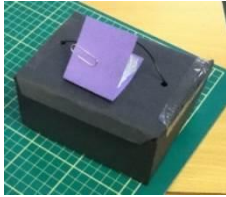
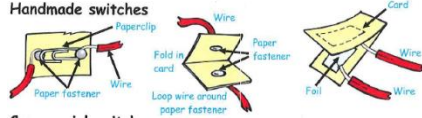
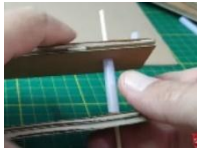


Y4 Design and Technology	TERM 1		TERM 2		TERM 3	
	Conflicts – Britain at war MECHANISMS (simple circuits, Morse code machine and switches) DT WEEK FOCUS – MORSE CODE MACHINES		Civilisation – Ancient Greece MECHANISMS		Change (Food – healthy and varied diet including cooking and nutrition) Healthy wrap	
	Key knowledge To know Morse code uses dots and dashes to communicate letters and numbers. To know electrical devices can use a variety of switches including push, pivot, slide. To know a 3D box can be made from a 2D printed net. To know push switches are the most effective for a Morse code machine. To understand and implement the key parts of the design process (design, make, evaluate). 	Key skills To be able to use research and develop design criteria. To be able to construct different types of switches using a variety of materials. To be able to join a variety of components together to create a series circuit with a buzzer. To be able to construct boxes. To be able to use tools safely – Stanley knife, cutting board, metal ruler with – assistance. To be able to create a written evaluation commenting on more than one aspect of the design criteria with justifications. 	Key knowledge To know mechanisms/mechanical systems use related components that act together to create a movement. To know motion is movement from one place to another. To know a pivot is a turn on a central point. To know the lever is the simplest type of mechanism. A lever is a stiff bar which moves around a pivot. To know linkage is the part of the mechanism used to join one or more levers to produce the type of movement required. To know a loose pivot joins the levers together. To know a fixed pivot joins the levers to the overall object. 	Key skills To be able to use research and develop design criteria. To be able to construct different types of levers and mechanisms using a variety of materials. To be able to describe how a hydraulic lever system works. To be able to write an evaluation commenting on more than one aspect of the design criteria with justifications. 	Key knowledge To know and name a variety of everyday foods and the five food groups. To know the food pyramid shows us how much of each food group we need. To know healthy wraps need balanced ingredients. To understand the key parts of the design process (design, make, evaluate). 	Key skills To be able to independently cut using a knife. To be able to grate using a grater. To be able to chop using a knife. To be able to prepare food hygienically. To be able to increase confidence in using the claw grip and bridge hold grip to safely use knives. To be able to write an evaluation commenting on more than one aspect of the design criteria with justifications. 
	Enquiry/question/outcome/activity/genre of unit/text To design and make a Morse code machine (linked to science).		Enquiry/question/outcome/activity/genre of unit/text To design and make a hydraulic lever system (linked to science and learning themes of the ancient Greeks).		Enquiry/question/outcome/activity/genre of unit/text To design, prepare and make a healthy snack.	
	Key vocabulary (tier 2) battery break buzzer cables cell circuit dash dot series signal switch	Key vocabulary (tier 3) component conductor insulator iterative Morse code parallel pivot pivot switch push switch slide switch	Key vocabulary (tier 2) backwards direction down fixed forward left loose motion movement pull push right stiff up	Key vocabulary (tier 3) design criteria fulcrum hydraulic justification lever linkage pivot syringe system	Key vocabulary (tier 2) balanced chop cut evaluate fats food groups fruit grate healthy mix peel sugars variety vegetables	Key vocabulary (tier 3) bridge hold carbohydrates claw grip dairy food pyramid hygienic protein