DESIGN TECHNOLOGY Enquiry Questions and Assessment Checkpoints

Y1	Autumn 2	Spring 2	Summer 2
Lead Enquiry Question (Composite Outcome)	**Structure and Materials** Can I design, make and evaluate a toy? (link to History and Science)	**Textiles** Can I design, make and evaluate a woven landscape for an animal habitat? (link to science from Spr 1)	**Cooking and Nutrition** Can I design, make and evaluate a fruit/vegetable smoothie? (link to seasonal changes)
WALTS (Components)	C1: Explore modern toys and compare these with toys from the past C2: Describe how toys from the past were made C3: Design a toy that my grandparents would have played with when they were my age C4: Explore what different materials could be used to make my toy C5: Make my toy using careful cutting C6: Evaluate how successful my toy is	C1: Explore how to join two pieces of fabric together in different ways C2: Practise weaving different with different materials C3: Design and label my woven habitat saying which animal it is for C4: Make my woven habitat by cutting accurately and joining fabric together C5: Evaluate how successful my finished piece is	C1: Identify is a food is a fruit or vegetable C2: Identify where plants grow and which parts we eat C3: Taste and compare fruit and vegetables C4: Taste and compare different smoothies C5: Design my own smoothie C6: Cut ingredients safely C7: Make and evaluate my smoothie
Assessment Checkpoint	Children who are **secure** will be able to: ✓ Compare toys from different periods ✓ Know some reasons why toys have changed overtime ✓ Desing a toy from 100 years ago ✓ Select appropriate material to make my toy ✓ Evaluate the success of my toy	Children who are **secure** will be able to: ✓ Join fabrics together with staples, glue and a simple running stitch ✓ Design a woven habitat ✓ Cut carefully ✓ Evaluate a finished piece of work	Children who are **secure** will be able to: ✓ Describe fruits and vegetables and explain why they are a fruit or a vegetable ✓ Name a range of places that fruit and vegetables grow ✓ Describe basic characteristics of fruit and vegetables ✓ Prepare fruits and vegetables to make a smoothie

Y2	Autumn 1	Spring 1	Summer 1
Lead Enquiry Question (Composite Outcome)	**Structures and Materials** Can I design, make and evaluate a model habitat for a chosen animal?	**Mechanisms** Can I design, make and evaluate a cart for transporting quarry stones? (link to topic and science)	**Cooking and Nutrition** Can I design, make and evaluate a healthy wrap? (link to growing)
WALTS (Components)	C1: Describe the features of different habitats C2: Design a habitat for a chosen animal C3: Explore different materials for each component of the habitat and label your design when the material has been selected C4: Make the 3D habitat using a range of materials and textures C5: Evaluate how successful each material was representing components	C1: Understand how wheels move C2: Identify what stops wheels from turning C3: Design a moving vehicle that would be able to transport quarry stones C4: Make a moving vehicle using axles C5: Evaluate how well my vehicle moves	C1: Research what makes a healthy diet C2: Explore what flavour wraps are currently on the market and what the public like (trip to Asda) C3: Taste test food combinations to inform our design C4: Design my healthy wrap taking into consideration my market research C5: Make my healthy wrap using safe cutting techniques and hygienic cooking rules C6: Evaluate how successful my healthy wrap is
Assessment Checkpoint	Children who are **secure** will be able to: ✓ Know that different materials have different strengths and textures ✓ Cut and join materials in different ways ✓ Explain why different materials were chosen for different aspects of their habitat ✓ Evaluate how successful their joins and material choices were	Children who are **secure** will be able to: ✓ Explain that wheels move because they are attached to an axle ✓ Identify and explain vehicle design flaws using the correct vocabulary ✓ Design a vehicle that includes functioning wheels, axles and axle holders ✓ Make a moving vehicle	Children who are **secure** will be able to: ✓ Name the main food groups and identify foods that belong to each group ✓ Describe the taste, texture and smell of a given food ✓ Use market research to inform design ✓ Construct a wrap that meets the design brief and their plan

