**St Peter’s CE Middle School Curriculum Overview**

**Subject: Design Technology**

|  |  |  |  |
| --- | --- | --- | --- |
| **Year 5** | **Topic:**  **Food Technology.** | **Topic:**  **Resistant Materials – Wooden phone holder.** | **Topic:**  **Textiles – Drawstring bag.** |
| **Concept:**  **Eatwell Guide.**  **Food hygiene and kitchen safety.**  **Methods of combining ingredients.**  **Methods of cooking - baking.**  **Dough making.**  **Knife skills.** | **Concept:**  **Health and safety in the workshop.**  **Manufactured boards and natural timbers.**  **Existing products – slotted phone holders.**  **Functional and appealing designs.**  **Design briefs.**  **Woodworking.**  **Evaluating designs and products.** | **Concept:**  **Types and purposes of bags.**  **Tying fabric to resist dye to create a design.**  **Joining textile materials.**  **Creating a pattern for applique.**  **Hand applique.**  **Using a sewing machine.** |
| **Skills:**  **Food preparation skills.**  **Cleaning skills.**  **Knife skills.** | **Skills:**  **Product analysis.**  **Following a design brief.**  **Designing a bespoke product.**  **Marking out wood.**  **Cutting accurate straight lines and curves in wood.**  **Smoothing and finishing wood.**  **Evaluating finished outcome.** | **Skills:**  **Hand applique to decorate textiles.**  **Using a sewing machine to join fabrics with straight lines.**  **Tie-dye techniques.** |
| **Outcome:**  **Knowledge of food groups.**  **Knowledge of origins of different foods.**  **Knowledge of food preparation, hygiene and safety in the kitchen.**  **Able to use a recipe.**  **Able to prepare a range of dishes.** | **Outcome:**  **Knowledge of design process.**  **Knowledge of wood cutting and sanding techniques.**  **Understanding functional and appealing designs.**  **Able to design and make a slotted wooden phone holder.**  **Evaluation.** | **Outcome:**  **Able to pin fabric together.**  **Able to hand applique.**  **Able to tie fabric to produce a design when dyed.**  **Able to use a sewing machine to construct a drawstring bag.**  **Evaluation.** |

|  |  |  |  |
| --- | --- | --- | --- |
| **Year 6** | **Topic:**  **Resistant Materials – Wooden wheeled toy.** | **Topic:**  **Textiles – Personalised apron.** | **Topic:**  **Food Technology.** |
| **Concept:**  **Health and safety in the workshop.**  **Types of timbers – hardwoods, softwoods, manufactured boards.**  **Wooden toys – existing products, appealing designs, safety considerations.**  **Design briefs.**  **Woodworking.**  **Product packaging / promotion.** | **Concept:**  **Using a sewing machine for straight stitch, zig-zag stitch and hemming.**  **Measuring and marking out.**  **Cutting fabric.**  **Machine applique.**  **Block printing as a decorative technique.** | **Concept:**  **Eatwell Guide for nutrition.**  **Food hygiene and kitchen safety.**  **Methods of combining ingredients.**  **Methods of cooking – baking, boiling, simmering.**  **Knife skills.** |
| **Skills:**  **Understanding types of timbers and their uses.**  **Designing to a brief.**  **Cutting, drilling, shaping and smoothing timber.**  **Constructing simple wheels and axles.**  **Creating packaging / promotion items.**  **Evaluating.** | **Skills:**  **Using pins to hold fabric in place for hems.**  **Using a sewing machine (zig-zag stitch and straight stitch) to sew straight lines.**  **Using a sewing machine to applique.**  **Making a printing block and printing fabric.** | **Skills:**  **Food preparation skills.**  **Cleaning skills.**  **Knife skills.**  **Dough making.**  **Dividing/portioning.** |
| **Outcome:**  **Knowledge of design process.**  **Able to use a variety of woodworking techniques.**  **Design and make a wheeled wooden toy suitable for a young child.**  **Design and make suitable packaging / promotion items.**  **Evaluation.** | **Outcome:**  **Able to use different types of stitches on a sewing machine.**  **Able to construct an apron that features a pocket that is creatively decorated with textiles techniques.**  **Able to make and use a printing block.**  **Evaluation.** | **Outcome:**  **Knowledge of food groups and nutrition.**  **Knowledge of food preparation, hygiene and safety in the kitchen.**  **Able to use a recipe.**  **Able to prepare and cook a range of dishes.** |

