Stukeley Federation Design and Technology – UKS2 – Cycle A

Throughout the year the children will cover a variety of aspects of the design and technology curriculum to ensure all children:

- develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world
- build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users
- critique, evaluate and test their ideas and products and the work of others
- understand and apply the principles of nutrition and learn how to cook.

Autumn 2	**<u>Fair Trade</u>** **Developing, planning & communicating ideas** Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes. Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose. **Food & Nutrition** Know how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source. Understand how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking. **Evaluating processes & products** Evaluate their products, identifying strengths and areas for development, and carrying out appropriate tests. Evaluate their work both during and at the end of the assignment. • Fair-Trade bread or biscuits • understanding seasons may affect food available • knowing that food is grown & caught in the UK, Europe & the wider world • understanding that food & drink can contain different substances

Spring 2	**<u>Volcanoes</u>** **Developing, planning & communicating ideas** Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces. Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose. **Working with tools, equipment, materials and components to make quality products** Confidently select appropriate tools, materials, components and techniques. Use tools safely and accurately. **Evaluating processes & products** Evaluate their products, identifying strengths and areas for development, and carrying out appropriate tests. Evaluate their work both during and at the end of the assignment. • Mechanical systems pulleys & levers (linked to science) • Gears and cams • understand how mechanical systems create movement • make a moveable object
Summer 1	**<u>Ancient Greece</u>** **Developing, planning & communicating ideas** Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces. Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose. **Working with tools, equipment, materials and components to make quality products** Confidently select appropriate tools, materials, components and techniques and use them. Use tools safely and accurately. **Evaluating processes & products** Evaluate their products, identifying strengths and areas for development, and carrying out appropriate tests. Evaluate their work both during and at the end of the assignment. • *Design and create a key ring* • *Use Tinkercad on iPad* • *Use 3D printer*