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| DT Progression Map | | | | | | |
| **Product evaluation** | | | | | | |
| EYFS | Year One | Year Two | Year Three | Year Four | Year Five | Year Six |
| SKILLS  - Explore how things work. | SKILLS  - Name and explore a range of everyday products and describe how they are used.  - Describe similarities and differences between two products.  - Describe why a product is important.  KNOWLEDGE  - Know that products can be compared by looking at a set of criteria and scoring both products against each other.  - Know that the importance of a product may be that it fulfils its goals and performs a useful purpose. | SKILLS  - Explain how an everyday product could be improved.  - Compare different or the same products from the same or different brands.  - Explain why an inventor or designer is important.  KNOWLEDGE  - Know that there are many home products made from fabric.  - Give some examples of fabric-based products in the home including cushions, curtains, blinds and carpets.  - Know that products can be improved in different ways, such as making them easier to use, more hardwearing or more attractive.  - Know that a brand is a name, term, design or symbol identifying a seller’s product or service. | SKILLS  - Explain how an existing product benefits the user.  - Explain the similarities and differences between the work of two designers.  - Describe how key events in design and technology have shaped the world.  KNOWLEDGE  - Know that particular products are designed for specific tasks. For example, a product designed to help grow plants will require certain materials.  - Know that work from different designers can be compare by assessing specific criteria, such as their visual impact, fitness for purpose and target market.  - Know some key inventions that have changed the way people live. | SKILLS  - Investigate and identify the design features of a familiar product.  - Create and complete a comparison table to compare two or more products.  - Explain how and why significant designers or inventors have shaped the world.  KNOWLEDGE  - Know that design features are the aspects of a product’s design that the designer would like to emphasise.  - Know that a comparison table is an organised way to compare products.  - Know about Louis Pasteur and how he advanced preservation methods.  - Know that William Morris was a significant contributor to the revival of traditional British textile arts and methods of production. | SKILLS  - Explain how the design of a product has been influenced by the culture or society in which it was designed or made.  - Survey users in a range of focus groups and compare results.  - Describe the social influence of a significant designer of inventor.  KNOWLEDGE  - Know that the design of products needs to take into account the culture of the target audience.  - Know that ancient Greeks developed the Classical form of architecture that has been copied for thousands of years.  - Know that evaluations can be made by asking product users a selection of questions to obtain data on how the product has meet its design criteria.  - Know about the Roman, Vitruvius, and his impact on building. | SKILLS  - Analyse how an invention or product has significantly changed or improved people’s lives.  - Create a detailed comparative report about two or more products or inventions.  - present a detailed account of the significance of a favourite designer or inventor.  KNOWLEDGE  - Know that Make Do and Mend was a campaign run by the Ministry of Information during WWII to encourage people to recycle and repurpose their old clothes rather than buy new.  - Know that processed food is changed during preparation and includes processes such as cooking, freezing, pasteurising or the addition of ingredients.  - Know that processed foods can be convenient and increase availability, but often lack nutrients and mat contain unhealthy ingredients.  - Know that products and inventions can be compared using a range of criteria, such as impact on society, ease of use and value for money.  - Know about significant engineers and bridges. |

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| **Structures** | | | | | | |
