

Food route



Food Science and Nutrition:
Revise and practice exam papers in preparation for your final exam in FOOD

FINAL GCSE EXAM
50% final grade

Analyse & Evaluate your Final dishes
Detailed analysis of your final dishes – how well did they meet the specification?



EXAM REVISION

PLANNING FOR AND MAKING THE FINAL DISHES: Using the knowledge from your technical cooks – plan for at least 3 final dishes to be cooked in your 3 hour practical exam



PLAN AND COOK 4 DISHES. Using your research. Make sure they are suitable for your brief and contain as many high level technical skills as possible

SELECT YOUR BRIEF:
Do your research – it needs to be relevant. Summarise what you have found.

Analyse & Evaluate
Look at your results, discuss if they are what you expected, if not why not? Evaluate your findings



NEA1 COURSEWORK
15% final grade

YEAR 11



Research
Research the science related to their chosen brief. Write a hypothesis based on your research

In Year 11 one lesson in five will be theory – first focusing on unfinished exam content and then on revising topics from Year 10

Bread: Function of ingredients, raising agents. Science of yeast and non yeast doughs. Lean and enriched doughs

Making Term 2:
Bread rolls, Meringues, Choux & Cinnamon rolls

Sources, types and nutritional value. Primary and secondary processing. **Knife skills:** portioning, filleting & de-skinning

BREAD & EGGS

PROTEIN: HBV/LBV

FATS & OILS

FOOD PROVENANCE

NUTRITIONAL NEEDS

Macronutrients: Introduction to basic nutrition, understand why we need energy and where we get it from. Focus on Carbohydrates – their source, function and the effects of deficiency and excess

Making:Term 1:
Vegetable Soup & Cheese scones, Cottage Pie, Roux Pasta Bake

CARBOHYDRATES

Make: Soldering PCB's, making cases using customised lasercut parts.

Core Theory: Electronics

Design: Designing for a target audience and using CAD to embellish speaker for specific user

Theory: Mechanisms theory including cams, levers, linkages and gears

Make: Using timbers to produce a mechanical toy

Mechanisms Project

Design: Designing a creative and fun mechanical toy using cams, linkages and/or gears

Make: Sublimation printed work that has been scanned in, embroidered / machine stitching over the top. Piece has a combination of mixed media to portray their identity, which can be attached to a bag / placed within a photo frame.

Materials: Mixed media, polyester fabric, sublimation printing

Artists: Maurizio Anseri, Deborah Klein, Nathaniel Mary Quinn, Picasso, Susie Vickery

DAY OF THE DEAD BAG

Design: Creating a self identity piece reflecting the student's personality, interests and features

YEAR 10

SPEAKER PROJECT

KS4

After choosing GCSE options in year 9, we focus your studies in years 10 & 11, through exciting, real life projects. Deepen your understanding of DT in the world around us whilst developing products that help various needs and users.

Design: Isometric projection, CAD development
CAM – use of laser cutter to customize casing

Testing / Modelling: Will my product work? What can I do to improve it?

Design: Using food as your inspiration – create a decorative panel inspired by your favourite foods



Make: Sublimate your design panel. Produce a high-quality case focusing on accuracy and detail

Origin of food: field to plate. Function of ingredients. Review and apply Eatwell guide, designing food which fuses culture

Making: Curried vegetable rice, Fajitas, Pizza & 'Your fusion dish'

BUILDING HEALTHY FOOD HABITS FOR LIFE

Making: Bread Whirls, Chickpea/potato curry, Pasties, Roux Pasta Bake

What are the Healthy Eating Recommendations? What is a menu plan? Do you know what eating the colours of the rainbow are? Did you know that some types of food are more energy dense than others? What is HPF? Students are shown how to meal plan based on Healthy Choices of Food. In their practical they are introduced to some higher-level skills – Shaped bread, reduction and roux sauces and ruff puff pastry.

Advanced soldering: soldering flying leads onto components



Design: Designing for a specific user. Detailed circuits, input process and out puts. Switches, capacitors, motors.

HAND HELD FAN

Evaluate: At each stage of making, how can you improve your product? Would you change anything?



Make: Focus on high quality finish. Using mitre & tenon saws, sander and chisel for joints. Engraving with laser cutter

FUSION FOOD

Design: Designing for a user and client. What is an isometric projection? Develop design ideas using CAD

Materials: Wood classification. Where does timber come from? What is plywood? What are its properties?

