



Chandag Infant School - DT Scheme of Work

Vision statement/overall aim of subject: Design and technology is an inspiring, rigorous and practical subject. Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. The national curriculum for design and technology aims to ensure that all pupils: ♣ develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world ♣ build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users ♣ critique, evaluate and test their ideas and products and the work of others ♣ understand and apply the principles of nutrition and learn how to cook.

EYFS

ELG 15 – Understanding the World – Technology

Children recognise that a range of technology is used in places such as homes and schools.
They select and use technology for particular purposes.

ELG 16 – Expressive arts and design – Exploring media and materials

They safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.

ELG 17 – Expressive arts and design – Being imaginative

Children use what they have learnt about media and materials in original ways, thinking about uses and purposes.
They represent their own ideas, thoughts and feelings through design and technology.

An enabling environment should provide –

- Provide a range of materials and objects to play with that work in different ways for different purposes, for example, egg whisk, torch, other household implements, pulleys, construction kits and tape recorder.
- Provide a range of programmable toys, as well as equipment involving ICT, such as computers.
- Provide resources for mixing colours, joining things together and combining materials, demonstrating where appropriate.



Chandag Infant School - DT Scheme of Work

- Provide children with opportunities to use their skills and explore concepts and ideas through their representations.
- Have a 'holding bay' where models and works can be retained for a period for children to enjoy, develop, or refer to.
- Make materials accessible so that children are able to imagine and develop their projects and ideas while they are still fresh in their minds and important to them. Provide children with opportunities to use their skills and explore concepts and ideas through their representations.



Chandag Infant School - DT Scheme of Work

In **Years 1 and 2** pupils are taught to:

- Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts [for example, the home and school, gardens and playgrounds, the local community, industry and the wider environment]. When designing and making, pupils should be taught to:
- **Design** ♣ 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
- **Make** ♣ 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
- **Evaluate** ♣ explore and evaluate a range of existing products ♣ evaluate their ideas and products against design criteria
- **Technical knowledge** ♣ 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.

The **National Curriculum for DT key stage 1** aims to ensure that all pupils:

-

<u>Y1 Skills</u>	<u>Topics and Learning Activities in Year 1</u>
<p><u>DEVELOPING, PLANNING AND COMMUNICATING IDEAS</u></p> <p>Begin to draw on their own experience to help generate ideas and research conducted on criteria.</p> <p>Begin to understand the development of existing products: what they are for, how they work, materials used.</p> <p>Start to suggest ideas and explain what they are going to do.</p>	<p>Term 1 – building a bridge to span 2 tables with newspaper</p> <p>Term 1 – design fruit kebabs</p> <p>Term 2 – Christmas cards – (appraising others designs, design own card)</p> <p>Term 2 – Christmas party hats</p> <p>Term 3 – making animal masks</p>



Chandag Infant School - DT Scheme of Work

<p>Understand how to identify a target group for what they intend to design and make based on a design criteria.</p> <p>Begin to develop their ideas through talk and drawings.</p> <p>Make templates and mock ups of their ideas in card and paper or using ICT.</p> <p>MAKE QUALITY PRODUCTS, WORKING WITH TOOLS, EQUIPMENT, MATERIALS AND COMPONENTS</p> <p>Begin to make their design using appropriate techniques.</p> <p>Begin to build structures, exploring how they can be made stronger, stiffer and more stable.</p> <p>Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.</p> <p>With help measure, mark out, cut and shape a range of materials.</p> <p>Explore using tools e.g. scissors, hole punch, hammer, safely.</p> <p>Begin to assemble, join and combine materials and components together using a variety of temporary methods e.g. glues or masking tape.</p> <p>Begin to use simple finishing techniques to improve the appearance of their product.</p>	<p>Making a safari/nature hide</p> <p>Term 3 – African sunset pictures – cutting out silhouettes</p> <p>Term 3 – Chinese New Year Dragon puppets</p> <p>Term 1 – building a bridge to span 2 tables with newspaper (building structures)</p> <p>Term 1 – making fruit kebabs</p> <p>Term 2 – Christmas crafts – (using tools, shaping and assembling)</p> <p>Term 2 – Christmas cards – (marking out, cutting, shaping and assembling)</p> <p>Term 2 – Christmas party hats – (marking out, cutting and assembling)</p> <p>Term 3 – making animal masks</p> <p>Making a safari/nature hide</p> <p>Term 3 – making a habitat box</p> <p>Term 3 – Chinese New Year dragon puppets</p> <p>Term 3 – making a moving tiger picture – using a sliding mechanism</p> <p>Term 3 – Making a free standing penguin</p>
---	--



