

Design Technology Knowledge Progression Overview

| Coverage and Progression | F1 | F2 | Yr 1 | Yr 2 | Yr 2 Exceeding |
|----------------------------------|--|--|--|---|---|
| Designing | <p>*statements in bold are <i>Development Matters</i></p> <p>I can choose the right resources to carry out my own plan.</p> <p>I can explore different materials freely, to develop my ideas about how to use them and what to make.</p> <p>I can develop my own ideas and then decide which materials to use to express them.</p> <p>I can create closed shapes with continuous lines and begin to use these shapes to represent objects.</p> <p>I can draw with increasing complexity and detail</p> <p>I can use drawing to represent ideas.</p> <p>I can talk about what I am making.</p> <p>I can use pictures, objects and experiences for ideas.</p> <p>I can follow my curiosity and interests to think about what I want to make/create.</p> <p>I can make/create following adult suggestions and ideas.</p> | <p>*statements in bold are <i>Development Matters</i></p> <p>I can create collaboratively, sharing ideas, resources and skills.</p> <p>I know how to use my own ideas, thoughts and feelings to create an outcome/product.</p> <p>I know what I am going to make and can talk about it before I make it.</p> <p>I know how to plan what I am going to make by drawing it first.</p> <p>I know what I am going to need.</p> <p>I know how to use a tick list to identify the resources I need for my product.</p> <p>I know how to follow step by step instructions for making a product modelled by an adult.</p> | <p>I know what product I am designing.</p> <p>I know who I am designing a product for.</p> <p>I am beginning know how to make my own design decisions.</p> <p>I know what I need to include in my design and why.</p> <p>I know how my product will work.</p> <p>I know how to communicate my ideas through talking and drawing.</p> | <p>I know how to make informed design decisions through the knowledge of existing products and drawing on my own experiences.</p> <p>I know what I want to do and can describe and explain how I may do it.</p> <p>I know and can explain the purpose of the product and how it will work.</p> <p>I know and can explain how it will be suitable for the user.</p> <p>I know how to use pictures, words, models, diagrams and ICT to develop and communicate my ideas.</p> <p>I know how to follow design criteria.</p> | <p>I know how to develop my own design criteria and use these to inform my ideas.</p> <p>I know how to generate realistic ideas, focusing on the needs of the user.</p> <p>I know how to make design decisions that take account of the availability of resources.</p> <p>I know how to use learning from mathematics to help design and make products that work.</p> |
| Vocab Designing | Make, picture, put, on top, next to, tall, short | Idea, use, plan, draw, need, instructions, first, next, more | Product, user, design, decisions, work, design criteria | Function, purpose, suitability, ideas, innovation | |
| Curriculum link Designing | EYFS Characteristics of Effective Teaching and Learning <ul style="list-style-type: none"> • playing and exploring – children investigate and experience things, and ‘have a go’ • active learning – children concentrate and keep on trying if they encounter difficulties, and enjoy achievements • creating and thinking critically – children have and develop their own ideas, make links between ideas, and develop strategies for doing things ELGs Fine Motor Skills ELG <ul style="list-style-type: none"> • Hold a pencil effectively in preparation for fluent writing – using the tripod grip in almost all cases; • Use a range of small tools, including scissors, paint brushes and cutlery; • Begin to show accuracy and care when drawing. Expressive Arts and Design Creating with Materials ELG <ul style="list-style-type: none"> • Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form, and function; • Share their creations, explaining the process they have used. | | NC Understanding contexts, users and purposes <ul style="list-style-type: none"> • work confidently within a range of contexts, such as imaginary, story-based, home, school, gardens, playgrounds, local community, industry and the wider environment • state what products they are designing and making • say whether their products are for themselves or other users • describe what their products are for • say how their products will work • say how they will make their products suitable for their intended users • use simple design criteria to help develop their ideas Generating, developing, modelling and communicating ideas <ul style="list-style-type: none"> • generate ideas by drawing on their own experiences • use knowledge of existing products to help come up with ideas • develop and communicate ideas by talking and drawing • model ideas by exploring materials, components and construction kits and by making templates and mock-ups • use information and communication technology, where appropriate, to develop and communicate their ideas | | |

