

Year 2	FRIDGE MAGNET Investigation, designing, handling material, painting,fixing magnet.	ORIGAMI Simple paper folding Procedures and various projects	COIL POTS Handling clay, manipulation, moulding. Thumb pots, coils,glazing	SIMPLE MECHANISMS Levers, pivots, sliders. Investigating moving parts. Constructing with, card - also PULL-STRING PUPPET	SUNGLASSES Investigating shapes of frames. Design and construct with card, pipe- cleaners and acetate.	DRIVE BELTS Roundabouts. Investigating drive belt mechanisms. Cotton reels, elastic bands, wooden base, nails, hammer.	MOVING VEHICLE Discussion of chassis axle and type.Variou materials possible.
Year 3	SIMPLE ELECTRICS Discussing electricity & components. Build circuits and test. Applications.	JIGSAW PUZZLE Investigating, Drawing, simplification of shapes, tracing, colour cutting,joining	WOODEN LETTERS Construction of letters, using a ruler, measure scale, sawing, sanding, glueing on card.	UTILITY BOX Examine décor- ative boxes, draw and design, construct box using template/ net and decorate.	3-D CAR “Wobbly Car” Drawing and investigation. Construction using templates Cutting, joining, card, wood, paint. Eccentric cams	FLAG DESIGN Look at flag design, discuss shape and colour Draw & design own. Fabric Painting/ printing	CLAY PENDANT Designs based on Holbein paintings. Drawing, shaping & decorating clay. Paint

Year 4	CEREAL PACKAGE Investigate existing design Draw & design own, construct using net, transfer design Display.	PERSONAL ORGANISER Using a kit, following instructions, joining components, designing graphics.	BIRD POT Explore bird feeders & drinking pots. Draw design. Make in clay using thumb pot extension. Glaze	PADDLE BOAT Investigate boats. Use kit to construct Discuss importance of following instructions. Test & decorate	FISH TANK Observation of fish & fish tanks. Design and construct tank with shoe box & add internal features.	ROCKET CAR Utilizing wind power. Kit construction with card, elastic bands & propeller. Testing and evaluation.	ORNAMENTAL VASE Discuss uses and design. Construction with card & masking tape. Decoration & painting.
Year 5	CONSTRUCTING WITH PAPER & STRAWS Towers & Bridges as a group challenge. Shape, height, strength, forces etc. Evaluation.	CONSTRUCTION CHAIR DESIGN Processes continued with Working in pairs and building with newspaper and masking tape. Form and Function	MARBLE RUN Purpose of obstacle course/ run. Design marble run & construct with variety of materials. Test	MOVING MONSTER (PNEUMATICS) Discuss/ explore Pumps, pistons syringes. Draw , design pop-up movement. Create / connect pneumatics.	CARRIER BAG Examples and design. Uses Discuss graphic design. Paper folding and assembly of bag. Decoration	GOURD BOWL Members pottery. Gourds & their uses. Design and construction with balloons & papier-mache. Shape, seal & paint.	DESK TOP EXPRESS Using kits & following instruction sheet to build a functional vehicle with wood , a desk accessory.

Year 6	<p>CLOCK DESIGN Design a clock for a purpose. Construct (mock up first) add mechanism & decorate.</p>	<p>DESIGNING & MAKING SHOES Observation & drawing of shoes. Design & make own shoe using a variety of materials.</p>	<p>MECHANICAL TOY Look at e.g's. Cams and cogs. Design toy, in particular the moving parts. Measure, cut, glue, test and evaluate.</p>	<p>BICYCLE CONSTRUCTION Observation, drawing, structural analyses. Constructing with newspaper and masking tape. Paint, decorate, customize.</p>	<p>. FAIRGROUND RIDE Look at existing types of rides. Gears, pulleys & levers. Design & construct with variety of materials.</p>	<p>TORCH (Electricity) Investigate torches. Draw various types. Design torch and assemble circuits and switches. Cardboard tubes, Graphics.</p>	<p>CLAY TILES Wedging Rolling cutting joining slip, coils surface pattern & texture. Basis for design will vary.</p>
Year 7	<p>WOODEN BOX Design and make a pencil box using an instruction sheet and relevant tools & materials.</p>	<p>MOTORISED VEHICLE Observation & drawing. Design of own vehicle. Movement, electrics, motor,,pulleys Test & evaluate</p>	<p>TORSION CATAPULT Forces. Design of catapult following design brief. Group inventiveness. Test as competition.</p>	<p>AUTOMATA MODELS Cams, gears. Design, construct mechanism and movement. e.g Merry-go-round Bobbing boat</p>	<p>KEY RING Plastics. Investigate, design & cut. Join component parts C.A.D. graphics</p>	<p>C.D. CLOCK DESIGN & MAKE Using a C.D. and clock mechanism Designing the graphics utilising computer aided design.</p>	<p>Credit Card TORCH Using kit with plastics & L.E.D. Measure, cut, join parts. Computer graphics.</p>

Year 8	PINBALL MACHINE Analyses & investigation. Design course & working parts. Construct test & evaluate	BURGER BOXES Observation & design of graphics. Construct using net & shell structure. Decorate. Accessories.	POWER BOAT Drawing and design of boat working in pairs. Movement, stability, balance speed. Electrics, motors, propeller Test & evaluate.	WIND CHIME Personalised designs using e.g'.s. as basis. Construct with hardboard , copper piping , string & washers.	CRAZY GOLF HOLE Design & make a crazy golf hole devising a complex course of obstacles. Variety of materials & techniques.	HOVERCRAFT (ELECTRIC CIRCUITS) Working from construction kit Tools and processes Following written instruction sheet. Styrene foam	LONDON EYE Big wheel construction using building ideas and techniques adapted from London Eye. Paper, dowel, bolts and nuts
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