### Key Learning in Design and Technology: Years 3 and 4

#### Design
- Develop more than one design or adaptation of an initial design.
- Plan a sequence of actions to make a product.
- Record the plan by drawing using annotated sketches.
- Begin to use cross-sectional and exploded diagrams.
- Use prototypes to develop and share ideas.
- Think ahead about the order of their work and decide upon tools and materials.
- Propose realistic suggestions as to how they can achieve their design ideas.
- Consider aesthetic qualities of materials chosen.
- Use CAD where appropriate.

#### Make
- Prepare pattern pieces as templates for their design.
- Cut slots.
- Cut internal shapes.
- Select from a range of tools for cutting shaping joining and finishing.
- Use tools with accuracy.
- Select from techniques for different parts of the process.
- Select from materials according to their functional properties.
- Plan the stages of the making process.
- Use appropriate finishing techniques.

#### Evaluate
- Investigate similar products to the one to be made to give starting points for a design.
- Draw/sketch products to help analyse and understand how products are made.
- Research needs of user.
- Identify the strengths and weaknesses of their design ideas in relation to purpose/user.
- Decide which design idea to develop.
- Consider and explain how the finished product could be improved.
- Discuss how well the finished product meets the design criteria of the user.
- Investigate key events and individuals in Design and Technology.

#### Food
- Develop sensory vocabulary/knowledge using, smell, taste, texture and feel.
- Analyse the taste, texture, smell and appearance of a range of foods (predominantly savoury).
- Follow instructions/recipes.
- Make healthy eating choices – use the Eatwell plate.
- Join and combine a range of ingredients.
- Explore seasonality of vegetables and fruit.
- Find out which fruit and vegetables are grown in countries/continents studied in Geography.
- Develop understanding of how meat/fish are reared/caught.

#### Textiles
- Develop vocabulary for tools materials and their properties.
- Understand seam allowance.
- Join fabrics using running stitch, over sewing, blanket stitch.
- Prototype a product using J cloths.
- Use prototype to make pattern.
- Explore strengthening and stiffening of fabrics.
- Explore fastenings (inventors?) and recreate some.
- Sew on buttons and make loops.
- Use appropriate decoration techniques.

#### Structures
- Develop vocabulary related to the project.
- Create shell or frame structures.
- Strengthen frames with diagonal struts.
- Make structures more stable by giving them a wide base.
- Measure and mark square section, strip and dowel accurately to 1cm.

#### Mechanical and Electrical Systems and ICT
- Develop vocabulary related to the project.
- Use mechanical systems such as gears, pulleys, levers and linkages.
- Incorporate a circuit into a model.
- Use electrical systems such as switches bulbs and buzzers.
- Use ICT to control products.
- Use lolly sticks/card to make levers and linkages.
- Use linkages to make movement larger or more varied.