



Design and Technology Medium Term Plan

OUR CORE VALUES

We want all of our children to BE...

Resilient

Respectful

Resourceful

Responsible

Risk-taking

INTENT

At Oaklands, we aim to inspire pupils to be innovative and creative thinkers who have an appreciation for the product design cycle through planning, creation and evaluation. We want pupils to develop the confidence to take risks, through drafting design concepts, modelling, testing and to be reflective learners who evaluate their work and the work of others. Through our lesson plans and resources, we aim to build an awareness of the impact of Design and Technology on our lives and encourage children to become resourceful, enterprising citizens who will have the skills to contribute to future design advancements.

Our unique curriculum, which uses Kapow's scheme as a framework, facilitates teachers to plan lessons that enable children to meet the objectives in line with the National Curriculum.

Reception						
Term	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Autumn 2 Structures: Boats	<ul style="list-style-type: none"> To understand what waterproof means and to test whether materials are waterproof. 	<ul style="list-style-type: none"> To test and make predictions for which materials float or sink. 	<ul style="list-style-type: none"> To compare the uses of boats. 	<ul style="list-style-type: none"> To investigate how the shape and structure of boats affects the way they move. 	<ul style="list-style-type: none"> To design a structure following a specific criteria 	<ul style="list-style-type: none"> To create a boat based upon their own design.
Spring 2 Textiles: Bookmarks	<ul style="list-style-type: none"> To develop threading and weaving skills. 	<ul style="list-style-type: none"> To practise and apply weaving skills to a specific material 	<ul style="list-style-type: none"> To practise and apply threading skills with specific material 	<ul style="list-style-type: none"> To use threading or sewing to design a product 	<ul style="list-style-type: none"> To create a textiles product (bookmark) following their own design 	<ul style="list-style-type: none"> To reflect with children on how they have achieved their aims.
Summer 2 Structures: Junk Modelling	<ul style="list-style-type: none"> To explore and investigate the tools and materials in the junk modelling area. 	<ul style="list-style-type: none"> To develop scissor skills. To investigate cutting different materials. 	<ul style="list-style-type: none"> To learn how to plan and select the correct resources needed to make a model. 	<ul style="list-style-type: none"> To verbally plan and create a junk model. 	<ul style="list-style-type: none"> To share a finished model and talk about the processes in its creation. 	<ul style="list-style-type: none"> To explore different ways to temporarily join materials together.

Year 1						
Term	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Autumn 2 Structures: Windmill	<ul style="list-style-type: none"> To understand the purpose and function of windmills 	<ul style="list-style-type: none"> To create a stable structure. 	<ul style="list-style-type: none"> To use tools and equipment accurately to make part of a structure. 	<ul style="list-style-type: none"> To join parts of a structure. 	<ul style="list-style-type: none"> To embellish my structure 	<ul style="list-style-type: none"> To evaluate a structure.
Spring 2 Textiles: Puppets	<ul style="list-style-type: none"> To design a puppet and use a template. 	<ul style="list-style-type: none"> To use a template to create my design. 	<ul style="list-style-type: none"> To join fabrics together using different methods. 	<ul style="list-style-type: none"> To join two fabrics together accurately. 	<ul style="list-style-type: none"> To embellish my design using joining methods. 	<ul style="list-style-type: none"> To evaluate the success of a product.
Summer 2 Cooking and Nutrition: Smoothies	<ul style="list-style-type: none"> To recognise and identify fruits. 	<ul style="list-style-type: none"> To describe where fruits and vegetables grow. 	<ul style="list-style-type: none"> To practise food preparation skills. 	<ul style="list-style-type: none"> To select ingredients for a recipe. 	<ul style="list-style-type: none"> To apply food preparation skills to a recipe. 	<ul style="list-style-type: none"> To evaluate against the design brief.

