DT	Autumn Term	Spring Term	Summer Term
Year 1	**(AUT 1)** Design: • Design purposeful, functional, appealing products for themselves and other users based on design criteria • Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology Make: • Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] • Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics Evaluate: • Explore and evaluate a range of existing products • Evaluate their ideas and products against design criteria Technical knowledge • Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products. Technical knowledge • Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.	**(SPRING 1)** Cooking & Nutrition: • Learn how to cook and apply the principles of nutrition and healthy eating. Learn that cooking is one of the great expressions of human creativity. Cooking is also a crucial life skill that enables us to feed ourselves and others affordably and well, now and in later life. We are going to learn to: • Use the basic principles of a healthy and varied diet to prepare dishes • Understand where food comes from • Recognise that all food comes from plants or animals • Know that food has to be farmed, grown elsewhere (e.g. home) or caught Mastery: • Explain how it is grown and possible conditions and climate needed to grow it • How to name and sort foods into the five groups • Know that everyone should eat at least five portions of fruit and vegetables every day • How to prepare simple dishes safely and hygienically • Learn how to use techniques such as cutting, peeling and grating	**(SUMMER 2)** Design: • Design purposeful, functional, appealing products for themselves and other users based on design criteria • Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology Make: • Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] • Select from and use a wide range of materials and components, including construction materials, according to their characteristics Technical Knowledge: • Build structures, exploring how they can be made stronger, stiffer and more stable Evaluate: • Explore and evaluate a range of existing products • Evaluate their ideas and products against design criteria
	Vocabulary: **Wheel, axle, turn, turning force, momentum, rotate, mechanism, machine, body, shell, strengthen, reinforce, flex, friction, force. design, engineer, mechanic**	**Vocabulary: Food, food groups, nutrition, produce, fruit, vegetable, protein, carbohydrate, dairy, fats, oils, spreads, food pyramid, balanced diet,**	**Vocabulary: Tower, structure, purpose, Strong, strengthen, support, weight, materials, wood, metal, beam, crossbeam, platform, foundation, triangle, square, rectangle, flex, rigid, engineer, design, construction**
	Prior Learning: Early Years- • Use what they have learnt about media and materials in original ways, thinking about form, function and purpose • Make plans and construct with a purpose in mind using a variety of resources • Develop skills to use simple tools and techniques appropriately, effectively and safely	**Prior Learning: Early Years** • Cook and prepare food adhering to good health and hygiene routines	**Prior Learning: Early Years-** • Make plans and construct with a purpose in mind using a variety of resources • Develop skills to use simple tools and techniques appropriately, effectively and safely • Select appropriate resources for a product and adapt their work where necessary
Year 2	**(AUT 1)** Design: • Design purposeful, functional, appealing products for themselves and other users based on design criteria • Generate, develop, and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information model and communication technology Make: • Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] • Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics Evaluate: • Explore and evaluate a range of existing products • Evaluate their ideas and products against design criteria T Technical knowledge • Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.	(SUMMER 1) Design: • Design purposeful, functional, constructions for themselves and other users based on design criteria • Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology Make: • Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] • Select from and use a wide range of materials and components, including construction materials, according to their characteristics • Technical Knowledge: • Build structures, exploring how they can be made stronger, stiffer and more stable Evaluate: • Explore and evaluate a range of existing products • Evaluate their ideas and products against design criteria •	**(SUMMER 2)** Cooking & Nutrition: • Learn how to cook and apply the principles of nutrition and healthy eating. Learn that cooking is one of the great expressions of human creativity. Cooking is also a crucial life skill that enables us to feed ourselves and others affordably and well, now and in later life. • Use the basic principles of a healthy and varied diet to prepare dishes • Understand where food comes from • Recognise that all food comes from plants or animals • Know that food has to be farmed, grown elsewhere (e.g. home) or caught
	Vocabulary: Mechanism, slider, lever, rod, attach, connect, reinforce, stiffen, cut, join, attach, product, toy, finish, design, manufacture, make, evaluate	**Vocabulary: Bridge, structure, truss bridge, arch bridge, suspension bridge, beam bridge, purpose, strong, strengthen, support, weight, materials, wood, metal, beam, crossbeam, platform, foundations, triangle, square, rectangle, flex, rigid, engineer, design, construction**	**Vocabulary: Food, food groups, nutrition, produce, fruit, vegetable, protein, carbohydrate, dairy, fats, oils, spreads, food pyramid, balanced diet, healthy, unhealthy, in- moderation, hygiene**
	Prior Learning: Y1 **Science:** Everyday Materials – properties and purposes **DT:** To design, make and evaluate a vehicle, exploring and using wheels and axles	**Prior Learning: Y1** **DT:** To design, make and evaluate and build a structure exploring how they can be made stronger, stiffer and more stable - building	**Prior Learning: Y1** **DT:** Use the basic principles of a healthy and varied diet to prepare dishes To understand where food comes from/seasonal food – Making Healthy Pizza
Year 3	**(AUT1)** Design: • Generate, develop, model and communicate their ideas through discussion, annotated sketches and prototypes. • Demonstrate and apply drawing skills learnt in Art and Design Make:	**(SPRING1)** Cooking & Nutrition: • Understand and apply the principles of a healthy and varied diet • Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques	**(SUMMER 2)** Design: • Use research and develop design criteria to inform the design of functional, appealing prototypes that are fit for purpose. • Generate, develop, model and communicate their ideas through discussion, annotated sketches, diagrams and prototypes.

	• Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately • Select from and use a wider range of materials and components according to their functional properties and aesthetic qualities • Explain their choice of tools and equipment in relation to the skills and techniques they will be using • Order the main stages of making Technical Knowledge: • Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] • Know how mechanical systems such as levers and linkages or pneumatic systems create movement Evaluate: • Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work • Evaluate what they like and dislike about products and suggest alternatives and ways they can be improved	• Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed • That food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK, Europe and the wider world	Make: • Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately. • Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities. Evaluate: • Investigate and analyse a range of existing diagrams & models. • Evaluate our ideas and products against our own design criteria and consider the views of others to improve our work. Technical knowledge: • Apply our understanding of how to strengthen, stiffen and reinforce more complex structures.
	Vocabulary: Mechanism, puppet, linkage, control, reverse motion, parallel motion, bell crank, output, input, motion, lever, rod, attach, connect, reinforce, stiffen, cut, join, attach, product, toy, finish, design, manufacture, make, evaluate	**Vocabulary: Food, food groups, nutrition, produce, seasonality, caught, reared, produced, processed, fruit, vegetable, protein, carbohydrate, dairy, fats, oils, spreads, herbs, spices, regional, food pyramid, balanced diet, healthy, unhealthy, in- moderation, hygiene, portion, sweet, savoury, taste**	**Vocabulary: Volcano, vent, funnel, crater, crust, lava, pyroclastic flow, pyroclastic cloud, ash, tectonic plates, pressure, force, mountain, attach, connect, reinforce, stiffen, cut, join, attach, compress, tube, air pressure, chemical reaction, quantity, product, finish, design, manufacture, make, predict, evaluate**
	Prior Learning: **DT:** To design, make and evaluate a moving picture using mechanisms e.g. levers & sliders	**Prior Learning:** **DT:** Use the basic principles of a healthy and varied diet to prepare dishes – Cooking Indian food	**Prior Learning:** DT: To design, make and evaluate a structure, exploring how they can be made stronger, stiffer and more stable – bridges/construction techniques
Year 4	**(AUT 1)** **Design:** • Use research and develop design criteria to inform the design of innovative, functional, appealing prototypes that are fit for purpose • Generate, develop, model and communicate ideas through discussion, annotated sketches, cross-sectional and design led drawings **Make:** • Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately • Select from and use a wider range of materials and components, including construction materials according to their functional properties and aesthetic qualities **Technical Knowledge:** • Apply an understanding of how to strengthen, stiffen and reinforce more complex structures • Understand and use electrical systems [for example, series circuits incorporating switches, bulbs, buzzers and motors] **Evaluate:** • Investigate and analyse a range of existing products • Evaluate ideas and products against design criteria and consider the views of others to make improvements	**(SPRING 1)** Design: • Generate, develop, model and communicate their ideas through discussion, annotated sketches and prototypes. Make: • Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately • Select from and use a wider range of materials and components according to their functional properties and aesthetic qualities • Explain their choice of tools and equipment in relation to the skills and techniques they will be using • Order the main stages of making • Demonstrate and apply drawing skills learnt in Art and Design Technical Knowledge: • Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] • Know how mechanical systems such as levers and linkages or pneumatic systems create movement Evaluate: • Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work • Evaluate what they like and dislike about products and suggest alternatives and ways they can be improved	**(SUMMER 2)** Cooking & Nutrition: • Understand and apply the principles of a healthy and varied diet • Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques • Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed • That food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK, Europe and the wider world