PHONE STAND



Nutrition: Eatwell guide, 5-a-day campaign and the nutritional panels on food packaging

Making: Pasta salad, Carrot cake, Quesadilla, Pizza and Cheese & courgette scones.

FOOD FOR A HEALTHY LUNCHBOX

YEAR 8

Work in more depth on projects, honing your practical skills, improving your resilience & problem solving whilst developing independence in the workshop.

Make: Simple circuit including soldering
Saws and files used to shape base. use of card, paper and pen to model shape of product

Materials: Working with recycled fabrics. Impact of textiles on the environment

Make: Joining techniques. Sewing by hand and by sewing machine

PATCHWORK POPART CUSHION

Evaluate: Does your product work? How can you fix problems?

Design: Basic 2D drawing techniques. Working with geometric shapes
Lay planning

ACRYLIC KEYRING

Introduction to the workshop: Health and Safety

YEAR 7

Experience a wide range of fun and exciting projects that teach you valuable skills in the workshop, understanding different materials and how they work.

Materials: Electrical components. What is a circuit?



Evaluate: What makes a good keyring? How can you improve your skills?



Make: Shaping wire
Heat setting
Cutting to shape
Embossing acrylic
Abrading to a high-quality finish
Drilling

Design: Designing for users
Shading & Rendering

Materials: Acrylic – origin, types and material properties

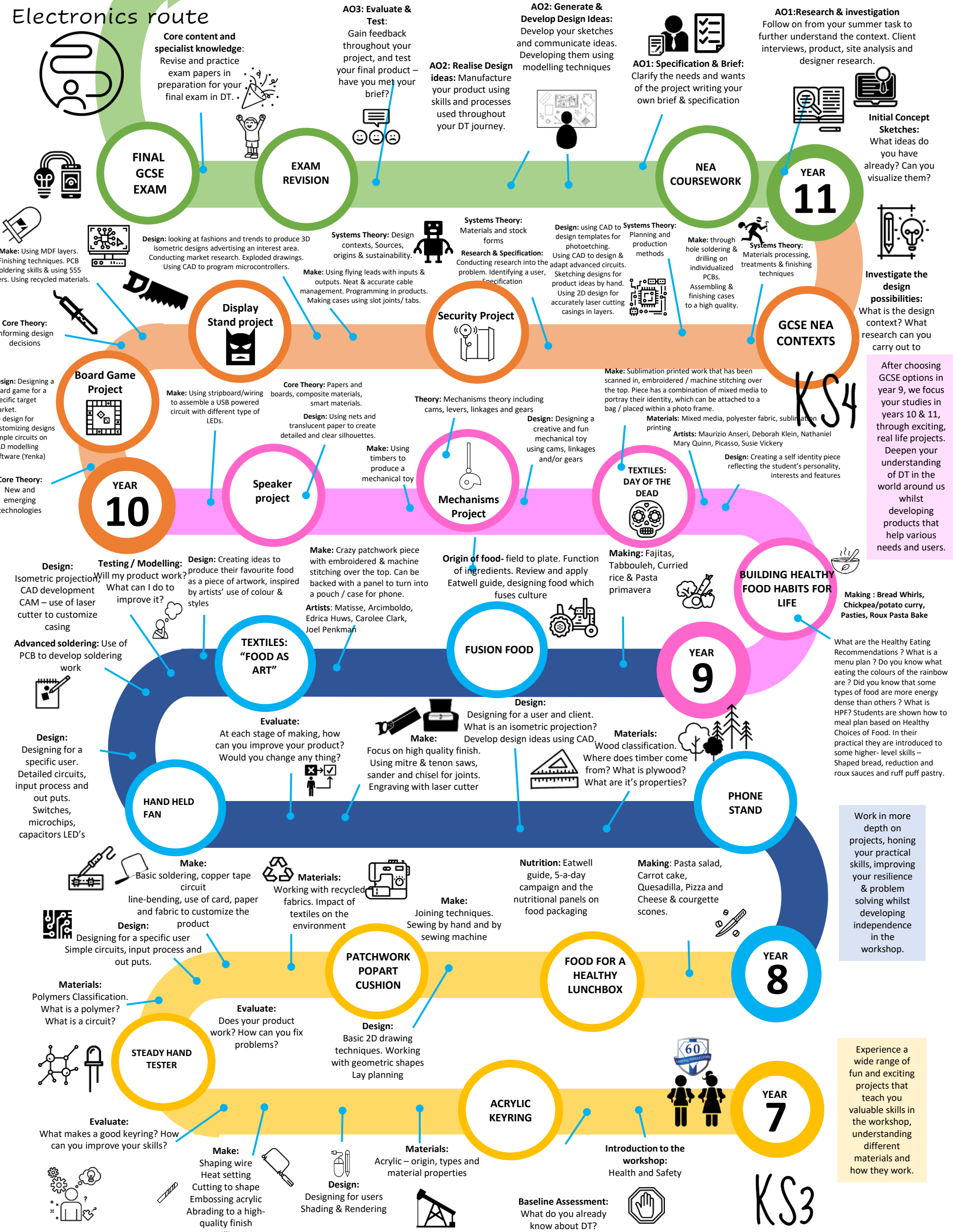


Baseline Assessment: What do you already know about DT?



KS3

Electronics route



Core content and specialist knowledge:
Revise and practice exam papers in preparation for your final exam in DT.

FINAL GCSE EXAM

EXAM REVISION

AO3: Evaluate & Test:
Gain feedback throughout your project, and test your final product – have you met your brief?

AO2: Realise Design ideas: Manufacture your product using skills and processes used throughout your DT journey.

AO2: Generate & Develop Design Ideas: Develop your sketches and communicate ideas. Developing them using modelling techniques

AO1: Specification & Brief: Clarify the needs and wants of the project writing your own brief & specification

AO1: Research & investigation
Follow on from your summer task to further understand the context. Client interviews, product, site analysis and designer research.

Initial Concept Sketches:
What ideas do you have already? Can you visualize them?

YEAR 11

NEA COURSEWORK

Design: looking at fashions and trends to produce 3D isometric designs advertising an interest area. Conducting market research. Exploded drawings. Using CAD to program microcontrollers.

Systems Theory: Design contexts, Sources, origins & sustainability.

Systems Theory: Materials and stock forms
Research & Specification: Conducting research into the problem. Identifying a user, specification

