



ALDER COPPICE PRIMARY SCHOOL

DESIGN & TECHNOLOGY

DESIGN

MAKE

TECHNICAL KNOWLEDGE

FOOD TECHNOLOGY

EVALUATE

KS3 aims

use research and exploration to identify and understand user needs
 > identify and solve their own design problems
 > develop specifications to inform the design of innovative, functional, appealing products
 > use a variety of approaches to generate creative ideas and avoid stereotypical responses
 > develop and communicate design ideas using annotated sketches, detailed plans, 3-D and mathematical modelling, oral and digital presentations and computer-based tools

**D
E
S
I
G
N**

select from and use specialist tools, techniques, processes, equipment, and machinery precisely, including computer-aided manufacture
 > select from and use a wider, more complex range of materials, components, and ingredients, taking into account their properties

understand and use the properties of materials and the performance of structural elements to achieve functioning solutions
 > understand how more advanced mechanical systems used in their products enable changes in movement and force
 > understand how more advanced electrical and electronic systems can be powered and used
 > apply computing and use electronics to embed intelligence in products that respond to inputs [for example, sensors], and control outputs [for example, actuators], using programmable components [for example, microcontrollers].

Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life
 understand and apply the principles of nutrition and health
 > cook a repertoire of predominantly savoury dishes so that they are able to feed themselves and others a healthy and varied diet
 > become competent in a range of cooking techniques
 > understand the source, seasonality and characteristics of a broad range of ingredients.

Analyse the work of past and present professionals and others to develop and broaden their understanding
 > investigate new and emerging technologies
 > test, evaluate and refine their ideas and products against a specification, taking into account the views of intended users and other interested groups
 > understand developments in design and technology, its impact on individuals, society and the environment, and the responsibilities of designers, engineers and technologists

MAKE

Year 6

Market research
 Follow /refine plans
 Begin to understand design implications – resources/time
 Use computer based tools for design

To know which tool to use for a specific practical task
 To know how to use any tool correctly and safely

Textiles – to know how to use a range of techniques to join and for aesthetic purposes
 Use technical vocabulary linked to the project

Evaluate their products, identifying strengths and areas for development,

MAKE

DESIGN

TECHNICAL

FOOD TECH

EVALUATE

To be able to explain why a specific tool is best for a specific action

Carry out appropriate tests linked to the design criteria

Year 5

Use sources to generate ideas
 To know how to create a detailed plan
 Design for audience

To know how to use a range of tools competently
 Joining and combining materials/ingredients according to their function

Structures - Bridges
 Know how to select materials for a purpose
 Know why specific designs of the past have been used
 Know how to strengthen or repair structures
Electrical components – circuits in a product

To know the difference between sweet and savoury
 To know how to be hygienic and safe
 To know how to prepare a meal
 To add a creative element to a recipe

Be able to suggest alternative ideas and plans
 Evaluate a product against the original design specification

FOOD TECH

EVALUATE

Year 4

To generate design criteria
 To know when and how to adapt work
 To communicate ideas in a range of ways

