St. Peter's Elwick C of E & Hart Primary Schools

DT Curriculum Coverage

Cycle A Upper Key Stage 2 (5/6)

To enable children to make sense of the 'made world' in which they live through applying their substantive and disciplinary knowledge to design solutions to solve problems, preparing them for work in design industries.

		Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
A	Year 5	DT Links with Shackleton topic and energy consumption.	**Art**	Art	DT and Art -Living eggs and difference between chickens raised for eggs and chickens produced for meat. -Use of Pesticides is covered in Science. - Importance of this topic due to local obesity rate.	**Art**	Links with our Global goals. STEM links with science and forces.
		     					 
		Cross Sectional Diagrams			Super Seasonal Cooking		Mechanical Systems - Pulleys or gears
		Design Brief: To create a cross sectional diagram of an energy bar.			Design brief: To design your own balanced seasonal meal.		**Design Brief:** To design, build and test a way of moving tomatoes that won't squash them! **https://practicalaction.org/schools/squashed-tomato-challenge/.** **Squashed tomato challenge.**
		• To Understand how a cross sectional diagram should be set out. • To know why cross sectional diagrams are used. • Explore a range of cross sectional diagrams and be able to say what is similar and how they differ in relation to their purpose. • Explore how different energy bars/ chocolate bars are made/structured. How are they similar/different? • Explain why cross sectional diagrams are useful within many different industries. How do they enable the designer/engineer to ensure they are creating the product in the correct way? • Evaluate current energy bars and how effective they are. • Draw a cross sectional diagram of an existing chocolate bar. • Generate ideas for an energy bar of their choice. • Draw a cross sectional diagram of their own energy bar. • Evaluate the effectiveness of their friends cross sectional diagram.			• Understand what seasonality means. • To understand seasonality in the context of tasting food that is in season. • Name some foods which are grown, reared, caught and processed. • Generate a range of ideas for balanced seasonal recipes. • Prepare a range of ingredients and understand how to store and handle meat and fish correctly. hygienically. • Prepare, assemble/cook ingredients. • To be able to independently select appropriate cutting technique depending on ingredient and size and shape of pieces required. • Know when different fruit and vegetables are in season in the United Kingdom. • Explain where and how a variety of ingredients are grown, reared, caught and processed. • To know the importance of protein in the diet. • Use a wide range of preparation and cooking techniques including adjusting: cooking times, ingredients, methods and temperatures.		• To know how a pulley system works and the impact this mechanism has on a force. • To understand how gears work and the various ways in which gears can be used. • To use previous Design knowledge to work together in a team to create a design that meets given criteria (criteria are within the pack on above link) • To test and amend designs during the design and make process. • To develop problem solving, team work and presentation skills. • To develop a greater understanding of how pulleys or gears create movement. • To design and make products with greater independence.

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	Year 6				Describe when most foods are in season in the United Kingdom including fruit, vegetables, meat and fish. • Know where and how ingredients are grown, reared, caught and processed and that some regions of the UK specialise in specific ingredients. • Create, evaluate and refine seasonal recipes which include a balance of ingredients. • Understand the importance of correct storage and handling of meat and fish using knowledge of cross contamination and bacteria. • Use and evaluate a wide range of preparation and cooking techniques including adjusting: cooking times, ingredients, methods and temperatures.		
	Key Vocabulary	• Surface • Profile • Sliced through • Cross sectional • Cutting plane • Engineering • Cross section shape • Horizontal • Vertical • Inter-section • Parallel			Year 3 and 4 plus: • Grown • Reared • Caught • Processed • Organic • Season • Meat handling • Storage • Hygiene • Food safety • adjusting: cooking times • ingredients • methods • temperatures • cross contamination • bacteria		• pulley • drive belt • Gear • Rotation • Spindle • Driver • Follower • Ratio • Transmit • Axle • annotated drawings • exploded diagrams • mechanical system • input • process • output • design decisions • functionality • innovation • authentic • user • purpose • design specification • design brief

***The topics highlighted are covered only once within the two year cycle therefore all children should be working from the lower year group objectives and any more able/ GAT children should be pushed to extend knowledge by the higher year group objectives where necessary.