| SKILLS  - Make imaginative and complex ‘small worlds’ with blocks and construction kits, such as a city with different buildings and a park.  - Make enclosed spaces and shapes such as walls, tunnels, and houses. | SKILLS  - Construct simple structures, models or other products using a range of materials.  KNOWLEDGE  - Know that different materials can be used for different purpose, depending on their properties.  - Know that a shelter is a structure designed to give protection from weather or danger. | SKILLS  - Explain how a structure can be made stronger, stiffer and more stable.  KNOWLEDGE  - Know that structures can be made stronger, stiffer and more stable by using cardboard rather than paper and triangular shapes rather than squares. | SKILLS  - Create shell or frame structures using diagonal struts to strengthen them.  KNOWLEDGE  - Know that diagonal struts create triangular shapes within a frame structure.  - Know that adding diagonal struts to a frame structure adds strength and stability. |  | SKILLS  - Build a framework using a range of materials to support mechanisms.  KNOWLEDGE  - Know that support, stiffness and stability can be created by sing triangular shapes to create strong frameworks, columns to support roofs and overlapping brickwork patterns.  - Know that mechanisms and systems can work together to perform a function.  - Know that a strong and stable structure is necessary to support mechanisms in a machine. | SKILLS  - Select the most appropriate materials and frameworks for different structures, explaining what makes them strong.  KNOWLEDGE  - Know that strength can be added to a framework by using multiple layers or changing its shape.  - Know that triangles do not collapse or distort easily and so are used in architecture to provide support and stability.  - Know that bridge structures have changed over time due to factors such as technology, design innovation and new and better access to materials. |
| **Mechanisms** | | | | | | |
| SKILLS  - Explore how things work. | SKILLS  - Use wheels and axles to make a simple moving model.  KNOWLEDGE  - Know that an axle is a rod that is connected to the centre of a wheel, allowing it to turn.  - Know that a chassis is the frame of a vehicle.  - Know that an axle fixed to a chassis has freely moving wheels.  - Know that a freely moving axle has fixed wheels. |  | SKILLS  - Explore and use a range of mechanisms (levers, sliders, axles, wheels and cams) in models or products.  KNOWLEDGE  - Know that cams are devices that can convert circular motion into up and down motion.  - Know that the cam is fixed to the axle and the follower sits on the cam.  - Know that when the axle is rotated the follower moves up and down.  - Know that different shaped cams produce different patterns of movement in the follower. | SKILLS  - Explore and use a range of mechanisms (levers, axles, cams, gears and pulleys) in models or products.  KNOWLEDGE  - Know that simple machines make physical jobs easier by changing the strength or direction of a force.  - Know that there are 6 simple machines: pulley, lever, wheel and ale, wedge, inclined plane and screw.  - Know that simple machines can be combined to make complex, compound machines, e.g., a wheelbarrow combines a lever with a wheel and axle. | SKILLS  - Use mechanical systems in their products, such as pneumatics.  KNOWLEDGE  - Know that a pneumatic system uses compressed ait to exert a force.  - Know that pneumatic systems can be used to lift heavy loads, raise and lower platforms or soften a force by acting as a shock absorber. |  |

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| **Textiles** | | | | | | |
| SKILLS  - Sew a series of running stitches. |  | SKILLS  - Use different methods of joining fabrics, including glue and running stitch.  - Add simple decorative embellishments, such as buttons, prints and sequins.  KNOWLEDGE  - Know that a running stitch is a basic stitch used to join two pieces of fabric.  - Know that an embellishment is a decorative detail or feature added to something to make I more attractive. |  | SKILLS  - Hand sew a hem or seam using a running stitch.  - Create detailed decorative patterns on fabric using printing techniques.  KNOWLEDGE  - Know that a hem runs along the edge of a piece of cloth or clothing and that it is made by turning the raw edge and sewing to give a neat finish.  - Know that block printing and fabric print are used to create decorative, repeated patterns on fabrics. |  | SKILLS  - Pin and tack fabrics in preparation for sewing and more complex pattern work.  - Use different methods of fastening for function and decorations, including press studs, Velcro and buttons.  KNOWLEDGE  - Know that pinning with dressmaker pins and tacking with quick, temporary stitches holds fabric together in preparation for and during sewing.  - Know that fastening hold a piece of clothing together and that types include zips, press studs, Velcro and buttons. |
