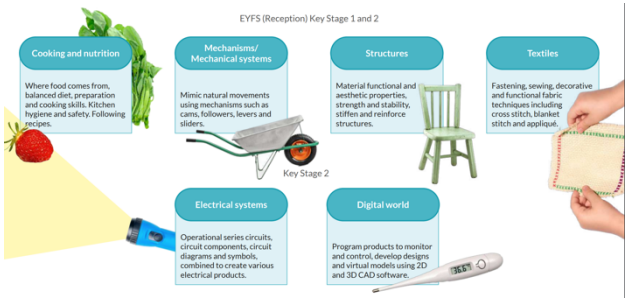
DT – Long Term Overview



School Vision: To be best prepared to live life in all its fullness.

Subject Intent: To be best prepared for the next stage in their DT journey.

The Gospel offers forgiveness of the past, new life in the present and hope for the future.

Past = *To be at peace and ready to learn:* Our curriculum is progressive - it is built on previous skills and meaningful experiences. Reading is a priority so it is not a barrier to learning. Targeted support is provided and early intervention is identified to ensure the needs of each pupil are met.

Present = T*o be inspired in the present:* Curriculum mapped out with substantive knowledge (facts) and disciplinary knowledge (how we gain knowledge, skills enquiry). *DT lessons will be hands-on, progressive and scaffolded so all pupils, including the most vulnerable, can succeed.* There will be opportunities beyond the curriculum for those who are enthused or show a talent in this subject. *Pupils will solve problems and think critically. They will also evaluate and consider their work, to continually be moving forward and develop ideas.*

Future = *Hope for the future*: Children will leave Reepham equipped with skills to be creative problem solvers that can make informed choices about eating healthily and using skills developed for potential career opportunities

Our School Values		
Respect	Friendship	Love
Forgiveness	Responsibility	cooperation

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1		Cooking and Nutrition: Fruit & veg - Smoothies cooking and nutrition unit including opportunities for children to learn food preparation skills and greater emphasis on taste testing and ingredient choices.		Structures: Windmills Mechanisms: Wheel Axels Learn about the key parts of a wheeled vehicle, to develop an understanding of how wheels, axles and axle holders work. Design and make a moving vehicle.		Textiles: Puppets Explore methods of joining fabric. Design and make a character-based hand puppet using a preferred joining technique, before decorating.
Year 2		Cooking and nutrition – A balanced diet. – Making a wrap cooking and nutrition unit including opportunities for children to learn about the importance of a balanced diet and use that knowledge to create a tasty wrap.		Textiles – Pouches. Learn how to sew a running stitch ready to design, make and decorate a pouch using a template.		Mechanical systems - ,Moving Monster. Explore levers, linkages and pivots through existing products and experimentation, use this research to construct and assemble a moving monster.
Year 3		Textile: Cushions Learn and apply two new sewing techniques – cross-stitch and appliqué. Utilise these new skills to design and make a cushion.		Mechanical System - Moving Toys – Pneumatic Toys Explore pneumatic systems, then apply this understanding to design and make a pneumatic toy including thumbnail sketches and exploded diagrams.		Cooking and nutrition - Eating Seasonally Including opportunities for children to learn about seasonal foods and create a seasonal food tart.
Year 4		Mechanical Systems: Slingshot car (4) Using a range of materials, design and make a car with a working slingshot mechanism and house the mechanism using a range of nets. Textiles: Fastenings (3) Analyse and evaluate a range of existing fastenings, then devise a list of design criteria to design, generate templates and make a fabric book sleeve.		Structures: Pavilion 4Investigate and model frame structures to improve their stability, then apply this research to design and create a stable, decorated pavilion. Cooking and nutrition: Adapting a recipe (4) children to learn a basic biscuits recipe and adapt it to suit a target audience.		Electrical Systems: Torches (3) Identify the difference between electrical and electronic products. Evaluate a range of existing torches and their features, then develop a new functional torch design.
Year 5		Cooking and nutrition: What could be healthier? (4) children create a simple Bolognese recipe and adapt it to improve nutritional content. Electrical System: Doodler (3) Our Doodlers unit explores series circuits further and introduces motors. Explore how the design cycle can be approached at a different starting point, by investigating an existing product, which uses a motor, to encourage pupils to problem-solve and work out how the product has been constructed, ready to develop their own.		Electrical systems: Pop up book. (3?) Design an eco-bike with gears and pulleys to harness the energy from an exercise bike or create a functional pop-up book using levers, sliders, layers and spacers to create paper-based mechanisms.		Structures: Bridges (4) Test and analyse various types of bridge to determine their strength and stability. Explore material properties and sources, before marking, sawing and assembling a wooden truss bridge
Year 6		Mechanical Systems Automata Toy using cams. Children discover the problems facing high-street shops and how window displays are important in attracting customers. They develop design criteria to meet a design brief by creating items for an interactive display. Using technical knowledge they build a mechanical system of cams, followers and axles to create an automata toy.		Cooking and nutrition Come Dine with me – 3 course meal. Develop a three-course menu focused on three key ingredients, as part of a paired challenge to develop the best class recipes. Explore each key ingredient's farm to fork process.		Electrical Systems Steady hand game. Understand what is meant by fit for purpose design and form follows function. Design and develop a steady hand game using a series circuit, including housing and backboard. Digital World GPS- Design and program a navigation tool to produce a multifunctional device for trekkers using CAD 3D modelling software. Pitch and explain the product to a guest panel.