| Coverage and Progression | F1 | F2 | Yr 1 | Yr 2 | Yr 2 Exceeding |
|-------------------------------|--|--|--|--|---|
| Making | <p>*statements in bold are <i>Development Matters</i></p> <p>I can work with others to manage large items</p> <p>I can use one-handed tools and equipment, for example making snips in paper with scissors</p> <p>I can use a comfortable grip with good control when holding pens and pencils.</p> <p>I can join different materials and explore different textures.</p> <p>I can use a variety of materials such as paper, card, playdough, paint and construction such as bricks and duplo.</p> <p>I am practicing using a hole punch.</p> <p>I am practising using mark making tools such as pencils, crayons, chalk and paint brushes.</p> <p>I am beginning to join materials using split pins, glue and selloptape.</p> <p>.</p> | <p>*statements in bold are <i>Development Matters</i></p> <p>I can develop my small motor skills so that I can use a range of tools competently, safely and confidently.</p> <p>I know how to handle and use simple hand tools effectively.</p> <p>I know how to cut with increasing accuracy along a line and on a curve.</p> <p>I know how to safely use a variety of materials, tools and techniques, experimenting with colour, design, form and function.</p> <p>I know how to select appropriate materials to make my outcome based on the given task.</p> <p>I know how to use junk modelling materials to create outcomes.</p> <p>I know how to follow step by step instructions independently for making a product modelled by an adult.</p> | <p>I know how to plan by suggesting what to do next.</p> <p>I know how to use tools and equipment safely and why.</p> <p>I know the importance of hygiene.</p> <p>I know how to use a range of materials and components.</p> <p>I know how to measure, mark out, cut and shape materials and components with support.</p> <p>I know how to assemble, join and combine materials and components from a selection.</p> <p>I know how to use finishing techniques to make my product look good.</p> | <p>I know the best tools and equipment to choose and can explain my choices.</p> <p>I know which materials and components would be most suitable for the product and can explain my choices.</p> <p>I know how to use tools and equipment safely and why.</p> <p>I know the importance of hygiene.</p> <p>I know how to measure, mark out, cut and shape materials and components.</p> <p>I know how to assemble, join and combine materials and components successfully in variety of ways.</p> <p>I know how to use appropriate finishing techniques, including those from art and design.</p> | <p>I know how to order the main stages of making.</p> <p>I Know how to measure, mark out, cut and shape materials and components with some accuracy.</p> <p>I know how to assemble, join and combine materials and components with some accuracy.</p> <p>I know how to apply a range of finishing techniques, including those from art and design, with some accuracy</p> |
| Vocab Making | Paper, card, playdough, paint, bricks construction, Duplo, scissors, snip, cut, hole punch, through, join, split pin, glue, stick | Accurate, safely, materials, create, instructions, first, next, join, fix | Plan, tools, equipment, safety, hygiene, material, component, measure, assemble, join, combine, finishing technique | Plan, tools, equipment, safety, hygiene, material, component, measure, assemble, join, combine, finishing technique | |
| Curriculum link Making | EYFS Characteristics of Effective Teaching and Learning <ul style="list-style-type: none"> • playing and exploring – children investigate and experience things, and ‘have a go’ • active learning – children concentrate and keep on trying if they encounter difficulties, and enjoy achievements • creating and thinking critically – children have and develop their own ideas, make links between ideas, and develop strategies for doing things ELGs Fine Motor Skills ELG <ul style="list-style-type: none"> • Hold a pencil effectively in preparation for fluent writing – using the tripod grip in almost all cases; • Use a range of small tools, including scissors, paint brushes and cutlery; • Begin to show accuracy and care when drawing. Expressive Arts and Design Creating with Materials ELG <ul style="list-style-type: none"> • Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form, and function; • Share their creations, explaining the process they have used. | | NC Planning <ul style="list-style-type: none"> • <i>plan by suggesting what to do next</i> • select from a range of tools and equipment, <i>explaining their choices</i> • select from a range of materials and components according to their characteristics Practical skills and techniques <ul style="list-style-type: none"> • follow procedures for safety and hygiene • use a range of materials and components, including construction materials and kits, textiles, food ingredients and mechanical components • measure, mark out, cut and shape materials and components • assemble, join and combine materials and components • use finishing techniques, including those from art and design | | |

