Progression Map - DT

Progression Strand	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Designing	Generate simple ideas through discussion and drawings. Design for themselves or a familiar user.	Generate ideas for a specific user. Use labelled drawings to communicate designs.	Generate several ideas considering purpose and user. Develop simple design criteria.	Produce annotated designs showing purpose, appearance and function.	Research existing products and users to develop detailed design criteria. Refine ideas through modelling and feedback.	Independently develop innovative designs that respond to a complex design brief, considering function, aesthetics and user needs.
Planning	Explain what they are going to make and select basic materials.	Plan the order of making and identify tools and materials needed.	Sequence the making process and select appropriate equipment independently.	Plan each stage of manufacture, considering accuracy and efficiency.	Adapt plans as work develops and justify changes made.	Produce detailed plans independently, selecting the most appropriate processes, tools and materials.
Making	Measure, mark out, cut, join and assemble using simple tools safely.	Measure more accurately and use a wider range of tools and joining techniques.	Use tools with increasing precision and accuracy to construct quality products.	Demonstrate greater control and precision when measuring, cutting, joining and finishing.	Select appropriate techniques according to the material and intended function.	Manufacture high-quality products accurately and independently using a range of techniques.

Evaluating	Talk about what they like about their product and suggest simple improvements.	Compare finished products with original designs and explain what worked well.	Evaluate products against simple design criteria and identify improvements.	Evaluate products against design criteria, considering the views of others where appropriate.	Test products and refine designs to improve functionality and quality.	Critically evaluate products throughout the design process using testing, evidence and user feedback.
Technical Knowledge	Understand that structures need to be stable and products have a purpose.	Understand how wheels and axles work and how structures can be strengthened.	Understand how mechanisms and reinforcement improve products.	Understand how frame structures, textiles and food products are constructed.	Understand how materials, forces and mechanical systems affect product performance.	Apply technical knowledge confidently when designing and manufacturing complex products.
Structures	Build stable freestanding structures using simple materials.	Construct stronger structures using strengthening techniques.	Design and build stable shelters using reinforcement.	Design and construct framework structures (e.g. pavilions).	Investigate forces and design bridges capable of supporting loads.	Apply structural knowledge to large-scale or complex products such as theme park structures.
Mechanisms	Explore simple moving parts through play and investigation.	Design and make products using wheels and axles.	Design and make products using levers and linkages (e.g. shaduf).	Apply knowledge of mechanisms appropriately within products.	Understand more complex mechanical systems and movement.	Combine gears, pulleys, cams or other mechanisms to create functioning products where appropriate.
Textiles	Join fabrics using simple techniques such as gluing and stapling.	Use running stitch or alternative joining techniques. Decorate finished products.	Select suitable joining methods and improve the quality of textile products.	Weave materials and combine textile techniques effectively.	Select appropriate natural or manufactured materials and apply a range of construction techniques.	Combine sewing, strengthening and decorative techniques confidently to create high-quality textile products.

Food & Nutrition	Prepare fruit safely and understand basic hygiene.	Prepare healthy meals using a range of ingredients and simple preparation techniques.	Prepare Roman bread while understanding healthy eating and balanced diets.	Prepare Viking-inspired dishes while understanding seasonality and food preparation.	Prepare West African dishes, understanding nutrition, seasonality and food provenance.	Prepare Central American dishes using advanced food preparation skills and adapt recipes for different purposes.
Materials	Explore paper, card, fabric and food ingredients.	Select appropriate materials including wood, card, wheels and food ingredients.	Choose suitable materials for strength, stability and appearance.	Understand the properties of textiles, food ingredients and structural materials.	Select materials according to durability, function and sustainability.	Confidently combine materials based on function, aesthetics and performance.
Measuring & Accuracy	Measure using non-standard and simple standard units with support.	Measure using rulers with increasing accuracy.	Measure, mark out and cut accurately using standard units.	Work with increasing precision, refining measurements where necessary.	Apply accurate measuring techniques independently throughout projects.	Achieve consistently high levels of precision when manufacturing products.
Creativity & Problem Solving	Explore ideas and choose a preferred design.	Solve simple design problems with support.	Modify ideas when challenges arise.	Adapt designs to improve outcomes.	Evaluate problems and identify effective solutions independently.	Demonstrate resilience, creativity and innovation to solve increasingly complex design problems.
Vocabulary	design, make, cut, join, fold, evaluate	axle, wheel, stable, strengthen, bridge	mechanism, lever, linkage, reinforce, prototype	frame, pavilion, weave, ingredients, seasonality	criteria, force, durable, nutrition, evaluate	specification, manufacture, innovation, precision, function