



Leverstock Green CE (VC) Primary School
Striving for excellence; caring for the individual.

Subject	Design and Technology					
Subject Leader	Ms Munro					
Year group	Cooking and Nutrition	Mechanisms	Structures	Textiles	Electrical Systems	Digital world
EYFS						
Year 1	Fruit and vegetables Pupils who are secure will be able to: <ul style="list-style-type: none"> ✓ Describe fruits and vegetables and explain why they are a fruit or a vegetable. ✓ Name a range of places that fruits and vegetables grow. ✓ Describe basic characteristics of fruit and vegetables. ✓ Prepare fruits and vegetables to make a smoothie. 		Constructing windmills Pupils who are secure will be able to: <ul style="list-style-type: none"> ✓ Identify some features that would appeal to the client (a mouse) and create a suitable design. ✓ Explain how their design appeals to the mouse. ✓ Make stable structures, which will eventually support the turbine, out of card, tape and glue. ✓ Make functioning turbines and axles that are assembled into the main supporting structure. ✓ Say what is good about their windmill and what they could do better. 	Making puppets Pupils who are secure will be able to: <ul style="list-style-type: none"> ✓ Join fabrics together using pins, staples or glue. ✓ Design a puppet and use a template. ✓ Join their two puppets' faces together as one. ✓ Decorate a puppet to match their design. 		



Leverstock Green CE (VC) Primary School
Striving for excellence; caring for the individual.

Year 2		<p>Fairground wheel Pupils who are secure will be able to:</p> <ul style="list-style-type: none"> ✓ Design and label a wheel. ✓ Consider the designs of others and make comments about their practicality or appeal. ✓ Consider the materials, shape, construction and mechanisms of their wheel. ✓ Label their designs. ✓ Build a stable structure with a rotating wheel. ✓ Test and adapt their designs as necessary. ✓ Follow a design plan to make a completed model of the wheel. 	<p>Baby bear's chair Pupils who are secure will be able to:</p> <ul style="list-style-type: none"> ✓ Identify man-made and natural structures. ✓ Identify stable and unstable structural shapes. ✓ Contribute to discussions. ✓ Identify features that make a chair stable. ✓ Work independently to make a stable structure, following a demonstration. ✓ Explain how their ideas would be suitable for Baby Bear. ✓ Produce a model that supports a teddy, using the appropriate materials and construction techniques. ✓ Explain how they made their model strong, stiff and stable. 	<p>Pouches Pupils who are secure will be able to:</p> <ul style="list-style-type: none"> ✓ Sew a running stitch with regular-sized stitches and understand that both ends must be knotted. ✓ Prepare and cut fabric to make a pouch from a template. ✓ Use a running stitch to join the two pieces of fabric together. ✓ Decorate their pouch using the materials provided. 		
--------	--	---	--	---	--	--



Leverstock Green CE (VC) Primary School
Striving for excellence; caring for the individual.

Year 3	Eating seasonally Pupils who are secure will be able to: <ul style="list-style-type: none"> ✓ Explain that fruits and vegetables grow in different countries based on their climates. ✓ Understand that 'seasonal' fruits and vegetables are those that grow in a given season and taste best then. ✓ Know that eating seasonal fruit and vegetables has a positive effect on the environment. ✓ Design their own tart recipe using seasonal ingredients. ✓ Understand the basic rules of food hygiene and safety. ✓ Follow the instructions within a recipe. 		Constructing a castle Pupils who are secure will be able to: <ul style="list-style-type: none"> ✓ Draw and label a simple castle that includes the most common features. ✓ Recognise that a castle is made up of multiple 3D shapes. ✓ Design a castle with key features which satisfy a given purpose. ✓ Score or cut along lines on the net of a 2D shape. ✓ Use glue to securely assemble geometric shapes. ✓ Utilise skills to build a complex structure from simple geometric shapes. ✓ Evaluate their work by answering simple questions. 			Electronic charm Pupils who are secure will be able to: <ul style="list-style-type: none"> ✓ Give a brief explanation of the digital revolution and/or remember key examples. ✓ Suggest a feature from the Micro:bit that is suitable for an eCharm. ✓ Write a program that initiates a flashing LED panel, or another pattern, on the Micro:bit when a button is pressed. ✓ Identify errors, if testing is unsuccessful, by comparing their code to a correct example. ✓ Explain the basic functionality of their finished program. ✓ Suggest key features for a pouch, with some consideration for the overall theme and the user. ✓ Use a template when cutting and assembling a pouch, with some support. ✓ Describe what is meant by 'point of sale display' with an example. ✓ Follow basic design requirements using computer-aided design, drawing at least one shape with a text box and bright colours, following a demonstration. ✓ Evaluate their design.
---------------	--	--	---	--	--	--



Leverstock Green CE (VC) Primary School
Striving for excellence; caring for the individual.

