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| **Design and Technology Knowledge Overview**  | **Unit Questions** | **National Curriculum Key Knowledge**  | **Project Outline Focus and Skills**  | **Key vocabulary** | **Outcome** |
| **EYFS****Nursery** | Lets explore – (what do I like to do best?)All that glitters(I can explore what I can see and feel)Weather (What is it like to be warm and cold?)Traditional tales(What do my taste buds and nose tell me?)Pirates(What can I feel and touch?)Growing(How do things change when they grow?) | Early Learning Goals:- Physical development (Fine Motor) Use a range of small tools, including scissors, paintbrushes and cutlery.Expressive Arts and Design (Creating with Materials):- safely use and explore a ranges of materials, tools and techniques, experimenting with colour, design, texture, form and function. Share their creations, explaining the process they have used.**Characteristics of effective learning**Show curiosity about objects, events and peopleQuestions why things happenEngage in open-ended activityThinking of ideasFind ways to solve problems / find new ways to do things / test their ideasUse senses to explore the world around themCreate simple representations of events, people and objectsPlanning, making decisions about how to approach a task, solve a problem and reach a goalChecking how well their activities are goingChanging strategy as neededReviewing how well the approach worked**Design*** I can select materials from a limited range that meet a simple design criteria prompted by an adult, ie shiny
* I can respond to an adults suggestion of what to make.
* I can say what I want to make when I am playing.
* I can explore ideas by rearranging materials.

**Make*** I can use glue to join materials together with support.
* I can use adapted scissors with support to make snips in paper.
* I can sew onto a card using lace.
* I can use glue to join materials together with increasing independence.
* I can use scissors with support to cut along a straight line.
* I can use a large plastic needle to sew with support.
* I can use tape to join things together with support
* I can use scissors with increasing independence to cut along a straight line.
* I can attempt to thread a large plastic needle.

**Evaluate*** I can tell you some of the things that I have created when playing. Such as a tower, a car etc
* I can rebuild something when playing to improve it if it falls down or doesn’t work.
* I can talk about what I have made naming some of the resources and simple techniques used with support.

**Technical knowledge*** Structures
* I can explore building simple towers and similar structures with support. (wooden blocks)
* Mechanisms
* I can explore a variety of toys showing interest in how they move. (Flaps, doors, leavers etc)
* Structures
* I can explore building towers and other structures using other kinds of construction kits with support.
* (wooden blocks, duplo, magnetic construction)
* Mechanisms
* I can create a moving vehicle out of duplo or magnetic construction.
* Structures
* I can independently create towers and buildings by stacking and connecting bricks together.
* Mechanisms
* I can use a variety of construction toys that have wheels in them to create a vehicle that can move with some guidance.

**Cooking and nutrition*** I can wash my hands before participating in food experience with support.
* I can explore a range of tools in the dough area, such as rolling pins, cutters, dough wheels.
* I can begin to explore some familiar foods in the role play area when playing.
* I can wash my hands before a food experience with increasing independence.
* I can use a spoon to mix and a knife to spread with support.
* I can use a rolling pin and dough cutter with support.
* I can wash my hands independently when prompted to do so.
* I can use a knife to spread and a spoon to stir with increased independence.
* I can attempt to peel my own fruit, satsuma, banana.
* I can show increased strength and control when using a rolling pin and dough cutter.
