Design Technology Overview and Intent – Crackley Bank Primary School

	Autumn	Spring	Summer
Reception	Children should use a range of tools including scissors, hole punch, stapler, glue spreader, rolling pin, cutter and grater, discuss reasons that make activities safe or unsafe, discuss appropriate use of senses.	Making own puppets for characters in the stories we are reading about. Card, and lolly pop sticks.	Cooking Adapt and improve work and understand how we can join and build, not just with construction pieces but with card and cardboard – using l-brace, flange, tabs, split pins, hole punch and string and slots.
Year 1	**Mechanisms -** Sliders and levers Moving Pictures (basic slider and one-point lever)	**Structures -** Freestanding structures Playgrounds or Homes (frames from straws and strengthen with triangles)	**Food -** Preparing fruit and vegetables (including cooking and nutrition requirements for KS1) Eat More Fruit and Veg (Fruit Salad/Kebabs
Year 2	**Mechanisms -** Wheels and axles Vehicles or Winding Up (wheels and axles)	**Food (additional focus due to context) -** Preparing fruit and vegetables (including cooking and nutrition requirements for KS1) Eat More Fruit and Veg (Vegetable salad to accompany ready-made main dish e.g. quiche)	**Textiles -** Templates and joining techniques Puppets or Coat/T-shirt for teddy (Joining identical 2D shapes)
Year 3	**Mechanical Systems -** pneumatics Moving Monsters	**Structures -** Shell structures (including computer-aided design) Packaging (nets)	**Food -** Healthy and varied diet (including cooking and nutrition requirements for KS2) Sandwich Snacks (making simple fillings – combining ingredients) Picnic
Year 4	**Mechanical Systems -** Levers and linkages 4b Storybooks (complex linkages and levers)	**Electrical Systems -** Simple circuits and switches (including programming and control) 4d Alarms or 4c Torches or 4e – Lighting it up	**Textiles -** 2-D shape to 3-D product Money Containers (2Dè3D product)
Year 5	**Mechanical Systems -** Pulleys or gears Moving Toys (cams)	**Structures -** Frame structures Shelters	**Food -** Celebrating culture and seasonality (including cooking and nutrition requirements for KS2) Bread or Biscuits
Year 6	**Textiles -** Combining different fabric shapes (including computer-aided design) Christmas gift bags	**Food -** Celebrating culture and seasonality (including cooking and nutrition requirements for KS2) Prepare and cook a predominately savoury meal using a range of cooking techniques.	**Electrical Systems** More complex switches and circuits (including programming, monitoring and control) Fairgrounds or 6d – Controllable Vehicles

The school's intent for Design & Technology is to provide the children with a wide range of transferable skills over a range of technological foci that enable them to plan, design and evaluate products that have been made for a real purpose whilst using and applying technical knowledge. The curriculum covers five areas: mechanisms, structures, food, textiles and electrical systems.

Mechanisms develop into Mechanical systems and will then impact upon the development of an electrical mechanism in the form of fairground rides or controllable vehicles in Y6. Mechanisms are revisited frequently because this links to industry and life skills.

Structures are revisited every two years moving from simple structures made from straws and strengthened by triangles, to the use of nets and then how nets and frames can be developed to make a shelter in Year 5. The development of mechanisms will also impact upon the structures and electrical systems units e.g. mechanisms to open doors in Alarms unit – this is why mechanisms are taught first.

Food is revisited frequently throughout the curriculum because healthy eating and encouraging children to be active and healthy is a priority of the school. We intend that, by teaching about healthy food and preparing simple meals, the children will have a better understanding of healthy lifestyles and apply this knowledge to their home lives.

Textiles develops skills from simple sewing to following a pattern to create a 3D product. These units develop skills for life – they may also be applied in Art.

Electrical systems have clear links with careers in industry and construction as well as developing children's life skills. There are clear links with the Science curriculum e.g. In Year 4 the DT unit will consolidate the Electricity Science Unit taught in the Autumn Term focussing upon simple circuits. In Year 6 the children will have the opportunity to construct products based upon their previous learning and add speed, sound and light intensity.