

Design & Technology

At Chirton School we believe that Design and Technology provides children with opportunities to develop their creativity, imagination and problem solving skills enabling them to innovate and invent to a high standard.



Intent – We aim to move children on from Chirton...



Having developed a range of skills needed to make high quality products.



Evaluating their own designs effectively and improve on it.



Able to plan, appreciating the design process which has influenced the products we use in everyday life.



Resilient and able to see a project through to the end.



Trusted to use tools safely and effectively having developed the skills necessary to do so.



Implementation – How do we achieve our aims?

Planning

We teach our art curriculum through three key strands:

- Master practical skills
- Design, make, evaluate and improve
- Taking inspiration from design throughout history

DT is taught in 2-3 week blocks throughout the academic year when detailed focus is given to one aspect of the Design and Technology curriculum. This ensures in-depth mastery of skills, the opportunity to build on ideas and the time to explore appropriate examples (including historical examples) for the skill and age group of the children participating.

Cross Curricular Approach

To enable pupils to develop the essential life skills of creativity, imagination and problem solving in all areas of the curriculum we have interwoven many aspects of the DT curriculum into other areas. Construction work is closely linked to our learning in forest school and as such the children develop these skills in a practical and real life situations. The development of skills happens in line with both the DT skills progression document but also our Forest School skills progression document. Computing elements of the DT curriculum are covered within specific computing theme days, while textiles objectives are covered as part of our 2 year rolling Art/DT topic programme. Finally electronics & electricals and mechanics are covered as part of our science teaching to help children understand the underpinning concepts and use them in a practical situation.

Access for all

We provide children with the opportunities for reflection, give them the opportunity to develop a range of skills and expose them to the work of others and encourage critical thinking when it comes to analysing their own works. At the core of all that we do is the encouragement for children to express themselves in their own way. There is great pleasure to be gained from a life long confidence to be innovative and inventive and we offer children the opportunity to start this journey by fostering a supportive, inclusive and encouraging environment where every child has the opportunity to develop their creativity and problem solving skills.

Skills

Children progress through the following skills on a two year rolling programme:

- Food
- Materials
- Textiles
- Construction
- Electricals and Electronics
- Computing
- Mechanics

Implementation (continued)

A complete process

Children need to learn to follow a robust process to enable them to develop the process of design thinking and to see design as a process that requires specific steps to be followed.

Design

Children will use research (their own research in UKS2) and a design criteria to inform the design of innovative products that are fit for purpose. They will become increasingly aware of the necessity for the product to be targeted at a specific group. Children will generate and develop original and innovative designs that are refined and adapted through discussion and the development of annotated plans and prototypes.

Make

Children will become increasingly confident in choosing the tools most suited to the practical task they need to complete. They will learn the skills necessary to carry out a range of practical activities including cutting, shaping, joining and finishing with increasing accuracy and independence.

Evaluate

As part of the initial design process children will learn to evaluate existing products, analysing their suitability for the purpose and using this knowledge to shape their own thoughts and ideas. Once they have created a product children will be able to evaluate its effectiveness against their original design criteria, discuss the strengths of their product and also identify any areas for improvement or further development.

Improve

Once children have made their product or prototype and have evaluated its effectiveness they will have the opportunity to act upon their evaluations to create an improved design.

Impact: How will we know we have achieved our aims?



Children will have developed an understanding of the cross curricular elements within the subject and the importance of skills learnt in other subjects.



Children will become innovators who have a recognition that their vision can be achieved through a variety of means.



Children will have the confidence and skills needed to implement their own ideas and to make their vision a reality.



Children will be able to use a wide range of tools safely and will have the confidence and knowledge to effectively choose the most appropriate tools for a specific task.