Year 2						
Term	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Autumn 2 Cooking and Nutrition: Balanced Diet	<ul style="list-style-type: none"> To recognise foods and their food groups. 	<ul style="list-style-type: none"> To identify the balance of food groups in a meal. 	<ul style="list-style-type: none"> To identify an appropriate piece of equipment to prepare a given food. 	<ul style="list-style-type: none"> To select balanced combinations of ingredients. 	<ul style="list-style-type: none"> To design based on criteria. 	<ul style="list-style-type: none"> To evaluate a dish based on design criteria.
Spring 2 Mechanical Systems: Fairground Wheel	<ul style="list-style-type: none"> To explore wheel mechanisms and design a Ferris wheel. 	<ul style="list-style-type: none"> To select appropriate materials. 	<ul style="list-style-type: none"> To build and test a moving wheel. 	<ul style="list-style-type: none"> To build and test a moving wheel. 	<ul style="list-style-type: none"> To make and evaluate a structure with a rotating wheel. 	<ul style="list-style-type: none"> To participate in a gallery, walk and make suggestions to my peers
Summer 2 Textiles: Pouches	<ul style="list-style-type: none"> To design a product and use a template. 	<ul style="list-style-type: none"> To sew a running stitch. 	<ul style="list-style-type: none"> To sew a running stitch. 	<ul style="list-style-type: none"> To join fabrics using a running stitch. 	<ul style="list-style-type: none"> To decorate a pouch using fabric glue or stitching. 	<ul style="list-style-type: none"> To evaluate the success of a product

Year 3						
Term	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Autumn 2 Textiles: Cushions	<ul style="list-style-type: none"> To explore and evaluate cushions. 	<ul style="list-style-type: none"> To identify and design key features of a product. 	<ul style="list-style-type: none"> To understand the purpose of a template. 	<ul style="list-style-type: none"> To develop understanding of sewing techniques. 	<ul style="list-style-type: none"> To consolidate understanding of sewing techniques. 	<ul style="list-style-type: none"> To evaluate the success of a product.
Spring 2 Cooking and Nutrition: Eating Seasonally	<ul style="list-style-type: none"> To understand how to prepare food safely 	<ul style="list-style-type: none"> To understand where food comes from. 	<ul style="list-style-type: none"> To identify seasonal vegetables. 	<ul style="list-style-type: none"> To identify the features of a recipe. 	<ul style="list-style-type: none"> To understand how to follow a recipe. 	<ul style="list-style-type: none"> To evaluate the success of a product.
Summer 2 Structures: Constructing a castle	<ul style="list-style-type: none"> To use my knowledge and apply my understanding on castles. 	<ul style="list-style-type: none"> To identify features of a castle. 	<ul style="list-style-type: none"> To understand the design specification of a castle. 	<ul style="list-style-type: none"> To apply my knowledge to construct a castle. 	<ul style="list-style-type: none"> To apply my knowledge to construct a castle. 	<ul style="list-style-type: none"> To participate in a gallery, walk and make suggestions to my peers.

Year 4						
Term	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Autumn 2 Mechanical Systems: Making a slingshot car	<ul style="list-style-type: none"> To explore and evaluate slingshot cars 	<ul style="list-style-type: none"> To create design criteria for a product. 	<ul style="list-style-type: none"> To understand that the shape of a moving object will affect how it moves due to air resistance. 	<ul style="list-style-type: none"> To make a model based on a chosen design. 	<ul style="list-style-type: none"> To assemble and test my completed product. 	<ul style="list-style-type: none"> To evaluate the success of a product.
Spring 2 Cooking and Nutrition: Adapting a recipe	<ul style="list-style-type: none"> To identify ingredients in a recipe. 	<ul style="list-style-type: none"> To develop understanding to follow a recipe 	<ul style="list-style-type: none"> To research ingredients for adapting a recipe 	<ul style="list-style-type: none"> To design a product to a given budget. 	<ul style="list-style-type: none"> To identify key features of suitable packaging for a product. 	<ul style="list-style-type: none"> To apply knowledge and skills when following an adapted recipe.
Summer 2 Structures: Pavillions	<ul style="list-style-type: none"> To use my knowledge and apply the knowledge to create a structure. 	<ul style="list-style-type: none"> To identify the features of a pavilion. 	<ul style="list-style-type: none"> To develop understanding on the benefits of different shaped frame structures 	<ul style="list-style-type: none"> To apply my knowledge to create a frame structure. 	<ul style="list-style-type: none"> To understanding the effect of cladding on a structure. 	<ul style="list-style-type: none"> To explore the effect of decoration on a pavilion.