| **Cooking and Nutrition** | | | | | | |
| SKILLS  - Stir, spread, knead and shape a range of food and ingredients. | SKILLS  - Measure and weigh food items using non-standard measures, such as spoons and cups.  - Select healthy ingredients for a fruit or vegetable salad.  - Sort foods into groups by whether they are from an animal or a plant.  KNOWLEDGE  - Know that peeling, slicing, chopping, grating, tearing or mashing are different methods of preparing foods.  - Know that it is recommended that people eat at least 5 portions of fruit and vegetable a day. | SKILLS  - Prepare ingredients by peeling, grating, chopping and slicing.  - Describe the types of food needed for a healthy and varied diet and apply the principles to make a simple, healthy meal.  - Identify the origins of some foods, e.g., milk, eggs, meats and some fruit and vegetables.  KNOWLEDGE  - Know that a recipe is a set of instructions for preparing and cooking a meal.  - Know that a healthy diet should include meat or fish, starchy foods, some dairy, a small amount of fat and plenty of fruit and vegetables. | SKILLS  - Prepare and cook a simple savoury dish.  - Identify the main food groups (carbohydrates, protein, dairy, fruit and vegetables, fats and sugars).  - Identify and name foods that are produced in different places.  KNOWLEDGE  - Know that 5 main food groups.  - Know that foods high in fat, sugar and salt should be eaten in moderation.  - Know that some foods will grow in particular areas depending on factors such as rainfall, climate and soil type. | SKILLS  - Identify and use a range of cooking techniques to prepare a simple meal or snack.  - Design a healthy snack or packed lunch and explain why it is healthy.  - identify and name foods that are produced in different places in the UK and beyond.  KNOWLEDGE  - Know that cooking techniques include baking, boiling, frying, grilling and roasting.  - Know that foods need packaging to keep them fresh, safe to eat and free from damage.  - Know that particular countries produce particular foods due to varying factors. | SKILLS  - Use an increasing range of preparation and cooking techniques to cook a sweet or savoury dish.  - Evaluate meals and consider if they contribute towards a balanced diet.  KNOWLEDGE  - Know that sweet dishes are usually desserts.  - Know that savoury dishes usually have a salty or spicy flavour not a sweet one.  - Know that a balanced diet gives your body all the nutrients it needs to function properly.  - Know that seasonality is the time of year when the harvest or flavour of a type o food is at its best.  - Know that buying seasonal food is beneficial for many reasons. | SKILLS  - Follow a recipe that requires a variety of techniques and source the necessary ingredients.  - Plan a healthy daily diet, justifying why each meal contributes towards a balanced diet.  - Explain how produce is grown.  KNOWLEDGE  - Know that food packaging provides important nutritional information about the food inside.  - Know whole foods have not been changed from their natural form.  - Know that organic foods are grown without the use of man-made fertilizers, pesticides or animal feed additives.  - Know that ingredients can usually be bought at a supermarket, but specialist shops stock specialist items.  - Know what greengrocers, butchers, fishmongers and delicatessens sell. |

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| **Design** | | | | | | |
| SKILLS  - 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 collaboratively, sharing ideas, resources and skills. | SKILLS  - Create a design to meet simple design criteria.  KNOWLEDGE  - Know that a product is usually guided by a set of design criteria.  - Know that the product must meet the design criteria to be successful. | SKILLS  - Generate and communicate their ideas through a range of different methods.  KNOWLEDGE  - Know that ideas can be communicated in a variety of ways, including written work, drawings and diagrams, modelling, speaking and using ICT. | SKILLS  - Develop design criteria to inform a design.  KNOWLEDGE  - Know that design criteria are the exact goals a project must achieve to be successful.  - Know that these criteria might include the product’s use, appearance, cost and target user. | SKILLS  - Use annotated sketches and exploded diagrams to test and communicate ideas.  