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| **Navigation Primary DT Knowledge Map** | |
| **EYFS DT in continuous provision** | |
| **Indoor** | * Deconstructed role play * Fine motor activities to build finger dexterity * Creative areas with a wide range of open-ended materials accessible at all times * Investigation encouraged eg: colour mixing, experimenting with textures * Children encouraged to create with a purpose in mind * Open ended questions and resources * Real tools – children taught skills and then independently use screw drives, hand drills, nails and screws * Real items to deconstruct eg: coffee machine, toaster * Small parts trolley * Cooking and teaching on using real tools eg: pumpkin carving, baking gingerbread men, make sandwiches |
| **Outdoor** | * Construction area with large bricks, real guttering/piping/crates * Real steering wheels/tyres/ships wheel etc to encourage purposeful and imaginative building * Large blackboards and white boards * Children encouraged to create with a purpose in mind * Open ended questions and resources * Large textiles available for investigation and play * Small parts trolley |
| **See EYFS Full Skills Curriculum document links**  ***NB: yellow relates to nursery*** | |
| Page 3 - Sand  Page 4 – Dough  Page 6 – Mark Making  Page 9 – Using scissors to cut  Page 10 – Pencil control  Page 12 – Drawing  Page 15 & 16 – Communication  Page 17 – Block play  Page 18 – Coil  Page 19 - Mould  Page 21 – Colour mixing  Page 22 – Sticking  Page 23 – Extend  Page 24 – Bury  Page 25 -Enclose | |

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| **EYFS** | | | | |
| Nursery | Personal, Social and Emotional Development | | | * Select and use activities and resources, with help when needed. This helps them to achieve a goal they have chosen or one which is suggested to them. |
| Physical Development | | | * Use large-muscle movements to wave flags and streamers,   paint and make marks.   * Choose the right resources to carry out their own plan. * Use one-handed tools and equipment, for example, making snips in paper with scissors. |
| Understanding the World | | | * Explore how things work. |
| Expressive Arts and Design | | | * Make imaginative and complex ‘small worlds’ with blocks and construction kits, such as a city with different buildings and a park. * Explore different materials freely, in order to develop their ideas about how to use them and what to make. * Develop their own ideas and then decide which materials to use to express them. * Create closed shapes with continuous lines, and begin to use these shapes to represent objects. |
| Reception | Physical Development | | | * Progress towards a more fluent style of moving, with   developing control and grace.   * Develop their small motor skills so that they can use a range of   tools competently, safely and confidently.   * Use their core muscle strength to achieve a good posture   when sitting at a table or sitting on the floor. |
| Expressive Arts and Design | | | * Explore, use and refine a variety of artistic effects to express   their ideas and feelings.   * Return to and build on their previous learning, refining ideas   and developing their ability to represent them.   * Create collaboratively, sharing ideas, resources and skills. |
| ELG | | Physical Development | Fine  Motor Skills | * Use a range of small tools, including scissors, paintbrushes and cutlery. |
| Expressive Arts and Design | Creating  with Materials | * 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. |

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| **EYFS** | • Make imaginative and complex ‘small worlds’ with blocks and construction kits, such as a city with different buildings and a park.  • Explore different materials freely, in order to develop their ideas about how to use them and what to make.  • Develop their own ideas and then decide which materials to use to express them.  • Create closed shapes with continuous lines, and begin to use these shapes to represent objects  Explore, use and refine a variety of artistic effects to express their ideas and feelings.  • Return to and build on their previous learning, refining ideas and developing their ability to represent them.  • Create collaboratively, sharing ideas, resources and skills.  Creating with Material-  • 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. | | | | |
| **Year Group** | **Design** | **Make** | **Evaluate** | **Technical Knowledge** | **Cooking and nutrition** |
| **1** | I know how to design a simple product e.g. healthy breakfast, playground and a moving picture.  I know one example of a designer or maker for each of my products. | I know how to make a product e.g. moving parts including different levers and slides with support.  I know how to make moving a character towards an object.  I know how to cut and join selected and strengthen materials by myself e.g. flange and pivot. | I know what I like about the model/example.  I know how to evaluate my product, including expressing why I like it and I can suggest one way to improve it. | I know the following vocabulary: sliders, levers, mechanism, strengthen. | I know how to use cutting and grating apparatus with support e.g. chopping fruit.  I know how to prepare a simple healthy breakfast e.g. making a smiley face fruit porridge bowl.  I know where food comes from.  I know how to work hygienically and safely. |
| **2** | I know how to a make simple plan with sketches e.g. for a textile puppet, moving vehicle and a healthy snack.    I know what makes an effective product and use this in my design (why it works well, why it looks good).  I know an example of a designer or maker for each of my products. | I know how to strengthen joins with an increasing number of materials including card, straw, paper, fabric.  I know how to cut and measure materials to use in my own model.  I know how to make a moving product with wheels and axles. | I know what I like and dislike about the model/example.  I know how to explain what went well when making my product referring to the function.  I know how to suggest ways to improve my product. | I know the following vocabulary: stiffen, reinforce, joins, material, strength by myself, fixed, unfixed, axle, wheel, plan, product. | I know how to work hygienically and safely.  I know how to prepare a dish using a range of cooking skills e.g. spring rolls by grating, cut, slicing, mixing, rolling.  I know what makes a healthy snack.  I know what makes a balanced diet. |
