

DT - Year 1

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].

National Curriculum Objectives

Design

Pupils should be taught to design purposeful, functional, appealing products for themselves and other users based on design criteria.

Make

Pupils should be taught to select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]

Evaluate

Pupils should be taught to explore and evaluate a range of existing products.

Technical Knowledge

Pupils should be taught to build structures, exploring how they can be made stronger, stiffer and more stable.

I can ...

I can make simple plans before making my object e.g drawing.

I can choose and describe the materials I need.

I can use scissors safely.

I can explain what I am making.

I can say what I like and something I could change.

I can make a product that moves.

I can explain how it works.

I can make a structure more stable.

I can talk about my own work and things that other people have done.

Suggested projects - a robot and a boat

As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating. Instilling a love of cooking in pupils will also open a door to one of the great expressions of human creativity. Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life.

I can wash my hands and make sure that surfaces are clean.

I can talk about how to prepare food safely.

I can mix food together.

I can identify what foods are healthy.

I can describe the texture of my food.

Suggested food - Breakfast Pots

DT - Year 2

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].

National Curriculum Objectives

Design

Pupils should be taught to generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.

Make

Pupils should be taught to select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics

Evaluate

Pupils should be taught to evaluate their ideas and products against design criteria.

Technical Knowledge

Pupils should be taught to explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.

I can ...

I can talk about what I want my product to look like.

I can design my product using pictures, diagrams and words before making it.

I can choose the best tools and materials and explain why.

I can join materials and components together in different ways.

I can explain how an axle makes a wheel turn.

I can refer to my design when making my object.

I can talk about what is good about my product and what I could improve on.

I can add an axle and wheels to my model so that it moves.

I can complete a set of simple running stitches.

Suggested products -Christmas stocking and car with axle and wheels.

As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating. Instilling a love of cooking in pupils will also open a door to one of the great expressions of human creativity. Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life.

I know some healthy food options.

I can cut soft foods safely and accurately.

I can use a range of implements to cut and spread.

I can talk about the types of food needed for my meal.

I am hygienic in the kitchen.

Suggested food - sandwiches

DT - Year 3

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, school, leisure, culture, enterprise, industry and the wider environment].

National Curriculum Objectives

Design

Pupils should be taught to research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.

Make

Pupils should be taught to select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately.

Evaluate

Pupils should be taught to investigate and analyse a range of existing products.

Pupils should be taught to evaluate their ideas and products against their own design criteria

Technical Knowledge

Pupils should be taught to apply their understanding of how to strengthen, stiffen and reinforce more complex structures.

Pupils should be taught to understand and use mechanical systems in their products (e.g. gears, pulleys, cams, levers and linkages)

I can ...

I can look at a range of designs before deciding on my own.

I can describe my design using an accurately labelled sketch.

I can explain why I have chosen my design.

I can use equipment and tools accurately.

I can explain what I have changed that has improved my design.

I can select the correct tools and techniques for a design.

I can make a product which uses mechanical components.

I can work accurately to make cuts and holes.

I can choose and use appropriate materials for the task.

I can discuss how to make a material stronger or stiffer and understand why this is sometimes important.

Suggested projects - 3D pop up cards (cards with mechanism), a bag with handles

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Pupils should understand and apply the principles of a healthy and varied diet.

Pupils should prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.

I can select ingredients that are healthy.

I can choose the right ingredients for a product.

I can use equipment safely including an oven.

I can explain how my combined ingredients come together.

I can make my product look attractive.

Suggested food -Pizza

DT - Year 4

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National Curriculum Objectives

Design

Pupils should be taught to research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.

Make

Pupils should be taught to select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately.

Evaluate

Pupils should be taught to investigate and analyse a range of existing products.

Pupils should be taught to evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.

Technical Knowledge

Pupils should be taught to apply their understanding of how to strengthen, stiffen and reinforce more complex structures.

Pupils should be taught to understand and use electrical systems in their products (for example, series circuits incorporating switches, bulbs, buzzers and motors)

I can ...

