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|  | Autumn | Spring | Summer |
| Reception | Children will know how to use adhesive tape and different sorts of glue for their chosen purpose.  Children will know how to make a treasury tag join and a cardboard flange join. | Children will know how to make an L-brace and a slot join.  Children will know how to create tabs to make a standing wall. | Children will know how to make a split pin join.  Children will know how to sew to join |
| Year 1 | Structures - Constructing Windmills | **Textiles – sew a dressing table mat using binka and embroidery thread**  Learning new stitches – running stitch  Designing mat  Sewing mat  Evaluating | **Food – fruit and vegetables**  Fruit or vegetable  Where fruit and vegetables grow  Smoothie ingredient tasting  Making smoothies |
| Year 2 | **Structures – Babies Chair**  Stability, strengthening, fixing and testing  **Textiles**  Design and make puppets for puppet show | **Mechanisms – a moving monster**  Pivots, levers and linkages  Making linkages using card, split pins  Designing a monster  Making a monster using card | **Mechanisms**  **Wheeled vehicles** – learning to use tools safely |
| Year 3 | **Food – Eating seasonally**  Food from different climates  Rhubard Crumble  Seasonal Tart  British seasonal foods  Rainbow foods – nutrients in fruit and vege  Making tarts using seasonal produce | **Digital world – electronic charm**  Explore smart wearables – looking at a micro-bit  Programme an e charm-  Create and decorate a foam pouch  Design a sale poster for charm using IT | **Structures – constructing a castle**  Features of a castle  Designing a castle -create a net and label  Nets and structures  Building a castle and decorate |
| Year 4 | **Structures – Pavilions**  Exploring frame structures using tooth picks  Design a pavilion  Make a strong frame (lolly sticks, tissue, tooth picks)  Clad their structure  Build a Roman Road – team work using boxes (links Pompeii) | **Mechanisms - making a sling shot car**  Make a chassis and slingshot mechanism – learn how slingshot cars work  Designing car body  Making car body  Assembly and testing | **Electrical systems – torches**  Electrical products -differences between electrical and electronic and how to create a simple circuit  Evaluating torches – look at a range of torches and identity features – housing, reflector, circuit and switch Torch design Torch assembly |
| Year 5 | **Mechanisms**  Making a pop up book  Pop up book design, make a pop up book and add illustrations and writing  **Textiles**  Weaving  **Structures**  Design and make a house for a strong anglo saxon house that will stand up. | **Electrical Systems – electronic greeting cards**  History and development of cards  Learn about series circuits and how to integrate  Create a mood board  Complete electronic greeting card  **Textiles**  Design and make a stuffed easter eggs – sew and decorate with initials. | **Structures**  Spaghetti bridges – group, make the strongest bridge competition look at different bridge designers and designs |
| Year 6 | **Electrical systems - Steady Hand game design**  **Business Enterprise**  **Textiles – Poppies**  Preparing fabric – cut out using template  Assembling and sew together  Decorate | **Mechanisms - Automatas Toys**  Preparing wood for assembly, measuring, mark making and cutting  Frame assembly  Experimenting with cams to inform a design decision.  To apply finishing touches | **Digital World – navigating the world**  Navigating the world  Programming a navigating tool  Product concept  3D Cad Models  Product Pitch |