Y3	Autumn 1	Spring 1	Summer 1
Lead Enquiry Question (Composite Outcome)	**Structure and Materials** Design, make and evaluate a castle structure (link to History from Year 2)	**Textiles** Use cross stitch and applique to design, makes and evaluate an Egyptian collar (link to history)	**Cooking and Nutrition** Design, make and evaluate a 'healthy' and seasonal pizza (link to Italy – Aut 1 Year 4 focus)
WALTS (Components)	C1: Recognise how multiple shapes (2D and 3D) are combined to form a strong and stable structure C2: Design a castle and label it's key features and design specification C3: Construct 3D nets C4: Construct a castle form from 3D nets C5: Evaluate the success of the castle structure and suggest improvements to the design	C1: Learn how to sew cross-stitch and applique C2: Explore Egyptian Collars and comment on the design of these C3: Design my own Egyptian Collar C4: Make my Egyptian Collar using cross-stitch and applique C5: Evaluate my Egyptian Collar with suggestions for future improvements to design and finish	C1: Know that climate affects food growth C2: Understand the advantages of eating seasonal foods grown in the UK C3: Design a pizza topping that is healthy and nutritious using seasonal vegetables C4: Safely follow a recipe and hygiene rules when cooking C5: Evaluate how successful my toppings were linked to the design brief and taste test
Assessment Checkpoint	Children who are **secure** will be able to: ✓ Draw and label a simple castle that includes most common features ✓ Design a castle with key features ✓ Score or cut along lines on the net of a 2D shape ✓ Securely assembly geometric shapes ✓ Utilise skills to build a complex structure from geometric shapes	Children who are **secure** will be able to: ✓ Use a cross-stitch to join two pieces of fabric together ✓ Design and cut the template for an Egyptian collar ✓ Use cross-stitch and applique to decorate a traditional Egyptian collar	Children who are **secure** will be able to: ✓ Explain that fruits and vegetables grow in different countries based on their climates ✓ Understand the seasonal fruits and vegetables are those that grow in a given season and taste best then ✓ Design their own seasonal and healthy pizza toppings ✓ Understand the basic rules of food hygiene and safety ✓ Follow the instructions within a recipe

Y4	Autumn 2	Spring 2	Summer 2
Lead Enquiry Question (Composite Outcome)	**Cooking and Nutrition** Design, make and evaluate a Christmas biscuit	**Electrical** Design, make and evaluate an animal with light up eyes	**Computing and Programming** Program, monitor and control a bee-bot around a map of Europe (link to Summer 1 Geog) **Textiles** Design, make and evaluate a fabric book sleeve from one of our class reads this year.
WALTS (Components)	C1: Follow a baking recipe C2: Make and test a prototype C3: Design a Christmas biscuit to a given budget C4: Make a biscuit that meets a Christmas biscuit design brief C5: Evaluate the success of the adaptation to the recipe in designing a new biscuit	C1: Learn about electrical items and how they work C2: Analyse and evaluate electrical toys C3: Design a product that fits a specific design brief C4: Make a working circuit with a switch function C5: Complete design product using a range of materials, joining and finishing techniques C6: Evaluate the success of my finished product and suggest any improvements I would make	C1: Program a bee-bot using simple commands C2: Program a bee-bot for a specific route C1: Identify and evaluate different types of fastenings C2: Design a product to meet a design criteria C3: Make and test a paper template C4: Assemble a book jacket using a running stitch and back stitch C5: Apply finishing touches and applique to book sleeve C6: Evaluate my book sleeve
Assessment Checkpoint	Children who are **secure** will be able to: ✓ Follow a recipe ✓ Describe the features of a biscuit based on taste, smell, texture and appearance ✓ Adapt a recipe by adding extra ingredients to it ✓ Plan a biscuit recipe within a budget	Children who are **secure** will be able to: ✓ Identify electrical products and explain why they are useful ✓ Make a working switch ✓ Create suitable designs that fit the success criteria and their own design brief ✓ Create an animal with light up eyes that you can switch on and off	Children who are **secure** will be able to: ✓ Identify the features, benefits and disadvantages of a range of fastening types ✓ Write design criteria and design a sleeve that satisfies the criteria ✓ Make a template for their book sleeve ✓ Assemble their case using any stitch they are comfortable with

Y5	Autumn 1	Spring 1	Summer 2
Lead Enquiry Question (Composite Outcome)	**Electrical** Design, make and evaluate a light up and/or moving Christmas decoration (link back to Y4 science)	**Cooking and Nutrition** Design, make and evaluate a pasty suitable for a sailor.	**Structure and Materials, inc Textiles** Design, make and evaluate a modern day ship with sails.
WALTS (Components)			
Assessment Checkpoint	Children who are **secure** will be able to: ✓	Children who are **secure** will be able to: ✓	Children who are **secure** will be able to: ✓

Y6	Autumn 2	Spring 2	Summer 2
Lead Enquiry Question (Composite Outcome)	**Electrical** Design, make and evaluate a motorised boat (link to History)	**Computing and Programming** Design and program a navigation tool for trekkers across the world using CAD 3D modelling software.	**Mechanism** Design, make and evaluate a rocket launcher
WALTS (Components)			
Assessment Checkpoint	Children who are **secure** will be able to: ✓	Children who are **secure** will be able to: ✓	Children who are **secure** will be able to: ✓