	Vocabulary: Lighthouse, lamp, rotation, assemble, circuit, switch, light, motor, wire, battery, positive, negative, wire, current, attach, connect, reinforce, stiffen, cut, join, attach, product, toy, finish, design, manufacture, make, evaluate	**Vocabulary: Mechanism, automata, operate, control, linkage, control, reverse motion, forward motion, parallel motion, bell crank, output, input, motion, gear, gears, tooth, lever, rod, attach, connect, reinforce, stiffen, cut, join, attach, product, finish, design, manufacture, make, evaluate**	**Vocabulary: Food, food groups, nutrition, produce, seasonality, caught, reared, produced, processed, fruit, vegetable, protein, carbohydrate, dairy, fats, oils, spreads, herbs, spices, regional, food pyramid, balanced diet, healthy, unhealthy, in- moderation, hygiene, portion, sweet, savoury, taste**
	Prior Learning: **DT: Techniques used to construct a volcano model**	**Prior Learning:** **DT: Techniques used to construct a Marionette Skeleton**	**Prior Learning:** **DT: Year 3 cooking – Salads**
Year 5	**(AUT 2)**	**(SPRING 2)**	**(SUMMER 1)**

	Design: • Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups • Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams and prototypes **Make:** • Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately • Select from and use a wider range of materials and components, including construction materials, according to their functional properties and aesthetic qualities **Technical Knowledge:** • Apply their understanding of how to strengthen, stiffen and reinforce more complex structures • Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] **Evaluate:** • Investigate and analyse a range of existing products	**Design:** • Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups • Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design **Make:** • Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately • Select from and use a wider range of materials and components, including construction materials, according to their functional properties and aesthetic qualities **Technical Knowledge:** • Apply their understanding of how to strengthen, stiffen and reinforce more complex structures • Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] **Evaluate:** • Investigate and analyse a range of existing products	**Cooking & Nutrition:** • Understand and apply the principles of a healthy and varied diet • Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques • Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed •
	Vocabulary: Test, adapt, measure, low weight, attach, connect, reinforce, stiffen, cut, join, attach, product, finish, design, manufacture, make, evaluate	**Vocabulary: Platform, support, lift, crane, balance, weight, cable, column, arm, pulley, cog, trolley, base, axle, wheel, counter weight, operate, control, linkage, control, output, input, operate, motion, lever, rod, attach, connect, reinforce, stiffen, cut, join, attach, product, finish, design, manufacture, make, evaluate**	**Vocabulary: Food, food groups, nutrition, produce, seasonality, caught, reared, produced, processed, fruit, vegetable, protein, carbohydrate, dairy, fats, oils, spreads, herbs, spices, regional, food pyramid, balanced diet, healthy, unhealthy, in- moderation, hygiene, portion, sweet, savoury, taste**
	Prior Learning: **Viking Longboats**	**Prior Learning:** **Y4 DT: Lighthouse Models**	**Prior Learning:** **DT: Roasted Peach and Mozzarella Salad**
Year 6	**(AUT 1& 2)** **Design:** • Generate, develop, model and communicate ideas through discussion, annotated sketches, design led drawing, prototypes and models construction • Build on drawing skills (1- & 2-point perspective, sketching techniques, 3 D shape) • Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design **Make:** • Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately • Select from and use a wider range of materials and components, including construction materials according to their functional properties and aesthetic qualities **Technical Knowledge:** • Apply our understanding of how to strengthen, stiffen and reinforce more complex structures **Evaluate:** • Investigate and analyse existing cities and compare to designs. • Evaluate ideas and products against design criteria and consider the views of others to improve our work		**(SUM 1)** **Cooking & Nutrition:** • Understand and apply the principles of a healthy and varied diet • Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques • Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed
	Vocabulary: Architect, engineer, construct, plan, 3D, elevation, plan view, cross section, sustainability, sustainable materials, green space, energy, sustainable energy, peer on peer energy, eco-city, environment, regolith, gravity, model, attach, connect, reinforce, stiffen, cut, join, attach, product, finish, design, manufacture, make, evaluate		**Vocabulary: Food, food groups, nutrition, produce, seasonality, caught, reared, produced, processed, fruit, vegetable, protein, carbohydrate, dairy, fats, oils, spreads, herbs, spices, regional, food pyramid, balanced diet, healthy, unhealthy, in- moderation, hygiene, portion, sweet, savoury, taste**
	Prior Learning: DT: Flying Machines		**Prior Learning:** **Y5 DT: Cooking Curry**