|  |  |  |  |
| --- | --- | --- | --- |
| **Year 7** | **Topic:**  **Textiles – Personalised apron.** | **Topic:**  **Food Technology.** | **Topic:**  **Resistant Materials – Layered mirror.** |
| **Concept:**  **Textile uses, natural and synthetic fibres.**  **Using a pattern and cutting fabric.**  **Using a sewing machine.**  **Hemming and joining textile materials.**  **Decorative textile techniques – applique, block printing.**  **Anthropometric data.** | **Concept:**  **Eatwell Guide.**  **Food hygiene and kitchen safety.**  **Methods of combining ingredients.**  **Methods of cooking – boiling, baking, frying.**  **Dough making.**  **Knife skills.**  **Roman recipes.**  **Medieval recipes.** | **Concept:**  **Health and safety in the workshop.**  **Plastics – origin and uses including HIPS, acrylic, bioplastics.**  **Design specification, ACCESSFM.**  **Methods of cutting, forming, shaping and joining plastics.**  **Vacuum forming.**  **Methods of cutting and smoothing wood.** |
| **Skills:**  **Threading and using a sewing machine to sew straight and curved lines.**  **Measuring and marking out.**  **Following a pattern.**  **Machine applique.**  **Making a printing block and printing fabric.** | **Skills:**  **Food preparation skills.**  **Cleaning skills.**  **Knife skills.** | **Skills:**  **Creating a design specification.**  **Designing.**  **Accurately cutting and shaping wood to make a former.**  **Operating a vacuum forming machine to form HIPS.**  **Using hand tools to cut and smooth wood.**  **Using hand tools to cut and shape sheet acrylics.** |
|  | **Outcome:**  **Knowledge of food groups and nutrition.**  **Knowledge of food preparation hygiene and safety in the kitchen.**  **Able to use and adapt a recipe.**  **Able to prepare and cook a range of dishes.** | **Outcome:**  **Knowledge of plastics.**  **Knowledge of vacuum former and how to use it to form HIPS.**  **Able to cut and file wood accurately to produce a quality finish.**  **Able to cut and shape acrylic.**  **Design and make a colourful hanging mirror using plastics and wood.** |

