

Langton Primary School

Design and Technology Curriculum – Key Stage 1



Learning Goals

Pupils should be taught to:

- 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
- 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
- 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.

Subject Element - Everyday Products

Everyday products are objects that are used routinely at home and school, such as a toothbrush, cup or pencil. All products are designed for a specific purpose. Name and explore a range of everyday products and describe how they are used.

Products can be improved in different ways, such as making them easier to use, more hardwearing or more attractive. Explain how an everyday product could be improved.

Vocabulary

Function, permanent, protection, purpose, shelter, structure, Temporary, axle, chassis, vehicle, wheel, attractive, cushion, hardwearing, improve, peg bag, pillowcase, product, slippers, tablecloth, tea cosy, tea towel, toiletry bag, greetings card, improve, product

Subject Element – Staying Safe

Rules are made to keep people safe from danger. Safety rules include always listening carefully and following instructions, using equipment only as and when directed, wearing protective clothing if appropriate and washing hands before touching food. Follow the rules to keep safe during a practical task. Hygiene rules include washing hands before handling food, cleaning surfaces, tying long hair back, storing food appropriately and wiping up spills. Work safely and hygienically in construction and cooking activities.

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Vocabulary

Hygiene, rule, Safety, tool, equipment

Subject Element – Generation of Ideas

Design criteria are the explicit goals that a project must achieve. Create a design to meet simple design criteria. Ideas can be communicated in a variety of ways, including written work, drawings and diagrams, modelling, speaking and using information and communication technology. Generate and communicate their ideas through a range of different methods.

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Vocabulary

Design, design criteria, drawing, frame, function, idea, label, material, plan, purpose, shape, Size, criteria, design, Diagram, Equipment, ingredient, instruction, label, method, picture, recipe, test, describe, label, bag tag, design, explore, talk, design criteria, labelled diagram, plan, sketch

Subject Element – Evaluation

A strength is a good quality of a piece of work. A weakness is an area that could be improved. Talk about their own and each other's work, identifying strengths or weaknesses and offering support.

Finished products can be compared with design criteria to see how closely they match. Improvements can then be planned. Explain how closely their finished products meet their design criteria and say what they could do better in the future.

Vocabulary

Change, criteria, difficulty, evaluate, evaluation, improve, strength, Weakness, success

Subject Element – Structures

Different materials can be used for different purposes, depending on their properties. For example, cardboard is a stronger building material than paper. Plastic is light and can float. Clay is heavy and will sink. Construct simple structures, models or other products using a range of materials.

Structures can be made stronger, stiffer and more stable by using cardboard rather than paper and triangular shapes rather than squares. A broader base will also make a structure more stable. Explore how a structure can be made stronger, stiffer and more stable.

Vocabulary

Appearance, construction, design, entry point, finish, functionality, joining, model, product, roof, safety, structure, tools, Wall, part, test, construct, frame, join,, joint, Stable, stiff, strengthen

Subject Element – Investigation

Specific tools are used for particular purposes. For example, scissors are used for cutting and glue is used for sticking. Select the appropriate tool for a simple practical task.

Different tools have characteristics that make them suitable for specific purposes. For example, scissors are used for cutting paper because they have sharp, metal blades that can cut through thin materials. Select the appropriate tool for a task and explain their choice.

Vocabulary

Attach, evaluate, strong, tool, Weak, chop, grate, grater, knife, mash, masher, peel, peeler, slice, tear

Subject Element – Materials for Purpose

Different materials are suitable for different purposes, depending on their specific properties. For example, glass is transparent, so it is suitable to be used for windows. Select and use a range of materials, beginning to explain their choices.

Properties of components and materials determine how they can and cannot be used. For example, plastic is shiny and strong but it can be difficult to paint. Choose appropriate components and materials and suggest ways of manipulating them to achieve the desired effect.

Vocabulary

Brick, Construction, fabric, rope, stick, tarpaulin, wooden cane, material, purpose, Property, use, decorative, embellishment, fabric, material, Textile, card, metal, plastic, property, stiff

Subject Element – Food Preparation and Cooking

Using non-standard measures is a way of measuring that does not involve reading scales. For example, weight may be measured using a balance scale and lumps of plasticine. Length may be measured in the number of handspans or pencils laid end to end. Measure and weigh food items using non-standard measures, such as spoons and cups.

Some ingredients need to be prepared before they can be cooked or eaten. There are many ways to prepare ingredients: peeling skins using a vegetable peeler, such as potato skins; grating hard ingredients, such as cheese or chocolate; chopping vegetables, such as onions and peppers and slicing foods, such as bread and apples. Prepare ingredients by peeling, grating, chopping and slicing.

Subject Element – Nutrition

Fruit and vegetables are an important part of a healthy diet. It is recommended that people eat at least five portions of fruit and vegetables every day. Select healthy ingredients for a fruit or vegetable salad.

A healthy diet should include meat or fish, starchy foods (such as potatoes or rice), some dairy foods, a small amount of fat and plenty of fruit and vegetables. Describe the types of food needed for a healthy and varied diet and apply the principles to make a simple, healthy meal.

Vocabulary

Ingredient, measure, preparation

Subject Element – Origins of Food

Some foods come from animals, such as meat, fish and dairy products. Other foods come from plants, such as fruit, vegetables, grains, beans and nuts. Sort foods into groups by whether they are from an animal or plant source.

Food comes from two main sources: animals and plants. Cows provide beef, sheep provide lamb and mutton and pigs provide pork, ham and bacon. Examples of poultry include chickens, geese and turkeys. Examples of fish include cod, salmon and shellfish. Milk comes mainly from cows but also from goats and sheep. Most eggs come from chickens. Honey is made by bees. Fruit and vegetables come from plants. Oils are made from parts of plants. Sugar is made from plants called sugar cane and sugar beet. Plants also give us nuts, such as almonds, walnuts and hazelnuts. Identify the origin of some common foods (milk, eggs, some meats, common fruit and vegetables)..

Vocabulary

Animal, diet, fish, flower, fruit, leaf, mixed, nut, plant, pulse, root, seed, shellfish, source, stem, vegan, vegetarian

Subject Element – Compare and Contrast

Two products can be compared by looking at a set of criteria and scoring both products against each one. Describe the similarities and differences between two products.

Vocabulary

Compare, different, Similar, similarity, Design, different, landmarks, motif, same, spots, Stripes, feature

Subject Element – Significant People

The importance of a product may be that it fulfils its goals and performs a useful purpose. Describe why a product is important.

Many key individuals have helped to shape the world. These include engineers, scientists, designers, inventors and many other people in important roles. Explain why a designer or inventor is important.

Vocabulary

Cath Kidston, brand, distinctive, fashion, homeware designer, inspire, textile, Vintage

To comply with the SEND Regulations and Disability Regulations 2014 and the Equality Act 2010 please see our school accessibility plan and the SEND information in the policies and SEND section of this website.