Design & Technology Progression Map

		Pre Nursery	Nursery	Reception	Y1/2	Y3/4	Y5/6
Designing *Understanding contexts, users and purposes*				Design: Says what they are going to make first and what they want it to look like Creates objects for a given purpose	work confidently within a range of contexts, such as imaginary, story-based, home, school, gardens, playgrounds, local community, industry and the wider environment, story-based- The Tale of Peter Rabbit • 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 •draw and label a diagram of an axle, wheel and axle holder	Work confidently within a range of contexts, such as the home, school, leisure, culture, enterprise, industry and the wider environment Describe the purpose of their products-Static electricity game Indicate the design features of their products that will appeal to intended users-*interactive, educational, scientific, innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.* Explain how particular parts of their products work *(Static Electricity)* Gather information about the needs and wants of particular individuals and groups *(develop their own design criteria and use these to inform their ideas)* Understanding how pneumatic systems work	Work confidently within an 'enterprise' task Describe the purpose of their Juggling Bags Indicate the design features of their products that will appeal to intended users- *functional, appealing products that are fit for purpose, aimed at particular individuals or groups.* Carry out research Identify the needs, wants, preferences and values of particular individuals and groups Develop a simple design specification to guide their thinking
Generating, developing, modelling and communicating ideas					• 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 mockups • use information and communication technology, where appropriate, to develop and communicate their ideas	Share and clarify ideas through discussion *(class, group ,pairs)* Model ideas using prototypes and pattern pieces Use annotated sketches, cross-sectional drawings and exploded diagrams to develop and communicate their ideas Generate realistic ideas, focusing on the needs of the user Design a toy with a pneumatic system	Share and clarify ideas through discussion *(class, group ,pairs)* Model ideas using prototypes and pattern pieces Use annotated sketches, cross-sectional drawings and exploded diagrams to develop and communicate their ideas Generate innovative ideas, drawing on research and needs of the user Make design decisions, taking account of constraints such as time, resources and cost
Making *Planning*		Building blocks Stage 2: Stacking, Rows and Towers or Repetition Lines up blocks. Stacks blocks one on top of the other for a vertical tower. Lays them on the floor in rows.	Make: Building blocks Stage 3: Bridges and Passageways Experiments with creating bridges, with two blocks supporting. Experiments how to balance blocks. Uses imagination in construction, for example, props such as cars and trucks turn blocks in roads.	Make: Building blocks: stage 5 Symmetry and pattern Pieces are selected due to size and shape to add symmetry and pattern Cuts around circles, squares and images confidently, changing cutting direction and angle of hold	• plan by suggesting what to do next • select from a range of tools and equipment, explaining their choices • select from a range of materials and components • build a moving vehicle.	Select tools and equipment suitable for the task Explain choice of tools and equipment in relation to the skills and techniques using Explain their choice of materials and components according to functional properties and aesthetic qualities Chronologically order the main stages of making	Explain choice of tools and equipment in relation to the skills and techniques using Formulate step-by-step plans as a guide to making
Practical skills and techniques					• 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	Measure, mark out, cut and shape materials and components with some accuracy Assemble, join and combine materials and components with some accuracy apply a range of finishing techniques	Accurately measure, mark out, cut and shape materials and components Accurately assemble, join and combine materials and components Accurately apply a range of finishing techniques, including those from art and design

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					• assemble, join and combine materials and components • use finishing techniques, including those from Art and Design.		Demonstrate resourcefulness when tackling practical problems
Evaluating *Own ideas and products*				Evaluate: Shows pride in their creations, labelling them for safe keeping Reflects on their project and says what worked well	• talk about their design ideas and what they are making - Hand puppet • make simple judgements about their products and ideas against design criteria eg (cut more careful to create an accurate sized hand puppet) • suggest how their products could be improved	Identify the strengths and areas for development of ideas and products Consider the views of others, including intended users, to improve their work Refer to their design criteria as they design, make and completed product.	Identify the strengths and areas for development of ideas and products Consider the views of others by critically evaluating product against including intended user/s and specification to improve their work
Existing products					• what products are • who products are for • what 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	how well products have been designed how well products have been made how well products work how well products achieve their purposes how well products meet user needs and wants	To know: how well products have been designed how well products have been made how well products work and achieve their purposes how much products cost to make how sustainable the materials in products are
Key events and individuals						Know about inventor *(philosopher Thales of Miletus)* who have developed ground-breaking products	Work confidently within an 'enterprise' task Describe the purpose of their Juggling Bags Indicate the design features of their products that will appeal to intended users- *functional, appealing products that are fit for purpose, aimed at particular individuals or groups.* Carry out research Identify the needs, wants, preferences and values of particular individuals and groups Develop a simple design specification to guide their thinking
Where food comes from.							That food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle)
Food preparation, cooking and nutrition					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-Healthy Wraps How to use techniques such as cutting, peeling and grating	That recipes can be adapted to change the appearance, taste, texture and aroma-Tasty Biscuit Bake Off	How to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source- What could be healthier? Feed The School/ Healthy Bolognaise. How to use a range of techniques such as peeling, chopping, slicing, grating, mixing,
Technical Knowledge *Making Products work*			Technical knowledge: Relates tools to a specific purpose.	Technical knowledge: Knows when to use specific adhesives (glue stick – paper, PVA – heavier items) and does so effectively Knows that paper can be joined in several ways and uses this in their creations	Can textile products be made stronger? • that a 3-D textiles product can be assembled from two identical fabric shapes • the correct technical vocabulary for the projects they are undertaking		Know that a 3D textiles product can be made from a combination of fabric shapes