KNOWLEDGE  - Know that annotated sketches and exploded diagrams show specific parts of a design, highlight sections or show functions. They communicate ideas in a visual, detailed way. | SKILLS  - Develop design criteria for a functional and appealing product that is fit for purpose, communicating ideas clearly in a range of ways.  KNOWLEDGE  - Know that ideas can be communicated in a range of ways, including through discussion, annotated sketches, cross-sectional and exploded diagrams and prototypes. | SKILLS  - Develop design criteria for a functional and appealing product that is fit for purpose, communicating ideas clearly in a range of ways.  KNOWLEDGE  - Know that ideas can be communicated in a range of ways, including through discussion, annotated sketches, cross-sectional and exploded diagrams and prototypes. |
| **Make** | | | | | | |
| SKILLS  - Choose the right resources to carry out their own plan.  - Use one-handed tools and equipment, for example, making snips in paper with scissors.  - Develop their small motor skills so that they can use a range of tools competently, safely and confidently.  - Use a range of small tools, including scissors, paintbrushes and cutlery.  - Join items using hot glue guns. Join items using hammers and nails. | SKILLS  - Select the appropriate tool for a simple practical task.  - Select and use a range of materials, beginning to explain their choices.  KNOWLEDGE  - Know that tools have characteristics that make them suitable for different purposes.  - Know that different materials are suitable for different purposes depending on their properties. | SKILLS  - Select the appropriate tools for a task and explain their choice.  - Choose appropriate components and materials and suggest ways of manipulating them to achieve the desired effect.  KNOWLEDGE  - Know that tools have characteristics that make them suitable for specific purposes. For example, a knife is good for cutting food because it has a sharp metal edge.  - Know that properties of components and materials determine how they can and cannot be used. | SKILLS  - Use tools safely for cutting and joining materials and components.  - Plan which materials will be needed for a task and explain why.  KNOWLEDGE  - Know that specific tools can be used for cutting, such as saw. Know that materials can be joined using glue, nails, staple or a combination of these.  - Know that materials for a specific task must be selected on the basis of their properties. Know that availability and cost also need to be considered. | SKILLS  - Select, name and use tools with adult supervision.  - Choose from a range of materials, showing an understanding of their different characteristics.  KNOWLEDGE  - Know that useful tools for cutting include scissors, craft knives, hacksaw etc.  - Know that useful tools for joining include glue guns.  - Know that characteristics of materials, such as rigidity and smoothness, will affect the success of a working model.  - Know some natural and synthetic fabrics. | SKILLS  - Name and select increasingly appropriate tools for a task and use them safely.  - Select and combine materials with precision.  KNOWLEDGE  - Know that there are many rules for tools safety and these vary depending on the tools.  - Know that all tools should be cleaned and put away after use, and should not be used if they are broken.  - Know that materials should be cut and combined with precision. | SKILLS  - Select appropriate tools for a task and use them safely and precisely.  - Choose the best materials for a task showing understanding of their working characteristics.  KNOWLEDGE  - Know that deconstructing garments identifies how they were made, the materials used and their properties.  - Know that hand stitches include running stitch, blanket stitch and whip stitch.  - Know that it is important to understand the characteristics of different materials to select the most appropriate one for a purpose. This includes, flexibility, waterproofing, cost and availability. |

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| **Evaluation** | | | | | | |