To know how to follow a plan and select materials

Textiles – sewing techniques
Mechanisms - cams/gears

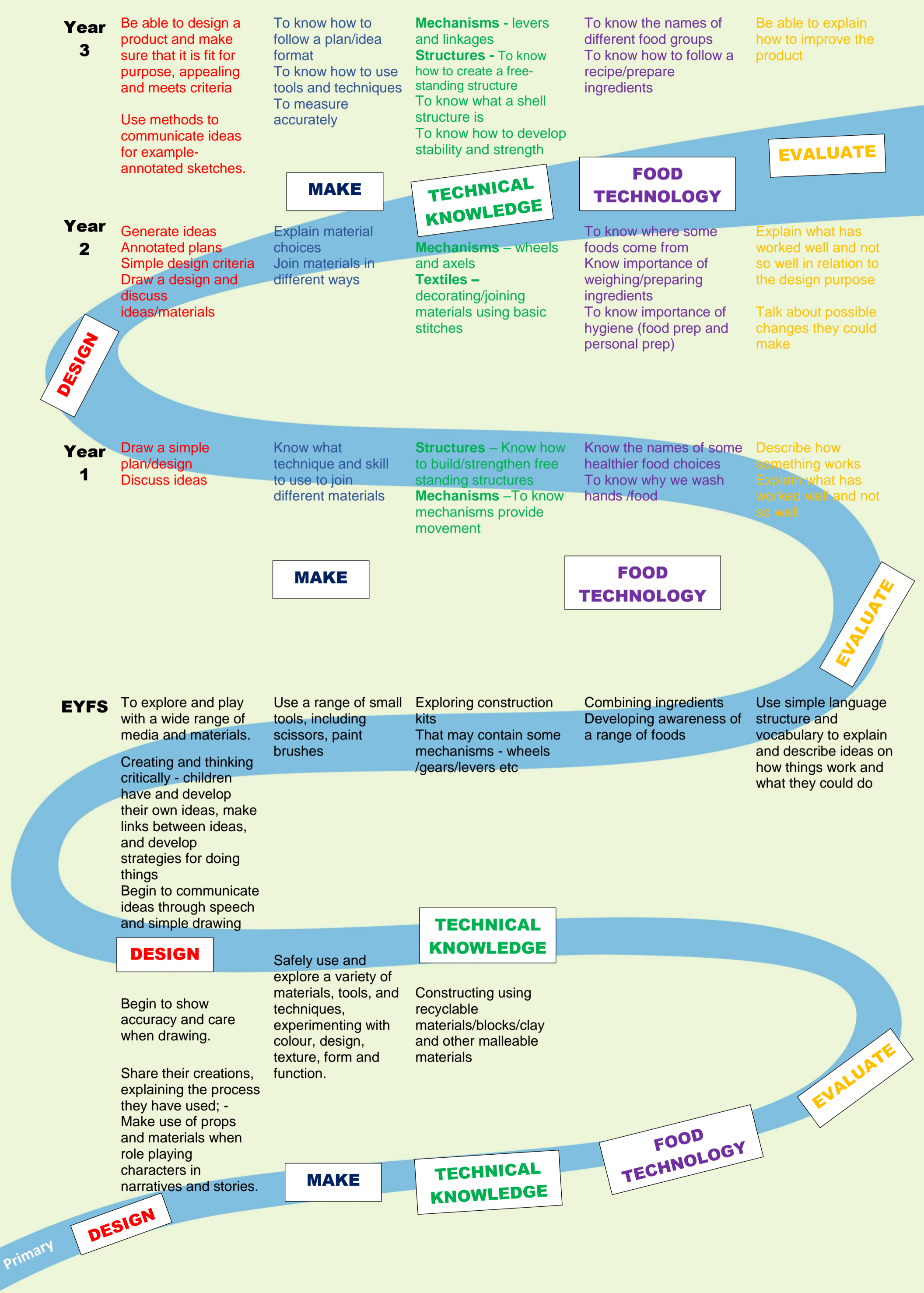
To select appropriate utensils to use to prepare their product and demonstrate some skill
 To know how to follow a recipe/prepare ingredients
 To know where food comes from including processed/fresh foods
 To explain how to be both hygienic and safe when preparing and storing food

Evaluate their product against design criteria
 Suggest ways to test and improve their product
 Explain how the original design has been improved

MAKE

TECHNICAL KNOWLEDGE

DESIGN



Year 3

Be able to design a product and make sure that it is fit for purpose, appealing and meets criteria

Use methods to communicate ideas for example- annotated sketches.

To know how to follow a plan/idea format
To know how to use tools and techniques
To measure accurately

Mechanisms - levers and linkages
Structures - To know how to create a free-standing structure
To know what a shell structure is
To know how to develop stability and strength

To know the names of different food groups
To know how to follow a recipe/prepare ingredients

Be able to explain how to improve the product

MAKE

TECHNICAL KNOWLEDGE

FOOD TECHNOLOGY

EVALUATE

Year 2

Generate ideas
Annotated plans
Simple design criteria
Draw a design and discuss ideas/materials

Explain material choices
Join materials in different ways

Mechanisms – wheels and axels
Textiles – decorating/joining materials using basic stitches

To know where some foods come from
Know importance of weighing/preparing ingredients
To know importance of hygiene (food prep and personal prep)

Explain what has worked well and not so well in relation to the design purpose
Talk about possible changes they could make

DESIGN

Year 1

Draw a simple plan/design
Discuss ideas

Know what technique and skill to use to join different materials

Structures – Know how to build/strengthen free standing structures
Mechanisms –To know mechanisms provide movement

Know the names of some healthier food choices
To know why we wash hands /food

Describe how something works
Explain what has worked well and not so well

MAKE

FOOD TECHNOLOGY

EVALUATE

EYFS

To explore and play with a wide range of media and materials.
Creating and thinking critically - children have and develop their own ideas, make links between ideas, and develop strategies for doing things
Begin to communicate ideas through speech and simple drawing

Use a range of small tools, including scissors, paint brushes

Exploring construction kits
That may contain some mechanisms - wheels /gears/levers etc

Combining ingredients
Developing awareness of a range of foods

Use simple language structure and vocabulary to explain and describe ideas on how things work and what they could do

DESIGN

TECHNICAL KNOWLEDGE

Begin to show accuracy and care when drawing.

Safely use and explore a variety of materials, tools, and techniques, experimenting with colour, design, texture, form and function.

Constructing using recyclable materials/blocks/clay and other malleable materials

Share their creations, explaining the process they have used; -
Make use of props and materials when role playing characters in narratives and stories.

MAKE

TECHNICAL KNOWLEDGE

FOOD TECHNOLOGY

EVALUATE

Primary

DESIGN