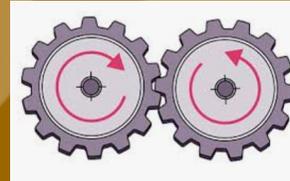
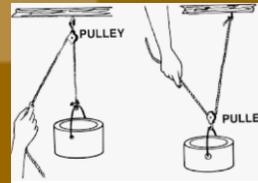


What I should know already

 information is from different sources	 use a range of mechanisms	 need for adaptable step by step plans
 choose best materials to use, understand characteristics	 combine materials with support	 analyse potential of tools
 Follow health and safety rules	 use tools accurately	 select and use appropriate joining techniques

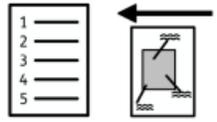
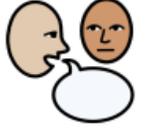


gears



pulleys

The Design Process

 research	 design product	 make product	 evaluate product
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Vocabulary

Mechanism-A device used to create movement in a product.

Lever- A rigid beam that can rotate around a fixed point called the fulcrum.

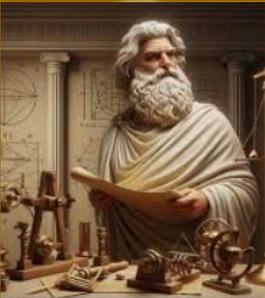
Linkage- A mechanism made by connecting together rigid links or levers.

Gears- Wheels with teeth that slot together. When one turns the other turns too. They work in three ways: To increase the turning force. Small gears turn quickly but with a smaller force, whereas large gears turn slowly with a greater force.

Pulley- A simple machine which is useful for lifting things. It reduces the effort required to raise a load. It consists of a wheel with a groove through which a string or rope runs. The rope has a **load** on one end and someone or something pulling at the other end.

System-A set of related parts or components used to create an outcome. Systems have an input, process and output. In a lever and linkage mechanism, the 'input movement' is where the user pushes or pulls. The 'output movement' is where one or more part moves.

Archimedes



Pulleys date back at least to Archimedes (287 BC - 212 BC). He was a Greek mathematician, physicist, and engineer. He designed a block-and-tackle system to move massive ships. Pulley systems allow us to lift a load by using a force that is less than the weight of the load.

The Design Process



Seasonality

Seasonal food is the time of year when food is at its best, in terms of flavour or harvest.

Many foods are available all year, as they are imported from other countries.

When local seasonal food is available it tends to be fresher and cheaper - there has been less travel/storage from farm to fork.

What I should already know

 how to prepare for cooking	 make healthy eating choices and explain why	 select tools, explain choices and use them safely
 how to use health and safety rules	 prepare/ cook savoury dishes using learnt skills	 investigate ingredients of food products
 suggest improvements and how to implement	 explain some processes used to preserve food/ make more appealing	 how to clean, tidy, wash up

Vocabulary

Knead- The process of working a dough mixture to help evenly distribute ingredients and incorporate air into the dough.

Rub in- To mix together flour and fat using the fingertips until it resembles fine bread crumbs.

Preserve- Processes used to help food to last longer without going bad eg. pickling, making jam.

High resistant food- These are foods that have a hard consistency which makes them harder to cut eg. Celery, carrot, raw potato, apple.

Seasonal- The time of year that foors are harvested and are at the peak for good flavour.

Swivel peeler- A peeler with a blade mounted on a pivot for ease of use.

Visually appealing- Something that looks attractive and pleasing.

Healthy food combinations- A mixture of a variety of foods from the food groups that are good for you.



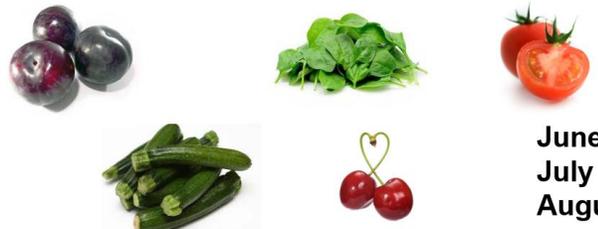
Winter season

**December
January
February**



Autumn season

**September
October
November**



Summer season

**June
July
August**

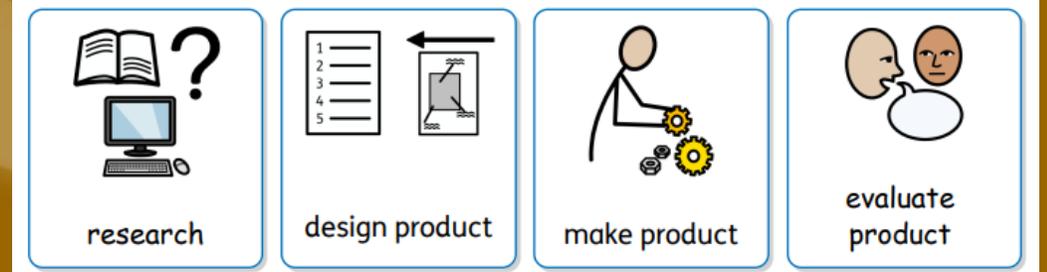


Spring season

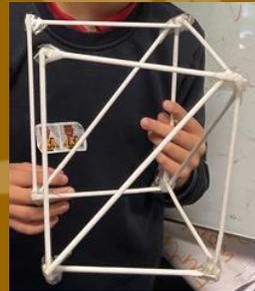
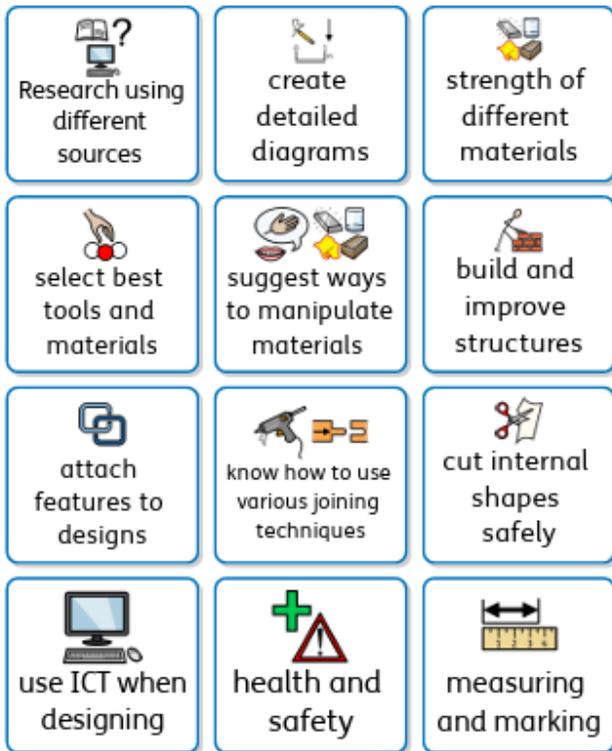
**March
April
May**



The Design Process



What I should know already



Frame structure prototype



Exemplars of frame structures

Vocabulary

Prototype- A product built to test ideas and changes until it resembles the final product.

Triangulation- The use of triangular shapes to strengthen a structure

Framework- A structure made by joining together a number of pieces of wood, metal, card or plastic

Cladding- The use of sheet material to cover a frame structure

Modifying- To alter or change a design