 | Building houses using boxes and blocks, cutting and joining.Playdough houses and self portraitsUsing textured materials to create imagesCutting and printing with food.Queens birthday picnic preparationCreating animal homes and habitatsCards to celebrate occasions.Food/snack preperation | StickJoinCutBuildConstructSize vocabBetterNext timeI like | Early Learning Goals:- Physical development (Fine Motor) Use a range of small tools, including scissors, paintbrushes and cutlery.Expressive Arts and Design (Creating with Materials):- safely use and explore a ranges of materials, tools and techniques, experimenting with colour, design, texture, form and function. Share their creations, explaining the process they have used. |
| **EYFS****Reception***DT is part of the statutory framework in EYFS. It is part of EAD and PD.*  | Colours(What can I see changing)Cold(Who likes the cold?)Extinct(What happened to the dinosaurs?)Heroes and villains(Can villains be heroes)Gods World(Who are my woodland neighbours?)Its good to be me(How can I be the best I can be?) | Early Learning Goals:- Physical development (Fine Motor) Use a range of small tools, including scissors, paintbrushes and cutlery.Expressive Arts and Design (Creating with Materials):- safely use and explore a ranges of materials, tools and techniques, experimenting with colour, design, texture, form and function. Share their creations, explaining the process they have used.**Characteristics of effective learning**Show curiosity about objects, events and peopleQuestions why things happenEngage in open-ended activityThinking of ideasFind ways to solve problems / find new ways to do things / test their ideasUse senses to explore the world around themCreate simple representations of events, people and objectsPlanning, making decisions about how to approach a task, solve a problem and reach a goalChecking how well their activities are goingChanging strategy as neededReviewing how well the approach workedSkills from the curriculum (hierarchical) DesignI can select materials from a limited range that fit a particular criteria, such as shiny with independence.I can select and name the tools needed to work the materials eg scissors for paper.I can explain what I am making and which materials I am using.I can discuss my work as it progresses.MakeI can use a hammer with support. I can use scissors independently to cut along a line.I can use glue (prit stick and PVA)and sellotape to join materialsI can use a hammer to hammer a large headed nail.I can use scissors to cut out a shape with curved sides.I can use a hole punch to make holes in paper.I can explore other ways of joining with support, treasury tags, split pins.I can use a hammer safely to hammer a nail into wood.I can select my own method of joining materials.I can use scissors with care to cut a variety of shapes and materials.EvaluateI can talk with confidence about some things that I have made naming the resources and showing some understanding of the techniques that I have used.I can rebuild something when playing to improve it if it falls down or doesn’t work.I can talk about what I have made naming some of the resources and simple techniques used with support.Technical knowledgeStructuresI can explore building simple towers and similar structures with support. (wooden blocks)MechanismsI can explore a variety of toys showing interest in how they move. (Flaps, doors, leavers etc)StructuresI can explore building towers and other structures using other kinds of construction kits with support.(wooden blocks, duplo, magnetic construction)MechanismsI can create a moving vehicle out of duplo or magnetic construction.StructuresI can independently create towers and buildings by stacking and connecting bricks together.MechanismsI can use a variety of construction toys that have wheels in them to create a vehicle that can move with some guidance.Cooking and nutritionI can wash my hands before participating in food experience with support.I can explore a range of tools in the dough area, such as rolling pins, cutters, dough wheels.I can begin to explore some familiar foods in the role play area when playing.I can wash my hands before a food experience with increasing independence.I can use a spoon to mix and a knife to spread with support.I can use a rolling pin and dough cutter with support.I can wash my hands independently when prompted to do so.I can use a knife to spread and a spoon to stir with increased independence.I can attempt to peel my own fruit, satsuma, banana.I can show increased strength and control when using a rolling pin and dough cutter. | Collage using a variety of materialsFirework art – different mediasChristmas cards – joining, cutting, sticking, designingBaking for Xmas, hand washing, using tools, planning, evaluatingRubbings using different mediaPlaydough fossil exploration, digging, cover, printingModels using different mediaBuilding fairytale housesMaking food for picnics | ShapePatternColourTextureDescribeWeighMeasureTextureMixing DesignMakeEvaluate | Early Learning Goals:- Physical development (Fine Motor) Use a range of small tools, including scissors, paintbrushes and cutlery.Expressive Arts and Design (Creating with Materials):- safely use and explore a ranges of materials, tools and techniques, experimenting with colour, design, texture, form and function. Share their creations, explaining the process they have used.  |
| Horizontal VerticalDesignPurposeTextureTasteSweetSourJoinCutBetterImproveNext time |
| **Year 1** **Who am I, who can I be and how do I belong?** | **Autumn 2****Our World**How can I understand the world and my place in it? | **Developing, planning and communicating ideas****Working with tools, equipment, materials and components to make quality products (including food)** **Evaluating processes and products****Food Technology Knowledge** | Enterprise - something they can sell to parents/give to charity**Textiles** | DesignStencilEquipmentFinal DesignMind MapPatternSketchMaterialJoin |  Sock Hand Puppet |
| **Spring 2****The Elements**How have people harnessed the power of the elements? | Topic/ Curriculum linked**Model making** | ScissorsShapingDesigningRulerSlidersMechanismsPlanningEvaluationMaterialsJoiningModellingPlasticMetalSketch | Make a boat that floats Captain cook topic link |
|  | **Summer 2** **Oh what a wonderful world**How do I understand my locality and the changes I see? | Incidental**Food technology** | CutKnifeSafetyHealthFruitIngredientsfruit and vegetable names, names of equipment and utensils sensory vocabulary e.g. soft, juicy, crunchy, sweet, sticky, smooth, sharp, crisp, sour, hard flesh, skin, seed, pip, core, slicing, peeling, cutting, squeezing, healthy diet, choosing | Make a fruit salad |
| **Year 2**How do we change the world around us? Why should we care for our world? | **Autumn 2****Our World**How can I understand the world and my place in it? | **Developing, planning and communicating ideas**Generate ideas by drawing on their own and other people's experiences Develop their design ideas through discussion, observation , drawing and modelling Identify a purpose for what they intend to design and make Identify simple design criteria Make simple drawings and label parts**Working with tools, equipment, materials and components to make quality products (including food)** Begin to select tools and materials; use vocab' to name and describe themMeasure, cut and score with some accuracy Use hand tools safely and appropriately Assemble, join and combine materials in order to make a product Cut, shape and join fabric to make a simple garment. Use basic sewing techniques Follow safe procedures for food safety and hygiene Choose and use appropriate finishing techniques**Evaluating processes and products**Evaluate against their design criteria Evaluate their products as they are developed, identifying strengths and possible changes they might make Talk about their ideas, saying what they like and dislike about them**Food Technology Knowledge**Understand where a range offruit and vegetables comefrom e.g. farmed or grown athome.Understand and use basicprinciples of a healthy andvaried diet to prepare dishes,including how fruit andvegetables are part of *The**eatwell plate*.Know and use technical andsensory vocabulary relevantto the project. | Enterprise - something they can sell to parents/give to charity**Food technology** | names of equipment and utensils sensory vocabulary e.g. soft, juicy, crunchy, sweet, sticky, smooth, sharp, crisp, sour, hard flesh, skin, seed, pip, core, slicing, peeling, cutting, squeezing, healthy diet, choosing, ingredients | Cakes- design and make - Christmas theme |
| **Spring 2****The Elements**How have people harnessed the power of the elements? | Topic/ Curriculum linked**Model** | NetTabsConstructionScoringPropertiesTestingComponents ListResearchLabellingDevelopmentModify | Design and Make a house – Wooden Houses Great Fire of London |
| **Summer 2****Oh what a wonderful world**How do I understand my locality and the changes I see? | Incidental**Clay modelling** | MouldSlipJoinCandle holderDesignMakeEvaluate  | Candle/ tea light holders |