I can research products to help me choose my own design.

I can discuss how I want to create my product using existing products as a starting point.

I can produce a detailed plan and explain it to others.

I can choose appropriate tools and materials and explain my reasoning.

I can adapt my design if I need to.

I can take account of the ideas of others when designing.

I can evaluate my product thinking of both appearance and functionality.

I can create a circuit and add components to it.

I can measure carefully so that I don't make mistakes.

I can use a range of advanced techniques to cut, shape and mould.

I am confident about trying out new ideas and different materials.

Suggested projects - Lighthouse incorporating a working light, a bolsa wood boat

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Pupils should understand and apply the principles of a healthy and varied diet.

Pupils should prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.

Pupils should understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.

I know what to do to be hygienic and safe.

I can chop, slice and grate accurately and safely.

I know how to present my product in an interesting way.

I can grow plants such as cress and herbs from seed and use them for my food product.

I can explain how some basic food types are produced.

I can discuss what need for a healthy and varied diet.

Suggested food :-Salads

DT - Year 5

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National Curriculum Objectives

Design

Pupils should be taught to generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.

Make

Pupils should be taught to select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.

Evaluate

Pupils should be taught to evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.

Pupils should be taught to understand how key events and individuals in design and technology have helped shape the world.

Technical Knowledge

Pupils should be taught to apply their understanding of how to strengthen, stiffen and reinforce more complex structures.

Pupils should be taught to understand and use mechanical systems in their products (e.g. gears, pulleys, cams, levers and linkages)

I can ...

I can discuss a range of ideas after collecting information.

I can produce a detailed step by step plan sometimes using ICT to help me.

I can explain how my product will appeal to other people.

I can keep checking that my product is the best it can be, and modify it if necessary.

I can explain why some materials are more suitable than others for my product.

I can incorporate levers and linkages into my design.

I know how to strengthen and reinforce materials appropriately.

I can think about what the user would want when choosing textiles.

I can think about how to make my product strong.

I can talk about some famous bridges and their designers.

I can complete a series of running stitch that are similar in length.

Suggested projects - a cushion, a model bridge with moving parts.

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Pupils should understand and apply the principles of a healthy and varied diet.

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Pupils should understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.

I know which ingredients will give a healthy meal.

I can explore ingredients in order to decide which will taste well together.

I can safely use a sharp knife to chop vegetables to similar sizes.

I can use a hob safely.

I can discuss which foods can be produced in the UK and which need to be imported.

I can work out the cost of a simple meal.

Suggested food:- Soup

DT - Year 6

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National Curriculum Objectives

Design

Pupils should be taught to generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.

Make

Pupils should be taught to select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.

Evaluate

Pupils should be taught to evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.

Pupils should be taught to understand how key events and individuals in design and technology have helped shape the world.

Technical Knowledge

Pupils should be taught to understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors].

Pupils should be taught to apply their understanding of computing to program, monitor and control their products.

I can ...

I can use the internet to find information, picking out relevant parts to use in my design.

I can draw my design and explain how it works using a range of information.

I can critique my and others work to improve a design.

I can use tools and materials precisely.

I can test and evaluate my final product.

I know whether I need more information to improve my product.

I can justify why I selected specific materials.

I can incorporate a switch into my design.

I can use different types of circuits in my design.

I can use computer aided technology in my design.

Suggested projects -design a track for the Bee Bot, a burglar alarm

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Pupils should understand and apply the principles of a healthy and varied diet.

Pupils should prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.

Pupils should understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.

I can complete market research to find out the most popular ingredients for a dish.

I can modify my recipe to make it a healthier option.

I can use a range of cooking skills to produce a nutritional meal.

I can explain how different foods should be stored.

I can talk about the types of food that can be grown in the UK during the different seasons.

I understand how a wide range of food groups are produced and understand why some are more expensive than others.

I can talk about organic foodstuff.

Suggested food - pasta and sauce.