Year 4		<p>Making a slingshot car Pupils who are secure will be able to:</p> <ul style="list-style-type: none"> ✓ Work independently to produce an accurate, functioning car chassis. ✓ Design a shape that is suitable for the project. ✓ Attempt to reduce air resistance through the design of the shape. ✓ Produce panels that will fit the chassis and can be assembled effectively using the tabs they have designed. ✓ Construct car bodies effectively. ✓ Conduct a trial accurately and draw conclusions and improvements from the results. 	<p>Pavilions Pupils who are secure will be able to:</p> <ul style="list-style-type: none"> ✓ Produce a range of free-standing frame structures of different shapes and sizes. ✓ Design a pavilion that is strong, stable and aesthetically pleasing. ✓ Select appropriate materials and construction techniques to create a stable, free-standing frame structure. ✓ Select appropriate materials and techniques to add cladding to their pavilion. 		<p>Torches Pupils who are secure will be able to:</p> <ul style="list-style-type: none"> ✓ Identify electrical products and explain why they are useful. ✓ Help to make a working switch. ✓ Identify the features of a torch and how it works. ✓ Describe what makes a torch successful. ✓ Create suitable designs that fit the success criteria and their own design criteria. ✓ Create a functioning torch with a switch according to their design criteria. 	
--------	--	--	---	--	--	--



Leverstock Green CE (VC) Primary School
Striving for excellence; caring for the individual.

Year 5		<p>Pop up books Pupils who are secure will be able to:</p> <ul style="list-style-type: none"> ✓ Produce a suitable plan for each page of their book. ✓ Produce the structure of the book. ✓ Assemble the components necessary for all their structures/mechanisms. ✓ Hide the mechanical elements with more layers using spacers where needed. ✓ Use a range of mechanisms and structures to illustrate their story and make it interactive for the users. ✓ Use appropriate materials and captions to illustrate the story. 		<p>Doodlers Pupils who are secure will be able to:</p> <ul style="list-style-type: none"> ✓ Explore series circuits further and introduces a new circuit component - the motor. ✓ Analyse an existing product that uses a motor - the Doodler (a scribble bot) ✓ Redesign it with their own preferred configuration ✓ Teach others how to make one by writing instructions as part of a DIY kit 		<p>What could be healthier? Pupils who are secure will be able to:</p> <ul style="list-style-type: none"> ✓ Understand how beef gets from the farm to our plates. ✓ Present a subject as a poster with clear information in an easy to read format. ✓ Contribute ideas as to what a 'healthy meal' means. ✓ Notice the nutritional differences between different products and recipes. ✓ Recognise nutritional differences between two similar recipes and give some justification as to why this is. ✓ Work as a team to amend a bolognese recipe with healthy adaptations. ✓ Follow a recipe to produce a healthy bolognese sauce. ✓ Design packaging that promotes the ingredients of the bolognese.
--------	--	--	--	---	--	---



Leverstock Green CE (VC) Primary School
Striving for excellence; caring for the individual.

Year 6		<p>Christmas Games Pupils who are secure will be able to:</p> <ul style="list-style-type: none"> ✓ Create five apparatus designs, applying the design criteria to their work. ✓ Make suitable changes to their work after peer evaluation. ✓ Make roughly three different structures from their plans using the materials available. ✓ Complete their structures, improving the quality of their rough versions and applying some cladding to a few areas. ✓ Secure their apparatus to a base. ✓ Make a range of landscape features using a variety of materials which will enhance their apparatus. 		<p>Soft Toys Pupils who are secure will be able to:</p> <ul style="list-style-type: none"> ✓ Consider a range of factors in their design criteria and use this to create a waistcoat design. ✓ Use a template to mark and cut out a design. ✓ Use a running stitch to join fabric to make a functional waistcoat. ✓ Attach a secure fastening, as well as decorative objects. ✓ Evaluate their final product. 		<p>This unit will be covered in computing using Tinkercad Navigating the world Pupils who are secure will be able to:</p> <ul style="list-style-type: none"> ✓ Incorporate key information from a client's design request such as 'multifunctional' and 'compact' in their design brief. ✓ Write a program that displays an arrow to indicate cardinal compass directions with an 'On start' loading screen. ✓ Identify errors (bugs) in the code and suggest ways to fix (debug) them. ✓ Self and peer evaluate a product concept against a list of design criteria with basic statements. ✓ Identify key industries that use 3D CAD modelling and why. ✓ Recall and describe the name and use of key tools used in Tinkercad (CAD) software. ✓ Combine more than one object to develop a finished 3D CAD model in Tinkercad. ✓ Complete a product pitch plan that includes key information.
--------	--	--	--	--	--	--