ADVENT TERM Design Technology – Year 4 - Medium Term Planning – Food and Nutrition Design and make packaging for a healthy snack		
LESSON 1	**LESSON 2**	**LESSON 3**
LEARNING INTENTION: To know that decay can be prevented or delayed by preservation methods. Skills: To explain how and why a significant designer or inventor shaped the world. Aim: Build and apply a repertoire of knowledge understanding and skills in order to design and make high quality products for a wide range of users.	**LEARNING INTENTION:** To know that food packaging is made to keep food fresh for longer but needs to be environmentally friendly. Skills: To describe the importance of cutting down on the use of single-use plastics and non-recyclable materials. Aim: Build and apply a repertoire of knowledge understanding and skills in order to design and make high quality products for a wide range of users.	**LEARNING INTENTION:** To know that most cardboard packaging is produced from a net. Skills: Use annotated sketches and exploded diagrams to test and communicate their ideas. Aim: Develop the creative, technical, and practical expertise to perform everyday tasks confidently and to participate successfully in an increasingly technological world.
Key Vocabulary: Decay, deteriorates, pasteurization, microorganisms.	**Key Vocabulary:** Design features, preserve, investigate, packaging	**Key Vocabulary:** Annotated sketches, exploded diagrams, nets, shell frame.
Recap & retrieval Recap Year 3: • Key inventions in design and technology have changed the way people live.	**Recall & retrieval** • Decay can be prevented or delayed by preservation methods, such as drying, salting, pickling, canning, pasteurising, refrigerating or freezing the food.	**Recall & retrieval** • Decay can be prevented or delayed by preservation methods, such as drying, salting, pickling, canning, pasteurising, refrigerating or freezing the food. • Plastic is a harmful and wasteful material because it takes thousands of years to break down.
Key Knowledge: **Child:** • Food deteriorates due to the growth of microorganisms.	**Key Knowledge:** **Child:** • Food packaging is important for several reasons.	**Key Knowledge:** **Child:** • Food packaging is produced using a net, which is a 2-D piece of material that is folded and secured to make a 3-D shape.

• Decay can be prevented or delayed by preservation methods, such as drying, salting, pickling, canning, pasteurising, refrigerating or freezing the food. • Food packaging plays an important role in keeping foods fresh. • The 'use by' date shows when the food is no longer safe to eat. • The 'best before' date shows the date after which the food will lose some flavour or texture. **Teacher:** • By the 1990s, consumers did not understand how long their products would actually last. • As a result, sell by dates were creating heaps of food waste. • Use by and best before dates are the outcome of work by campaigners who asked for something more accurate than a sell by dates • In 1864, French scientist Louis Pasteur invented the pasteurization process after experimenting with heated wine.	• Plastic is a harmful and wasteful material because it takes thousands of years to break down. **Teacher:** • Food packaging protects food, makes food last longer, makes it easier to transport, makes food encourages people to buy it and provides information about the product. • 36% of plastics are used in packaging of which 85% of single use plastics ends up in landfills. • Significant designers and inventors can shape the world. • Design features are the aspects of a product's design that the designer would like to emphasise, such as the use of a particular material or feature that makes the product easier to use or more durable.	• Annotated sketches and exploded diagrams show specific parts of a design, highlight sections or show functions. **Teacher:** • They communicate ideas in a visual, detailed way. • Shell and frame structures can be strengthened by gluing several layers of card together, using triangular shapes rather than squares, adding diagonal support struts and using 'Jinks' corners (small, thin pieces of card cut into a right-angled triangle and glued over each joint to straighten and strengthen them).

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LESSON 4	**LESSON 5**	**LESSON 6**
LEARNING INTENTION: To know that a product must be fit for purpose. Skills: Design a healthy snack or packed lunch and explain why it is healthy. Aim: Build and apply a repertoire of knowledge understanding and skills in order to design and make high quality products for a wide range of users.	**LEARNING INTENTION:** To know that you can modify a design after discussing with others. Skills: Design a healthy snack or packed lunch and explain why it is healthy. Choose from a range of materials, showing an understanding of their different characteristics. Aim: Develop the creative, technical, and practical expertise to perform everyday tasks confidently and to participate successfully in an increasingly technological world.	**LEARNING INTENTION:** To know that testing a product can help evaluate the successes and identify the improvements. Skills: Identify what has worked well and what aspects of their products could be improved, acting on their own suggestions and those of others when making improvements Aim: Critique, evaluate and test their ideas and products and the work of others.
Key Vocabulary: Healthy, packaging, taste, practicality.	**Key Vocabulary:** Materials, components, best before, use by, healthy, packaging.	**Key Vocabulary:** Evaluation, design criteria, evidence, supervision.
Recall & retrieval • Decay can be prevented or delayed by preservation methods, such as drying, salting, pickling, canning, pasteurising, refrigerating or freezing the food. • Plastic is a harmful and wasteful material because it takes thousands of years to break down. • Food packaging is produced using a net, which is a 2-D piece of material that is folded and secured to make a 3-D shape.	**Recall & retrieval** • Decay can be prevented or delayed by preservation methods, such as drying, salting, pickling, canning, pasteurising, refrigerating or freezing the food. • Plastic is a harmful and wasteful material because it takes thousands of years to break down. • Food packaging is produced using a net, which is a 2-D piece of material that is folded and secured to make a 3-D shape. • Healthy snacks include fresh or dried fruit and vegetables, nuts and seeds, rice cakes with low-fat cream cheese, homemade popcorn or chopped vegetables with hummus.	**Recall & retrieval** • Decay can be prevented or delayed by preservation methods, such as drying, salting, pickling, canning, pasteurising, refrigerating or freezing the food. • Plastic is a harmful and wasteful material because it takes thousands of years to break down. • Food packaging is produced using a net, which is a 2-D piece of material that is folded and secured to make a 3-D shape. • Healthy snacks include fresh or dried fruit and vegetables, nuts and seeds, rice cakes with low-fat cream cheese, homemade popcorn or chopped vegetables with hummus.

		• Foods need packaging to keep them fresh, safe to eat and free from damage. • Food packaging also provides nutritional information, 'use by' and 'best before' dates, and the materials and recyclability of the packaging.
Key Knowledge: **Child:** • Healthy snacks include fresh or dried fruit and vegetables, nuts and seeds, rice cakes with low-fat cream cheese, homemade popcorn or chopped vegetables with hummus. **Teacher:** • Cooking techniques include baking, boiling, frying, grilling and roasting. • A healthy packed lunch might include a brown or wholemeal bread sandwich containing eggs, meat, fish or cheese, a piece of fresh fruit, a low-sugar yoghurt, rice cake or popcorn and a drink, such as water or semi-skimmed milk.	**Key Knowledge:** **Child:** • Foods need packaging to keep them fresh, safe to eat and free from damage. • Food packaging also provides nutritional information, 'use by' and 'best before' dates, and the materials and recyclability of the packaging. • Different materials and components have a range of properties, making them suitable for different tasks. **Teacher:** • It is important to select the correct material or component for the specific purpose, depending on the design criteria. • Recipe ingredients have different tastes and appearances. • They look and taste better and are cheaper when in season.	**Key Knowledge:** **Child:** • Evaluation also includes suggesting improvements and explaining why they should be made. **Teacher:** • Evaluation can be done by considering whether the product does what it was designed to do, whether it has an attractive appearance, what changes were made during the making process and why the changes were made.
Assessment Cumulative Quiz. Retrieval Practice.		