| SKILLS  - Share their creations, explaining the process they have used.  - Design, build, review and adapt my constructions to ensure they fit the purpose. | SKILLS  - Talk about their own and other’s work, identifying strengths or weaknesses and offering support.  KNOWLEDGE  - Know that a strength is something that is good about a piece of work.  - Know that a weakness is an area that could be improved. | SKILLS  - Explain how closely their finished products meet their design criteria and say what they could do better in the future.  KNOWLEDGE  - Know that a finished product can be checked against design criteria to see how successfully it has been made or to evaluate how well it works.  - Know that improvements can then be planned. | SKILLS  - Suggest improvements to their products and describe how to implement them, beginning to take the views of others into account.  KNOWLEDGE  - Know that asking questions can help others to evaluate their products, e.g., asking someone whether the material selected helped achieve the purpose of the model. | SKILLS  - Identify what has worked well and what aspects of their products could be improved, acting on their own suggestions and those of others when making improvements.  KNOWLEDGE  - Know that evaluation can be done by considering whether the product does what it was designed to do, whether it has an attractive appearance, what changes were made during the making process and why the changes were made. | SKILLS  - Test and evaluate products against detailed design specification and make adaptations as they develop the product.  KNOWLEDGE  - Know that testing a product against the design criteria will highlight anything that needs improvement or redesign. | SKILLS  - Demonstrate modifications made to a product as a result of ongoing evaluation by themselves and to others.  KNOWLEDGE  - Know that an iterative process starts with requirements and continues by creating a product, testing it and revising it before creating a better version.  - Know that the iterative process is a series of steps that are repeated, improving the product with each cycle. |
| **Health and Safety** | | | | | | |
| SKILLS  - Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.  - Work safely and show basic hygiene awareness. | SKILLS  - Follow the rules to keep safe during a practical task.  KNOWLEDGE  - Know that rules are made to keep people safe from danger.  - Know that safety rules include always listening carefully, following instructions and using equipment only when told to. | SKILLS  - Work safely and hygienically in construction and cooking activities.  KNOWLEDGE  - Know hygiene rules include washing hands before handling food, cleaning surfaces, tying long hair back, storing food appropriately and wiping up spills. | SKILLS  - Use appliances safely with adult supervision.  KNOWLEDGE  - Know that safety rules must followed when using electricity. Fingers and other objects must not be put into electrical sockets, anything with a cord or plug should never be used around water and a plug should never by pulled out by its cord. | SKILLS  - Work safely with everyday chemical products under supervision, such as disinfectant hand wash and surface cleaning spray.  KNOWLEDGE  - Know that chemicals are used in the home every day. They include cleaning products, such as bleach and disinfectant. | SKILLS  - Explain the functionality and purpose of safety features on a range of products.  KNOWLEDGE  - Know that safety features are often incorporated into products that might cause harm. E.g., child-safety caps on medicine bottles, covers for electrical sockets and seatbelts in cars. | SKILLS  - Demonstrate how their products take into account the safety of the user.  KNOWLEDGE  - Know that the safety of the user has to be taken into account when designing a new product. |

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| DT Vocabulary Progression | | | | | | | | | | |
| EYFS | * Instrument * Material * Discuss * Idea * Share * Test * Describe * Explain * Type * Different * Example * Design * Attach * Fabric * Protection * Strongest * Hessian | * Adapt * Change * Draw * Feel * Play * Sort * Talk * Try * Create * Model * Build * Choose * Tower * Breakfast * Food * Healthy * Ingredient | * Cooperate * Resource * Select * Vessel * Construct * Guttering * Tube * Bridge * Castle * Roof * Strong * Wall * Weigh * Mix * Scales * Knead | * Symmetrical * Bungalow * Flat * House * Size * Window * Door * Cut * Join * Feel * Smell * Most * Least * Photograph * Record | | | | | | |