Year 5						
Term	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Autumn 2 Electrical Systems: Electronic greeting cards	<ul style="list-style-type: none"> To explore and evaluate electronic greeting cards 	<ul style="list-style-type: none"> To create design criteria for a product. 	<ul style="list-style-type: none"> To understand how to create a design to meet design criteria 	<ul style="list-style-type: none"> To apply my knowledge to create an electronic greeting card. 	<ul style="list-style-type: none"> To apply my knowledge to create an electronic greeting card. 	<ul style="list-style-type: none"> To understand how to incorporate an electrical element into a greeting card
Spring 2 Cooking and Nutrition: What could be healthier?	<ul style="list-style-type: none"> To understand where food comes from. 	<ul style="list-style-type: none"> To explore the term 'healthy'. 	<ul style="list-style-type: none"> To understand how to adapt a traditional recipe. 	<ul style="list-style-type: none"> To develop knowledge of food packaging. 	<ul style="list-style-type: none"> To apply knowledge of healthy food to create a food product. 	<ul style="list-style-type: none"> To evaluate the success of a product.
Summer 2 Textiles: Stuffed Toys	<ul style="list-style-type: none"> To apply my knowledge to create a fabric toy. 	<ul style="list-style-type: none"> To follow design criteria to design a stuffed toy. 	<ul style="list-style-type: none"> To develop understanding of stitch techniques. 	<ul style="list-style-type: none"> To evaluate the effect when adding detail to a product. 	<ul style="list-style-type: none"> To apply my knowledge of sewing techniques to assemble a product. 	<ul style="list-style-type: none"> To evaluate the success of a product.

Year 6						
Term	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Autumn 2 Bags	<ul style="list-style-type: none"> To explore how pattern pieces are used to design and make fabric items. 	<ul style="list-style-type: none"> To design a bag and based on a target criteria 	<ul style="list-style-type: none"> To use pattern piece templates to shape, cut and stitch fabric. 	<ul style="list-style-type: none"> To create a prototype bag from a design sketch. 	<ul style="list-style-type: none"> To assemble a prototype 	<ul style="list-style-type: none"> To add appendages to a bag. To evaluate the success of a product
Spring 2 Cooking and Nutrition: Come dine with me	<ul style="list-style-type: none"> To research the ingredients for a three-course meal. 	<ul style="list-style-type: none"> To identify the components of a three-course meal. 	<ul style="list-style-type: none"> To apply my knowledge to prepare a starter using a recipe. 	<ul style="list-style-type: none"> To apply my knowledge to prepare a main course using a recipe. 	<ul style="list-style-type: none"> To apply my knowledge to prepare a dessert using a recipe. 	<ul style="list-style-type: none"> To evaluate the success of a range of products.
Summer 2 Structures: Playgrounds	<ul style="list-style-type: none"> To explore and evaluate playgrounds 	<ul style="list-style-type: none"> To design a playground with a variety of structures. 	<ul style="list-style-type: none"> To develop understanding on the benefits of different shaped structures 	<ul style="list-style-type: none"> To apply my understanding of measuring, marking and cutting to create a range of structures 	<ul style="list-style-type: none"> To apply my understanding of measuring, marking and cutting to create a range of structures 	<ul style="list-style-type: none"> To evaluate the success of a range of products.