| **Year Group** | **Design** | **Make** | **Evaluate** | **Technical Knowledge** | **Cooking and nutrition** |
| **3** | I know how to research and develop design criteria to help design a product e.g. shell structures, a healthy treat and a card with a moving part.  I know how to experiment and techniques with a range of materials before making my product.  I know how to label sketches to explain my ideas.  I know how to use CAD to create a design.  I know about famous designers linked to my topic. | I know how to use a range of tools independently to cut and join materials with support.  I know how to use a range of materials and say how it helps the function of my product and why it looks aesthetically pleasing.  I know how to use the following mechanisms in my product: levers and linkages. | I know how to evaluate the appearance and function against set criteria.  I know how to improve my work from feedback. | I know the following vocabulary: moulding, stiffen, reinforce, aesthetic, material, levers, linkages, marking out, scoring, shaping, tabs, adhesives, joining. | I know where ingredients come from.  I know how to work hygienically and safely.  I can make healthy treat. |
| **Year Group** | **Design** | **Make** | **Evaluate** | **Technical Knowledge** | **Cooking and nutrition** |
| **4** | I know how to research and develop design criteria to help design a product e.g. torches/lanterns, savoury lunch and a textile pencil case.  I know how to label detailed sketches to explain my ideas e.g. showing the tools, materials I will use.  I know how my planning is linked to the use of materials available.  I know how to evaluate designs linked to my project. | I know how to use a greater range of tools independently to cut and join materials independently.  I know how to use a wide range of materials e.g. cardboard, felt, thread.  I know how to use the following mechanism as part of my product: electrical circuit incorporating bulb, battery, wires, switches.  I understand and know how use electrical systems in my product. | I know how to evaluate the appearance and function against set criteria e.g. Does my pencil case hold a pen, pencil and ruler securely? Can the light from the electrical circuit be seen through the window of the lantern?  I know how to improve my work from feedback and suggest improvements to my work and that of others. | I know the following vocabulary: reinforce, aesthetic, material, cut, shape, join, cams. | I know how to work safely and hygienically.  I can make a savoury lunch product e.g. pizza, breads which rise.  I know where food is grown or reared. |
| **Year Group** | **Design** | **Make** | **Evaluate** | **Technical Knowledge** | **Cooking and nutrition** |
| **5** | I know how to research and develop design criteria to help design a product (a healthy tea, bridge structure and a moving fairground ride).  I know how to label detailed sketches to explain my ideas.  I know how to experiment with materials and use it to inform my planning.  I know how to develop design criteria and can say if my product fits this.  I know the name of famous designers linked to my topic and a famous piece of design. | I know how to use a range of tools independently to cut, join, shape and finish materials with support e.g. stanley knives, glue guns.  I know how to manipulate a wider range of materials, such as corrugated cardboard, confidently.  I know how to improve my work from feedback and suggest improvements to my work and that of others.    I know how to use pulleys as part of my product. | I know how to evaluate the appearance and function against set criteria.  I know how to improve my work from feedback and suggest improvements to my work and that of others. | I know and can use the following vocabulary: pulley, gears, saw, glue gun, function, appeal, pulleys. | I know how to work safely and hygienically.  I know how to make a healthy dinner. E.g. soup and flat breads.  I know which foods are seasonal, such as rhubarb and strawberries in the summer and cabbage and sprouts in the winter. |
| **Year Group** | **Design** | **Make** | **Evaluate** | **Technical Knowledge** | **Cooking and nutrition** |
| **6** | I know how to research and develop design criteria to help design a product (phone case, alarm system and empanada.)  I know how to create functional that focus on a design brief i.e. phone case, alarm system and empanada.    I know how to use diagrams and represent electrical connection and code in sketches. | I know how to use a greater range of tools independently to cut, join, shape finish materials independently.  I can use a variety of stitching techniques to join fabric i.e. back stitch, whip stitch.  I know how to use the following inputs and outputs as part of my product: push switch, light sensors, ultrasonic sensors, buzzers, LEDs e.g. making an alarm. | I know how to investigate the development of famous design and existing products i.e. early alarm systems, existing recipes.  I know how to evaluate the appearance and function against set criteria. | I know and can use the following vocabulary: function, appeal, gears, micro controller, ultra sonic sensor, push switch, light sensor, selection if/else statements control, program, system, input device, output device, regional/seasonal ingredients. | I know how to make a healthy take away i.e. empanadas.  I know how to work hygienically.  I know how to select my own ingredients based on my preferences i.e. taste testing veg/spices/herbs. |