| Coverage and Progression | F1 | F2 | Yr 1 | Yr 2 | Yr 2 Exceeding |
|-----------------------------------|---|---|---|---|--|
| Evaluating | I know what I want to do/make and which resources I need. I know which is the best area in nursery to go to. I can say what I have made/created | I can return and build on my previous learning, refining ideas and developing my ability to represent them. I know how to talk about what I am creating. I can say which materials I have used and how I made it. I can say what I like about what I have made/created. I can modify and change my ideas whilst I am making. | I know what products are. I know how to talk about my work and link it to what I was asked to do. I know what I might need to change during the making process to make the product more successful. I know what would make the finished product better. I know how to talk about existing products considering, use, materials, how they work, audience, where they might be used. I know how to talk about existing products and say what is and isn't good. | I know what went well, thinking about design criteria. I know what I would do differently to improve the product if I were to do it again and why. I know why design decisions have been made in existing products. I know how to talk about existing products considering: use, materials, how they work, audience and where they might be used. I know how to express a personal opinion. I know how to evaluate how good existing products are. | I know how to refer to my design criteria as I design and make. I know how to use my design criteria to evaluate my completed products. I know whether products can be recycled or reused. |
| Vocab Evaluating | Like, don't like, change, need | How, materials, like, dislike, evaluate, change, modify, improve, better | Improve, evaluate, judge, existing product, change, alter, purpose, product user, suitability, design criteria | Improve, evaluate, judge, existing product, change, alter, purpose, product user, suitability, design criteria | Like, don't like, change, need |
| Curriculum link Evaluating | EYFS Characteristics of Effective Teaching and Learning • <i>playing and exploring</i> – children investigate and experience things, and 'have a go' • <i>active learning</i> – children concentrate and keep on trying if they encounter difficulties, and enjoy achievements • <i>creating and thinking critically</i> – children have and develop their own ideas, make links between ideas, and develop strategies for doing things ELGs Fine Motor Skills ELG • Hold a pencil effectively in preparation for fluent writing – using the tripod grip in almost all cases; • Use a range of small tools, including scissors, paint brushes and cutlery; • Begin to show accuracy and care when drawing. Expressive Arts and Design Creating with Materials ELG • Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form, and function; • Share their creations, explaining the process they have used. | | NC Own ideas and products • talk about their design ideas and what they are making • make simple judgements about their products and ideas against design criteria • <i>suggest how their products could be improved</i> Existing products • what products are • who products are for • how products work • how products are used • where products might be used • what materials products are made from • what they like and dislike about products | | |

| Coverage and Progression | | F1 | F2 | Yr 1 | Yr 2 | Yr 2 Exceeding |
|--------------------------|---|--|--|---|--|---|
| Technical Knowledge | Mechanisms | I can explore objects in the environment inside with moving parts such as vehicles, animals, playdough cutter (like a pizza cutter), water wheel etc I can explore objects outside which move such as a ball, tricycle and say which direction it travels. With support I can join two pieces of card/paper using a hole punch and a split pin to make moving parts. | I know how to join two pieces of card/paper using a hole punch and a split pin to make moving parts with increasing independence. I know how to join two pieces of card/paper using a hole punch and a treasury tag to make moving parts with increasing independence. I know how to cut and join several pieces together to make a person, character or animal with moving parts. | I know what a mechanism is. I can name existing products which use a mechanism. I know what a slider is. I know what a slot is. I know that a slider moves from side to side or up and down. I know what a lever is. I know what a pivot is. I know that a lever moves in a curved direction. I know what a wheel is. I know that a wheel turns round. I know how to make vehicles with wheels using construction kits. | I know what a winding mechanism is. I know the working characteristics of materials and components. I know about the movement of wheels and axles. I know how to attach wheels to a chassis using an axle. | I know how mechanical systems such as levers create movement. |
