

Curriculum Story for Design & Technology 2022/23

Vision

Design and Technology is an inspiring, rigorous and practical subject. We would like our pupils to use creativity and imagination to design and make products that solve problems, within a variety of contexts, considering their own and others' needs and wants.

DT at ST Mary's Hampton School



Design & Technology Whole School Overview

- Art and DT are taught interchangeably at St Mary's Hampton Primary School
- Each year group learns two DT topics per year
- Each year group celebrates National *Healthy Eating Week* in Summer 2

Year group	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
1	Art	Maasai Necklaces	Art	1. Paper Planes 2. Moving Pictures	Art	<i>Healthy Eating Week</i> Moving Vehicles
2	Art	Art	Art	Easter Cards	Art	<i>Healthy Eating Week</i> Mechanical Posters
3	Art	Art	Art	Great Bread Bake-Off!	Art	<i>Healthy Eating Week</i> Greek Coin Purses
4	Art	Art	Chocolate	Art	Art	<i>Healthy Eating Week</i> Art
5	Viking Longships	Art	Art	Art	Automata Moving Toy	<i>Healthy Eating Week</i>
6	WW2 Victory Gardens	Art	Art	Art	Wire Loop Game	<i>Healthy Eating Week</i>

- At St Mary's we fulfil all the National Curriculum aims for DT with carefully selected projects that will enable pupils to progress in the following areas: materials, mechanisms, cooking and nutrition, textiles, structures, mechanical systems and electrical systems and programming
- The Subject Lead had attended training on leading cooking and nutrition lessons across the school practically, safely and creatively
- The Subject Lead delivered the above training to class teachers
- The school is now furnished with new resources that were recently ordered including hacksaws, project specific resources, a class set of kitchen utensils and other equipment and ingredients to deliver lessons effectively
- The whole school delivered cooking and nutrition lessons to promote 'Healthy Eating Week'

Year 1 Trip to Brooklands – March 2023

This is one of the Brooklands volunteers demonstrating how to make a metal aeroplane. He talked about the benefits of different metals, using rivets and showed them machines they used to joint the different parts together.



Aircraft Factory

McLaren Driven by Design Exhibition. This is a car made entirely from Lego.



Loopy Gliders workshop. Children learn about the science of flight and are shown how to design a paper glider.



1 Design

Think about your colours and patterns

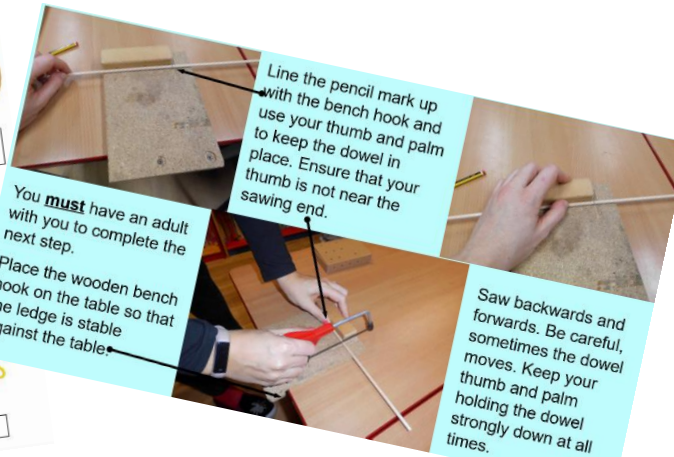
Red: a symbol of unity, strength and bravery.

Blue: a sign of energy, which also represents the sky.

Green: a symbol of health, which also represents the land.



Think about your materials and tools.



Teaching slides across the school

In November 1938, Chamberlain placed Sir John Anderson in charge of Air Raid Precautions (ARP). He immediately asked an engineer, William Patterson, to design a small, cheap shelter that could be put up in people's gardens.

The Anderson shelters were to protect people from debris and shrapnel.

Why do you think the roof of this Anderson shelter is curved?

Within a few months nearly one and a half million of what were known as Anderson shelters were distributed to people expected to be bombed.



Activity:

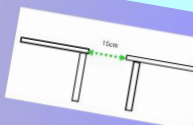
Anderson Shelters: Strength

Take a single piece of paper.

Your challenge is to make a bridge to cross a 15cm gap, using just a single piece of paper, which is as strong as possible.

Use books to test how strong your bridge is.

Try lots of different designs and think about how you can change the shape of the paper.



Once you have completed your first axle, repeat the process!

Measure two fingers on each side, draw a line and with an adult, carefully saw your dowel to the correct size.



Sand down the dowel, attach the wheels and slot the axle through the chassis.



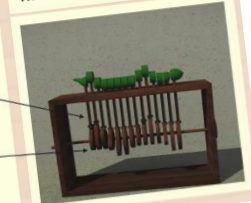
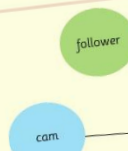
Components

Can you identify the cam?

Where is the rotary motion used?

Can you identify the follower?

Where is the linear motion used?



Healthy Eating Week



DT projects across the school



Design Brief:

Historically accurate

Seats for 6 lego men

Attractive to look at with a dragon head, tail, sail, oars and shields

Detachable dragon head

There must be 6 oars (on one side as it will be on display)

The sail must be red with white stripes

There must be between 4 and 6 shields