|  |  |  |  |
| --- | --- | --- | --- |
| **Year 7** | **Topic:**  **Textiles – Monster soft toy.** | **Topic:**  **Food Technology.** | **Topic:**  **Resistant Materials – Thermo-formed clock.** |
| **Concept:**  **Fabric construction – weaving, knitting, felting.**  **Pattern design and making.**  **Machine sewing to a pattern.**  **Seams.**  **Soft toy construction.** | **Concept:**  **The Eatwell Guide to plan a nutritionally balanced diet.**  **Food hygiene and kitchen safety.**  **Methods of combining ingredients.**  **Methods of cooking – boiling, simmering, baking, frying.**  **Dough making and kneading.**  **Knife skills.**  **Functions of ingredients.**  **Sensory evaluation of a finished dish.** | **Concept:**  **Health and safety in the workshop.**  **Polymers – origin and uses including HIPS, acrylic, bioplastics.**  **Methods of cutting, forming, shaping and joining plastics.**  **Vacuum forming.**  **Methods of cutting and smoothing timber.** |
| **Skills:**  **Weaving using a cardboard loom.**  **Knitting using a ring loom.**  **Wet felting.**  **Designing and making a pattern.**  **Hand or machine sewing straight and curved lines to construct a 3D item.**  **Constructing and stuffing a toy.** | **Skills:**  **Food preparation skills including peeling, chopping, kneading, rubbing-in, creaming, beating.**  **Food cooking skills - boiling, simmering, baking, frying.**  **Cleaning skills.**  **Carrying out a sensory evaluation of a finished dish.** | **Skills:**  **Following a design brief.**  **Accurately cutting and shaping timber to make a former.**  **Operating a vacuum forming machine to thermoform polymers.**  **Using hand tools to cut and smooth wood.**  **Using hand tools to cut and shape sheet plastics.** |
| **Outcome:**  **Able to construct fabric using different methods.**  **Able to use a sewing machine to construct a monster soft toy featuring their constructed fabric.** | **Outcome:**  **Knowledge of food groups and nutrition, able to plan a healthy diet.**  **Knowledge of food preparation, cooking, hygiene and safety in the kitchen.**  **Able to use and adapt a recipe.**  **Able to prepare and cook a range of dishes.**  **Able to evaluate dishes using sensory descriptors.** | **Outcome:**  **Knowledge of plastics origins and uses.**  **Knowledge of vacuum former and how to use it.**  **Able to cut and file timber accurately to produce a quality finish.**  **Able to cut and shape polymers.**  **Able to design and make a colourful hanging wall clock using polymers and timber.** |

|  |  |  |  |
| --- | --- | --- | --- |
| **Year 8** | **Topic:**  **Textiles – E-textiles Christmas cushion.** | **Topic:**  **Resistant Materials – Wooden cam toy.** | **Topic:**  **Food Technology.** |
| **Concept:**  **Smart and modern textile materials incl. electro-conductive thread.**  **Electronic circuits.**  **Designing, making and following a pattern.**  **Joining textile materials, by hand and machine.**  **Decorative textile techniques – applique and embroidery.** | **Concept:**  **Health and safety in the workshop, workshop tools.**  **Cams and mechanical toys.**  **Isometric drawing.**  **Writing a design brief.** | **Concept:**  **Food hygiene and kitchen safety.**  **Methods of combining ingredients.**  **Methods of cooking - boiling, simmering, baking, frying.**  **Functions of ingredients.**  **Dough making.**  **Knife skills.**  **Designing a recipe.**  **Fairtrade.**  **Food labelling.** |
| **Skills:**  **Constructing a working electronic circuit.**  **Cutting fabrics.**  **Making and following a pattern.**  **Hand stitching techniques.**  **Sewing machine use to join fabrics and create a 3D item.**  **Applique and Embroidery techniques.**  **Applying Velcro as a fastening.** | **Skills:**  **Understanding cams and how they work.**  **Writing and following a design brief.**  **Drawing in isometric.**  **Cutting, joining and smoothing a variety of timber stock forms.**  **Creating cams.**  **Evaluating.** | **Skills:**  **Food preparation skills including peeling, chopping, slicing, kneading, whisking, creaming, beating.**  **Food cooking skills - boiling, simmering, baking, frying.**  **Cleaning skills.**  **Designing recipes.** |
| **Outcome:**  **Understand simple electronic circuits and able to create a working circuit.**  **Able to cut and pin fabric.**  **Able to hand and machine sew.**  **Able to design and construct a removable cushion cover with a light-up feature.**  **Able to decorate textiles using a range of techniques.** | **Outcome:**  **Knowledge of design process.**  **Able to draw some forms in isometric.**  **Able to safely use workshop tools with different timber stock forms to make a working wooden cam toy.**  **Evaluation.** | **Outcome:**  **Knowledge of food groups and nutrition, able to design a recipe.**  **Knowledge of food preparation hygiene and safety in the kitchen.**  **Able to prepare and cook a range of dishes.**  **Knowledge of global origins of ingredients and the Fairtrade vision.**  **Understanding of food labelling.** |