



Aspiring Ashwood

Design & Technology

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Intent



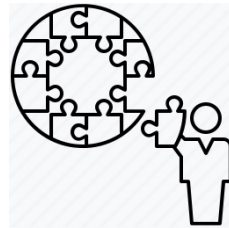
At Ashwood Spencer Academy, we aim to create and enable children to problem solve and innovate. Our design and technology curriculum aims to ensure that children have the opportunity to innovate and create products for a particular purpose. We ensure that the children use a range of tools and materials throughout their Ashwood journey so that they are equip with navigating life beyond school. Children will build a repertoire of technical and practical expertise needed to participate successfully in an increasingly technological world. They will build on these skills year on year and this is planned as part of the broad curriculum.

Planning



The knowledge, skills and understanding that the children will be taught on their Ashwood journey is clearly mapped out. Teachers use this to plan their sequences of learning. Design and Technology is taught explicitly in Y1-6. Children in KS1 complete 3 projects a year, and KS2 children complete 4 each year. Every year group has a cooking project per year. Projects involve structures, mechanical systems, textiles and nutrition. Throughout their Ashwood journey, the children will build on their knowledge, skills and understanding within the strands of D&T: design, make, evaluate and technical knowledge. The knowledge children will learn has been carefully selected for the children at Ashwood, and has been mapped out to ensure that knowledge, skills and understandings link across topics and year groups. The planning is progressive and engaging. The long term planning is based on the National Curriculum.

Implementation

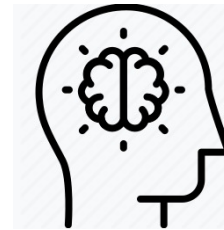


At Ashwood Spencer Academy, we teach design and technology through complete projects. All projects should include:

- Investigative and evaluative activities where children learn from a range of existing products and find out about D&T in the wider world.
- Focused tasks where children are taught specific technical knowledge, designing skills and making skills.
- Design, make and evaluate assignments where children create functional products with users and purposes in mind.

We use LegoWeDo as a tool to teach computer aided design & technology.

Assessment



D&T assessment has been broken down in to 5 strands which have been pulled from the aims and programmes of study in the National Curriculum. These include: design, make, communicate, evaluate and nutrition. Each term, teachers assess their children against these strand statements to determine whether they are meeting the year group expectation. The analysis of this informs future planning at child, cohort and whole school level. Knowledge is assessed through spaced retrieval strategies used weekly throughout their time at Ashwood Spencer. Activate sections of lessons also assess retention of knowledge on a lesson by lesson basis.

Enrichment



Building cultural capital at Ashwood begins with providing our children with the skills they need for the 'real' world. To enable our children to have experiences and magical learning moments which they otherwise would not get, we have a range of different equipment and facilities to support learning both in and out of the classroom. For example, all year groups are invited to have a tour of the Ashwood kitchen, where they can see the different equipment and tools which are used to prepare their dinners. They discuss health and safety in the work place and the importance of food hygiene. As part of wider STEM enrichment across school, we have visitors and opportunities to relating to engineering opportunities and careers.

Linking Learning



We believe design and technology provides a natural opportunity for children to practice and improve basic skills such as spoken language, problem solving, art and design, computing, English and mathematics. The school curriculum map indicates how relevant subjects are grouped together, specific links are made with science and exciting STEM opportunities. Teachers will make links where possible and enhance children's learning in other curriculum topics.

Design & Technology

National Curriculum



Our design & technology curriculum fulfils the requirements of the National Curriculum. All aims and subject content statements are met by the time the children have completed their Ashwood Journey.

The children begin their journey in the early years where they are taught and given opportunities to safely use and explore a variety of materials tools and techniques, experimenting with colour, design, texture, form and function, and use what they have learnt about media and materials in original ways, thinking about uses and purposes. This learning is then built upon throughout KS1 and KS2 with project based learning.

Exceeding Curriculum



Whilst our design and technology curriculum at Ashwood Spencer meets the objectives set out in the National Curriculum, we have chosen to break these down further and sequence them throughout the Ashwood journey. This enables us to ensure solid understanding and well practiced skills that children can use beyond their time at school. We know that obesity in children is becoming a country wide problem, therefore we have ensured that nutrition is a priority in our D&T curriculum, and is studied each year.

The Ashwood Children



Because the children in our community do not always have the opportunity to use a range of tools to enable their creativity out of school, we have designed a curriculum that challenges our pupils' creativity in a supportive and safe environment. We have ensured that our curriculum coverage has an emphasis on practical skills and real-life experiences all centred around the 4 key stages of design technology: design, make, evaluate and developing technical knowledge. Locally, Rolls Royce have been prevalent in the area, so we look to make links where possible and hope to inspire children with engineering in their community.

Ambitious for DP, SEND and EAL



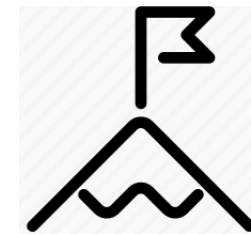
Our curriculum is ambitious for all children. All children have access to the curriculum and to ensure that children can access it, we ensure that for all pupils, including disadvantaged pupils, we:

- Provide high quality materials in order to fulfil their designs
- Provide high quality tools so that children can 'make' their product to a high standard
- Have visitors in to school to inspire and spark creativity

For our SEND and/or EAL children we include:

- Visual representations
- Real-life experiences
- Dual-coding throughout lessons
- Communication in Print

How is it challenging?



Our design and technology curriculum is designed to be challenging for all learners. Teachers develop stimulus and design criteria to challenge the learners appropriately, whilst ensuring coverage of objectives.

Building structures with mechanical systems is a challenge across year groups. Therefore, we have spread out the technical knowledge and understanding of mechanical systems to ensure depth of knowledge and understanding.

Our cooking projects can often prove challenging for our children due to the nature of many of their home lives. Often, children have not handled kitchen utensils outside of their D&T projects.

An Ashwood Engineer



Having studied our design & technology curriculum, an Ashwood child will leave us with:

- A the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technical world.
- The ability to apply a range of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a range of users.
- Skills in critiquing, evaluating and testing their ideas and products and the work of others.
- An understanding of and the techniques in using and selecting a range of tools and materials safely.
- An understanding of the ways in which people from the past and present have used design and technology to meet their needs.