| **Year 3** How has the world around us shaped us as communities? | **Autumn 2**How has Britain’s climate and topography affected human activity from the stone age to the iron age? | **Developing, planning and communicating ideas**Generate ideas for an item, considering its purpose and the user/s Identify a purpose and establish criteria for a successful product. Plan the order of their work before starting Explore, develop and communicate design proposals by modelling ideas Make drawings with labels when designing**Working with tools, equipment, materials and components to make quality products (including food)** Select tools and techniques for making their product Measure, mark out, cut, score and assemble components with more accuracy Work safely and accurately with a range of simple tools Think about their ideas as they make progress and be willing change things if this helps them improve their work Measure, tape or pin, cut and join fabric with some accuracy Demonstrate hygienic food preparation and storage Use finishing techniques strengthen and improve the appearance of their product using a range of equipment including ICT**Evaluating processes and products**Evaluate their product against original design criteria e.g. how well it meets its intended purpose Disassemble and evaluate familiar products **Food Technology Knowledge**Know how to useappropriate equipment andutensils to prepare andcombine food.Know about a range offresh and processedingredients appropriate fortheir product, and whetherthey are grown, reared orcaught.Know and use relevanttechnical and sensoryvocabulary appropriately. | Enterprise - something they can sell to parents/give to charity**Product**  | Market researchEnterpriseCharitySellFunctionTarget audienceProductname of products, names of equipment, utensils, techniques and ingredients texture, appearance, preference, greasy, moist | Salt dough Christmas decorations |
| **Spring 2**How has Britain’s climate and topography affected human activity from the stone age to the iron age? | Topic/ Curriculum linked**Model making** | PlanAnnotationsCriteriaDesign ProposalEngineeringTessellationsReclaimed MaterialsFrameworkMechanismMark OutFunctionDisassemblyAnnotated DiagramHillfort | Design and make a hillfort |
| **Summer 2**How did the British landscape impact on the Roman invasion and how did the Romans impact on Britain and the British? | Incidental**Textiles with a function** | AestheticsPrototypeNeedlesRunning StitchFunctionMock-UpDraw stringRomans | Make a draw string purse (Romans)  |
| **Year 4** Are we stronger if we are together? | **Autumn 2**What did the Anglo-Saxons bring to Britain? | **Developing, planning and communicating ideas**Generate ideas, considering the purposes for which they are designing Make labelled drawings from different views showing specific features Develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making, if the first attempts fail Evaluate products and identify criteria that can be used for their own designs**Working with tools, equipment, materials and components to make quality products (including food)** Select appropriate tools and techniques for making their product Measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques Join and combine materials and components accurately in temporary and permanent ways Sew using a range of different stitches, weave and knit**Evaluating processes and products**Evaluate their work both during and at the end of the assignmentEvaluate their products carrying out appropriate tests**Food Technology Knowledge**Know how to useappropriate equipment andutensils to prepare andcombine food.Know about a range offresh and processedingredients appropriate fortheir product, and whetherthey are grown, reared orcaught.Know and use relevanttechnical and sensoryvocabulary appropriately. | **Enterprise - something they can sell to parents/give to charity****Product**Target audience- Christmas gift | Market researchEnterpriseCharitySellFunctionTarget audienceProduct | A freestanding photo frame |
| **Spring 2**What did the Vikings bring to Anglo-Saxon Britain? | Topic/ Curriculum linked**Model making** |  | Anglo Saxon Village – round house |
| **Summer 2**How have the cities of York and New York been shaped by people coming together? | Incidental**Food technology** | HygieneSeasonalitySavouryPreparationEatwell GuideFood Groupsname of products, names of equipment, utensils, techniques and ingredients texture, taste, sweet, sour, hot, spicy, appearance, smell, preference, greasy, moist, cook, fresh, savoury, hygienic, edible, grown, reared, caught, frozen, tinned, processed, seasonal, harvested healthy/varied diet | Making biscuits with Viking shield design  |