Chandag Infant School - DT Scheme of Work

<p><u>EVALUATING PROCESSES AND PRODUCTS</u> Start to evaluate their product by discussing how well it works in relation to the purpose (design criteria).</p> <p>When looking at existing products explain what they like and dislike about products and why.</p> <p>Begin to evaluate their products as they are developed, identifying strengths and possible changes they might make.</p> <p><u>FOOD AND NUTRITION</u> Begin to understand that all food comes from plants or animals.</p> <p>Explore the understanding that food has to be farmed, grown elsewhere (e.g. home) or caught.</p> <p>Start to understand how to name and sort foods into the five groups in 'The Eat well plate'</p> <p>Begin to understand that everyone should eat at least five portions of fruit and vegetables every day.</p> <p>Know how to prepare simple dishes safely and hygienically, without using a heat source.</p> <p>Know how to use techniques such as cutting, peeling and grating.</p>	<p>Term 2 – Christmas cards (appraising existing designs)</p> <p>Term 3 – making a habitat box – evaluating colour ranges used to portray habitat.</p> <p>Term 1 – Harvest – Food collage around the world – understanding where food comes from</p> <p>Term 1 – Fruit kebabs – (hygienic and safe preparation, cutting and peeling)</p> <p>Term 4 – Healthy eating</p> <p>Term 4 – How is chocolate made?</p> <p>Term 4 – Chocolate Easter nests</p>
<p><u>Y2 Skills</u></p>	<p><u>Topics and Learning Activities in Year 2</u></p>



Chandag Infant School - DT Scheme of Work

<p><u>DEVELOPING, PLANNING AND COMMUNICATING IDEAS</u></p> <p>Start to generate ideas by drawing on their own and other people's experiences.</p> <p>Begin to develop their design ideas through discussion, observation, drawing and modelling.</p> <p>Identify a purpose for what they intend to design and make.</p> <p>Understand how to identify a target group for what they intend to design and make based on a design criteria.</p> <p>Develop their ideas through talk and drawings and label parts.</p> <p>Make templates and mock ups of their ideas in card and paper or using ICT.</p>	<p>Term 1 – photo frames for selfies</p> <p>Term 3 – junk modelling – rockets / space station</p> <p>Term 6 – designing a clown car</p>
<p><u>MAKE QUALITY PRODUCTS, WORKING WITH TOOLS, EQUIPMENT, MATERIALS AND COMPONENTS</u></p> <p>Begin to select tools and materials; use correct vocabulary to name and describe them.</p> <p>Build structures, exploring how they can be made stronger, stiffer and more stable.</p> <p>Use mechanisms [for example, levers, sliders, wheels and axles], in their products.</p> <p>With help measure, cut and score with some accuracy.</p> <p>Learn to use hand tools safely and appropriately.</p>	<p>Term 1 – photo frames for selfies – including icons to decorate</p> <p>Term 2 – making a healthy smoothie including selecting tools and equipment needed</p> <p>Term 3 – junk modelling – rockets / space station</p> <p>Term 5 – using tools to make a clay frog</p> <p>Term 6 – designing and making a clown car</p>



Chandag Infant School - DT Scheme of Work

<p>Assemble, join and combine materials in order to make a product.</p> <p>Demonstrate how to cut, shape and join fabric to make a simple product. Use basic sewing techniques.</p> <p>Start to choose and use appropriate finishing techniques based on own ideas.</p> <p>EVALUATING PROCESSES AND PRODUCTS</p> <p>Evaluate their work against their design criteria.</p> <p>Look at a range of existing products explain what they like and dislike about products and why.</p> <p>Start to evaluate their products as they are developed, identifying strengths and possible changes they might make.</p> <p>With confidence talk about their ideas, saying what they like and dislike about them.</p> <p>FOOD AND NUTRITION</p> <p>Understand that all food comes from plants or animals.</p> <p>Know that food has to be farmed, grown elsewhere (e.g. home) or caught.</p> <p>Understand how to name and sort foods into the five groups in 'The Eat well plate'.</p>	<p>Term 2 – evaluating smoothies against design criteria</p> <p>Term 6 – evaluating clown cars against design criteria</p> <p>Term 2 – Healthy eating linked to Harvest</p> <p>Healthy eating posters</p> <p>Term 2 – design a healthy smoothie – select and use ingredients, tools and equipment to make a smoothie.</p>
---	---



Chandag Infant School - DT Scheme of Work

Know that everyone should eat at least five portions of fruit and vegetables every day.

Begin to know that to be active and healthy, food and drink are needed to provide energy for the body.

Demonstrate how to prepare simple dishes safely and hygienically, without using a heat source.

Demonstrate how to use techniques such as cutting, peeling and grating.