| Year 1 | EFYS vocabulary plus   * Change * Improve * Criteria * Evaluate * Drawing * Frame * Function * Purpose * Shape * Test * Dairy * Animal * Leaf * Source | * Similar * Different * Success * Diagram * Safety * Tool * Hygiene * Rule * Permanent * Temporary * Weak * Meat * Fish * Plant * Stem | * Appearance * Construction * Entry Point * Finish * Functionality * Joining * Axle * Chassis * Vehicle * Wheel * Part * Fruit * Nut * Root | * Chop * Grate * Knife * Mash * Peel * Slice * Tear * Connect * Roll * Move * Brick * Vegetable * Flower * Seed | | | | * Rope * Stick * Fabric * Tarpaulin * Stitch * Running stitch * Bead * Button * Glue * Sequin * Flavour |  | |
| Year 2 | Year 1 vocabulary plus   * Dislike * Like * Product * Improvement * Plan * Sketch * Design criteria * Bag tag * Explore * Vegan * Vegetarian * Diet * Brand * Textile * Thread * Tie * Fixed Pivot * Force * Lever | * Equipment * Method * Picture * Recipe * Instruction * Stable * Stiff * Strengthen * Fork * Measuring spoon * Spots * Stripes * Motif * Distinctive * Vintage * Applique * Embellishment * Linkage * Machine * Mechanism | * Grip * Knife * Measure * Property * Purpose * Slice * Spread * Tongs * Stapler * Sewing pattern * Attractive * Cushion * Hardwearing * Fashion * Inspire * Printing * Component * Motion * Moving pivot * Slider mechanism | |  | |  | | | |
| Year 3 | Prior Vocabulary plus   * Evaluate * Health and safety * Plan * Bake * Barbecue * Boil * Cook * Deseed * Dice * Fry * Grill * Hob * Microwave * Prepare * Roast * Skin * Slow cooker * Steam | * Reflect * Dimension * Eatwell guide * Balanced * Calcium * Carbohydrate * Fibre * Food group * Nutrient * Nutrition * Oil * Protein * Vitamin * Food standards agency * Cloth * Interlace * Loom * Weave | * Weft * Warp * Yarn * Woven * Embellish * Pattern * Hacksaw * Hot glue gun * Triangular corner * Bench hook * G clamp * Butt joint * Reinforcing * Automaton toy * Cam * Elliptical cam * Follower * Heart cam * Hexagonal cam | | * Lever * Linkage * Machine * Off-centre circular cam * Pear cam * Rotational * Snail cam * Square cam * Biome * Conservatory * Style * Purpose * Supervision * Cloche * Cold Frame * Greenhouse * Diagonal strut * Frame structure | | | * Three-dimensional * Transparent * Plastic * Waterproof * Glass | |  |
| Year 4 | Prior Vocabulary plus   * Deconstruct * Net * Reconstruct * Exploded diagram * Prototype * Labelled diagram * Annotated sketch * Recycle * Compostable * Effort * First class * Second class * Third class * Cone * Cube * Cuboid * Hexagonal prism * Net * Triangular Prism | * Compound machine * Device * Simple machine * Programmable * Programmable device * Sensor * Switch * Home furnishing * Home product * Reuse * Fulcrum * Inclined plane * Screw * Load * Prototype * Blender * Crush * Press * Wash * Heat | * Tetra Pak * Tupperware * Bag * Bottle * Box * Can * Carton * Cling film * Polystyrene * Card/cardboard * Wedge * Fraying * Hem * Pinking shears * Sew * Block printing * Diamond | | * Tin * Tinfoil * Elasticity * Delicate * Durable * Versatile * Property * Rigid * Smooth * Pattern structure * Trellis * Wey | | | | | |
| Year 5 | Prior Vocabulary plus   * Blend * Dice * Puree * Raw * Sauté * Simmer * Kilocalorie * Kilojoule * Mineral * Salt * Saturated fat * Soup * Sugar * Seasonality * Sustainable * Fabric crumb * Actuator * Compress * Air pressure * Force * Hinge * Piston * Valve * Syringe | * Computer-aided design * Adjust design * Analysis * Deployment * Focus group * Iterative process * Heavy lifting equipment * Jack hammer * Machinery * Paint sprayer * Pneumatic machine * Pneumatic system * Framework * Column * Lintel * Post * Support * Roman builders * Prehistoric builders | * Brace * Lifting arm * Load * Strut * Baroque * Classical * Corinthian column * Doric column * Gothic * Industrial * Ionic column * Modernist * Postmodern * Renaissance * Ancient Egyptian * Architecture * Building * Caryatid * Entablature * Frieze * Pediment * Prehistoric * Temple | |  | | | | | |
| Year 6 | Prior Vocabulary plus   * Convenience food * Minimally processed * Ultra-processed * Unprocessed * Processed * Coding * Environmental variable * Light-emitting diode * Circuit component * Halve * Sprinkle * Store * Yeast * Dough | * Constructive feedback * Modification * Repurpose * Arch bridge * Beam bridge * Span * Suspension bridge * Truss bridge * Concertina * Investigation * Debug * Animal feed additive * Fertiliser * Labour intensive * Pesticide | * Accelerometer sensor * Appliance * Contact sensor * Level sensor * Light sensor * Mains * Motion sensor * Proximity sensor * Sound sensor * Temperature sensor * Organic * Whole food * Blouse * Garment * Repair | | | * Velcro * Blanket stitch * Fabric property * Fastening * Press stud * Whip stitch * Toggle * Seam | | | | |