| | Vocab Mechanisms | Move, names of objects which move, turn, around, forwards, backwards, sideways, join, parts, way, hole, hole punch, split pin | Together, fit, match, cut, parts, move, treasury tag | Mechanism, slider, slot, direction, movement, pivot, wheel, axle, components, joined | Winding mechanism, components, join, movement, wheel, axle, chassis | |
| | Structures/ Materials | I know how to balance blocks to build a tower. I can show increasing control over an object such as pushing and patting. I know how to push and pull apart larger construction pieces such as Duplo. I can build using blocks, bricks and open-ended resources such as tubes and boxes. | I know how to explore which materials to use when building structures such as houses and bridges (The three Little Pigs and The Three Billy Goats Gruff) I know how to explore testing different materials to evaluate whether they meet simple criteria. I know how to use construction kits requiring greater dexterity. | I know how to measure and join materials with some support. I know that materials have different properties. I know how to suggest ways to make a material/product stronger. | I know how to measure materials. I know that the properties of materials make them suitable/unsuitable for an identified purpose. I know how to join materials in different ways. I know how to use joining, rolling or folding to make a material/structure stronger I know how to use my own ideas to make a product stronger. | I know how to use learning from science to help design and make products that work. |
| | Vocab Structures/ materials | Balance, build, tower, push, pat, pull, on top, taller, bigger | Material, structure, house, bridge, span, strong, collapse, test, load, weight, construct | Structure, materials, properties, strong, weak, flexible, rigid, | Measure, suitable, unsuitable, purpose, joining, rolling, folding, stronger, weaker, stable, unstable | |
| | Textiles | I can thread beads onto a lace, pipe cleaner, uncooked spaghetti etc I can use a lacing card. I can weave ribbon in and out of objects such as a cooling rack or the fence. | I know that different materials and fabrics are used for different purposes eg wool for a jumper, rubber for wellies etc I know some different textiles. | I know how to measure, cut and join textiles to make a product, with some support. I know how to choose suitable textiles. | I know how to measure textiles. I know how to join textiles together to make a product, and explain how I did it. I know how to carefully cut textiles to produce accurate pieces. I know how to explain choices of textile I know that a 3D textile structure can be made from two identical fabric shapes. | I know that a single fabric shape can be used to make a 3D textiles product. |
| | Vocab Textiles | Thread, lace, weave, in, out | Material, fabric, textile | Textiles, fabric, join, template, sew | Measure, accurate, thread, needle, sew | |
| | Curriculum Link Mechanisms Structures/ Materials Textiles | EYFS Characteristics of Effective Teaching and Learning • playing and exploring – children investigate and experience things, and 'have a go' • active learning – children concentrate and keep on trying if they encounter difficulties, and enjoy achievements • creating and thinking critically – children have and develop their own ideas, make links between ideas, and develop strategies for doing things ELGs Fine Motor Skills ELG | | NC Making products work • about the simple working characteristics of materials and components • about the movement of simple mechanisms such as levers, sliders, wheels and axles • how freestanding structures can be made stronger, stiffer and more stable | | |

| | | <ul style="list-style-type: none"> • Hold a pencil effectively in preparation for fluent writing – using the tripod grip in almost all cases; • Use a range of small tools, including scissors, paint brushes and cutlery; • Begin to show accuracy and care when drawing. <p>Expressive Arts and Design Creating with Materials ELG</p> <ul style="list-style-type: none"> • Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form, and function; • Share their creations, explaining the process they have used. | | | | |
