

Chandlers Ridge Progression of Skills – Design and Technology



Year Group	Topic	Skills	Language		
3	Pencil Cases	sewing safety rules running stitch back stitch whip stitch making a button hole attaching a button attaching poppers attaching embellishments	sewing joining stitch thread button hole	embellishments design applique beads ribbon	sequins material evaluate needle
3	Moving Monsters	Create a pneumatic system	pneumatic systems machinery factories syringe appearance		
3	Mini Green Houses	Building different shape structures and investigating their stability. Joining materials. Making a mini greenhouse.	greenhouse protect environment temperature regulated light/heat/nutrients/air/water survive	requirements transparent ventilate production (mass) consumers structure stable	collapsing advantage disadvantage recyclable materials construct aesthetics
4	Seasonal Stockings	running stitch (previously taught) overstitch zigzag stitch backstitch (previously taught) finishing knot attaching objects to fabric (bells, sequins etc)	function visual appearance decorative features embroidered	design criteria product user panels	
4	Alarms	Creating various switches through circuits. Take and use measurements. Design and make an alarm system for a particular purpose.	switches activated alarm systems analogue push to break switch	circuits components cell motor lamp	wire disguised alter

4	Seasonal Food	<p>Baking Cakes To know how seasonal fruits in Britain are grown and processed. To understand why vegetables are an important part of a healthy and varied diet. To find out about how seasonally produced meat can form part of a healthy diet. To know how fish are caught or reared, processed and used in healthy meals.</p>	<p>Seasonal food/ seasonality Ingredients Out of season Supermarkets Grain (corn, wheat, barley) Planted Harvested Preservation Legumes Meat</p>	<p>Transported Affordable Convenient Exotic Fruits Grown Processed Commercially Refrigerated Food producers</p>	<p>Diet Nutrients Iron/protein/vitamins/minerals Calcium/riboflavin/phosphorus Rear Slaughter Welfare Overfished Vegetarian Delicacy</p>
5	Programming Pioneers	<p>To explain how computers and computer programs are used in a variety of products.</p>	<p>Electrical components Thermostat Memory chip Circuit board</p>	<p>Microcontrollers Algorithms Microprocessors Transistor</p>	<p>Debugging Prototype Programme Codes</p>
5	Fashion and Textiles	<p>Straight stitch Blanket stitch Blind stitch Basting stitches Hems Pin material together Measure, mark and cut fabric To design, make and evaluate a drawstring bag</p>	<p>Cotton Lint Bales Yarn Bobbins</p>	<p>Synthetic Overlock stitch Buttonhole stitch Seams Drawstring cord</p>	
5	Chinese Inventions	<p>Joining materials together. Make prototypes which will be used to design and make their own kite.</p>	<p>Invention Pressing, couching, drying Predict</p>	<p>Test Prototype</p>	
6	Building Bridges	<p>Design and build a bridge which can support a given weight.</p>	<p>Pillars Beams Construct Tresses Strengthen</p>	<p>Arches Compression forces Gravity Abutments Tension</p>	