| **Year 5** How can people come together to shape the world around them? | **Autumn 2**How has ancient Greece helped to shape the modern Western World? | **Developing, planning and communicating ideas**Generate ideas through brainstorming and identify a purpose for their product Draw up a specification for their design Develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making if the first attempts fail Use results of investigations, information sources, including ICT when developing design ideas**Working with tools, equipment, materials and components to make quality products (including food)** Select appropriate materials, tools and techniques Measure and mark out accurately Use skills in using different tools and equipment safely and accurately weigh and measure accurately (time, dry ingredients, liquids) Apply the rules for basic food hygiene and other safe practices e.g. hazards relating to the use of ovens Cut and join with accuracy to ensure a good-quality finish to the product**Evaluating processes and products**Evaluate a product against the original design specification Evaluate it personally and seek evaluation from others **Food Technology Knowledge**Know how to use utensilsand equipment including heatsources to prepare and cookfood.Understand aboutseasonality in relation to foodproducts and the source ofdifferent food products.Know and use relevanttechnical and sensoryvocabulary. | Enterprise - something they can sell to parents/give to charity**Model with moving part** | Market researchEnterpriseCharitySellFunctionTarget audienceProduct | Greet Card – pop up/ sliding doors |
| **Spring 2**How has the suffrage movement shaped our country since 1066? | Topic/ Curriculum linked**Textiles** |  | Decorative works based on The Bayeux Tapestry depicting an episode in the development of British parliamentary democracy. |
| **Summer 2**How is the movement for environmental change shaping our world? | Incidental**Food technology** | MeasureWeighing ScaleProportionVaried DietRearedProcessedingredients, yeast, dough, bran, flour, wholemeal, unleavened, baking soda, spice, herbs fat, sugar, carbohydrate, protein, vitamins, nutrients, nutrition, healthy, varied, gluten, dairy, allergy, intolerance, savoury, source, seasonality utensils, combine, fold, knead, stir, pour, mix, rubbing in, whisk, beat, roll out, shape, sprinkle, crumble | Plan and create a celebration buffet for Y6 leavers. |
| **Year 6** How can individual people shape the world around them? | **Autumn 2**Who was Charles Darwin and how did he change the world? | **Developing, planning and communicating ideas**Communicate their ideas through detailed labelled drawings Develop a design specification Explore, develop and communicate aspects of their design proposals by modelling their ideas in a variety of ways  Plan the order of their work, choosing appropriate materials, tools and techniques**Working with tools, equipment, materials and components to make quality products (including food)** Select appropriate tools, materials, components and techniques Assemble components make working models Use tools safely and accurately Construct products using permanent joining techniques Make modifications as they go along Pin, sew and stitch materials together create a productAchieve a quality product**Evaluating processes and products**Evaluate their products, identifying strengths and areas for development, and carrying out appropriate tests Record their evaluations using drawings with labels Evaluate against their original criteria and suggest ways that their product could be improved**Food Technology Knowledge**Know how to use utensilsand equipment including heatsources to prepare and cookfood.Understand aboutseasonality in relation to foodproducts and the source ofdifferent food products.Know and use relevanttechnical and sensoryvocabulary. | Enterprise - something they can sell to parents/give to charity**Food Technology** | Market researchEnterpriseCharitySellFunctionTarget audienceProductingredients, yeast, dough, bran, flour, wholemeal, unleavened, baking soda, spice, herbs fat, sugar, carbohydrate, protein, vitamins, nutrients, nutrition, healthy, varied, gluten, dairy, allergy, intolerance, savoury, source, seasonality utensils, combine, fold, knead, stir, pour, mix, rubbing in, whisk, beat, roll out, shape, sprinkle, crumble | Pizza |
| **Spring 2**How did Howard Carter change the world? | Topic/ Curriculum linked**Model making**– papier mache | ModelMakeAssembleDesignMakeEvaluateTextureMixCreate | Design and make an Eygyption mask Balloons and paper mache |
| **Summer 2**How did Wiliam Wilberforce, Rosa Parks, Martin Luther King, Paul Stephenson, Floella Benjamin. Amelia Gentlemen and David Lammy shape the world we live in? | Incidental**Textiles** | TextilesMaterialsDesignMakeEvaluateSocial justiceBannerPoster | Use of textiles in social justice and protest movements e.g. ‘Kick it Out’ Children create textile banners |