|--------------------------|------------------------------------|---|--|---|---|---|
| Coverage and Progression | | F1 | F2 | Yr 1 | Yr 2 | Yr 2 Exceeding |
| Technical Knowledge | Food and Nutrition | <p>*statements in bold are <i>Development Matters</i></p> <p>I know how to make healthy choices about food, drink, activity and toothbrushing.</p> <p>I know how to get my water/milk/ snack independently.</p> <p>I know to wash my hands before my snack, before lunch and after going to the toilet.</p> <p>I can talk about what I like to eat and drink including what's in my packed lunch or what I have at for a school lunch.</p> <p>I know how to use rollers and cutters in the playdough.</p> <p>I know how to use a knife safely to cut fruit and vegetables in the role-play.</p> <p>I know how to use jugs, scoops and spoons in the sand and water.</p> | <p>*statements in bold are <i>Development Matters</i></p> <p>I know how to manage my own needs such as personal hygiene.</p> <p>I know about the different factors that support my health and wellbeing such as healthy eating.</p> <p>I know if a food is a fruit or a vegetable.</p> <p>I know where and how some fruits and vegetables grow.</p> <p>I know about a variety of food linked to different curriculum areas and places around the world.</p> <p>I know the names of some fruits and vegetables.</p> <p>I know how to sort fruits and vegetables.</p> <p>I know the importance of a healthy lifestyle.</p> | <p>I know how to describe the textures of different food.</p> <p>I know the importance of washing hands and clean surfaces.</p> <p>I know how think of interesting ways to decorate food.</p> <p>I know where some foods come from, (i.e. plant or animal)</p> <p>I know and can describe differences between some food groups (i.e. sweet, vegetable etc.)</p> <p>I know how fruit and vegetables are healthy.</p> <p>I know how to cut, peel and grate.</p> | <p>I know what hygiene means and how to keep a hygienic kitchen</p> <p>I know the properties of ingredients and importance of varied diet.</p> <p>I know where food comes from (animal, underground etc.)</p> <p>I know how food is farmed, home-grown, caught</p> <p>I know what is meant by the 'eat well plate'</p> <p>I know the different groups of food.</p> <p>I know foods in each group.</p> <p>I know why there are different groups of food.</p> <p>I know what is meant by "five a day".</p> <p>I know how to cut, peel and grate with increasing confidence.</p> | <p>I know that a healthy diet is made up from a variety and balance of different food and drink, as depicted in The eatwell plate.</p> <p>I know that to be active and healthy, food and drink are needed to provide energy for the body.</p> |
| | Vocab Food and nutrition | Snack, eat, like, don't like, favourite, roll, cut, push, safe, squeeze, shape, press, pat, full, empty, half-full | Fruit, vegetable, sort, names for fruits and vegetables, describe, same, different, grow, healthy | Texture, soft, crunchy, hard, chewy, senses, hygiene, plants, animals, names for foods, healthy cut, chop, peel, grate | Nutrition, balanced diet, healthy, farmed, home-grown, caught, carbohydrates, dairy, fruit, vegetables, fats sugars, food group | |
| | Curriculum Link Food and nutrition | <p>EYFS</p> <p>Characteristics of Effective Teaching and Learning</p> <ul style="list-style-type: none"> • playing and exploring – children investigate and experience things, and 'have a go' • active learning – children concentrate and keep on trying if they encounter difficulties, and enjoy achievements • creating and thinking critically – children have and develop their own ideas, make links between ideas, and develop strategies for doing things <p>ELGs</p> <p>Fine Motor Skills ELG</p> <ul style="list-style-type: none"> • Hold a pencil effectively in preparation for fluent writing – using the tripod grip in almost all cases; • Use a range of small tools, including scissors, paint brushes and cutlery; • Begin to show accuracy and care when drawing. <p>Expressive Arts and Design Creating with Materials ELG</p> <ul style="list-style-type: none"> • Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form, and function; • Share their creations, explaining the process they have used. | | <p>NC</p> <p>Where food comes from</p> <ul style="list-style-type: none"> • that all food comes from plants or animals • that food has to be farmed, grown elsewhere (e.g. home) or caught <p>Food preparation, cooking and nutrition</p> <ul style="list-style-type: none"> • how to name and sort foods into the five groups in The eatwell plate • that everyone should eat at least five portions of fruit and vegetables every day • how to prepare simple dishes safely and hygienically, without using a heat source • how to use techniques such as cutting, peeling and grating | | |