the basic principles of a healthy and varied diet to prepare dishes • understand where food comes from **Key Stage 2 Expected levels** Students will; • use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups • generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design	➢ special events, e.g. science days e.g. Offer opportunity to explore gears, pulleys, cams, levers and linkages.

• select from and use a wider range of tools and equipment to perform practical tasks for example, cutting, shaping, joining and finishing, accurately • select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities Evaluate • investigate and analyse a range of existing products • evaluate their ideas and products against their own design criteria and consider the views of others to improve their work • understand how key events and individuals in design and technology have helped shape the world • apply their understanding of how to strengthen, stiffen and reinforce more complex structures • understand and use mechanical systems in their products for example, gears, pulleys, cams, levers and linkages • understand and use electrical systems in their products for example, series circuits incorporating switches, bulbs, buzzers and motors • apply their understanding of computing to program, monitor and control their products In addition students will study cooking and nutrition; • understand and apply the principles of a healthy and varied diet • prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques • understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.	

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APPENDIX

The D & T Curriculum has been written with reference to the following documents and websites:

- Performance Indicators for Value Added Target Setting 4th Edition (PIVATS).
- P Scales 2014 https://www.gov.uk/government/publications/p-scales-attainment-targets-for-pupils-with-sen
- Development Matters. 2012. http://www.lancsngfl.ac.uk/curriculum/early_years/download/file/Development%20Matters%20in%20the%20Early%20Years%20Foundation%20Stage1.pdf
- Cornerstones Curriculum
- Priory Woods PMLD Curriculum map (School shared resources)
- Routes For Learning (RFL) map