Design: using CAD to design templates for photoetching. Using CAD to design & adapt advanced circuits. Sketching designs for product ideas by hand. Using 2D design for accurately laser cutting casings in layers.

Systems Theory: Planning and production methods

Make: through hole soldering & drilling on individualized PCBs. Assembling & finishing cases to a high quality.

Systems Theory: Materials processing, treatments & finishing techniques

Investigate the design possibilities:
What is the design context? What research can you carry out to

GCSE NEA CONTEXTS

KS4

After choosing GCSE options in year 9, we focus your studies in years 10 & 11, through exciting, real life projects. Deepen your understanding of DT in the world around us whilst developing products that help various needs and users.

Core Theory: Informing design decisions

Display Stand project

Security Project

Board Game Project

Make: Using stripboard/wiring to assemble a USB powered circuit with different type of LEDs.

Core Theory: Papers and boards, composite materials, smart materials.

Theory: Mechanisms theory including cams, levers, linkages and gears

Make: Sublimation printed work that has been scanned in, embroidered / machine stitching over the top. Piece has a combination of mixed media to portray their identity, which can be attached to a bag / placed within a photo frame.

Materials: Mixed media, polyester fabric, sublimation printing
Artists: Maurizio Anseri, Deborah Klein, Nathaniel Mary Quinn, Picasso, Susie Vickers

Design: Creating a self identity piece reflecting the student's personality, interests and features

Core Theory: New and emerging technologies

YEAR 10

Speaker project

Mechanisms Project

TEXTILES: DAY OF THE DEAD

Design: Isometric projection, CAD development
Advanced soldering: Use of PCB to develop soldering work

Testing / Modelling: Will my product work? What can I do to improve it?

Design: Creating ideas to produce their favourite food as a piece of artwork, inspired by artists' use of colour & styles

Make: Crazy patchwork piece with embroidered & machine stitching over the top. Can be backed with a panel to turn into a pouch / case for phone.

Artists: Matisse, Arcimboldo, Edrica Huws, Carolee Clark, Joel Penkman

Origin of food- field to plate. Function of ingredients. Review and apply Eatwell guide, designing food which fuses culture

Making: Fajitas, Tabbouleh, Curried rice & Pasta primavera

BUILDING HEALTHY FOOD HABITS FOR LIFE

Making : Bread Whirls, Chickpea/potato curry, Pasties, Roux Pasta Bake

What are the Healthy Eating Recommendations? What is a menu plan? Do you know what eating the colours of the rainbow are? Did you know that some types of food are more energy dense than others? What is HPF? Students are shown how to meal plan based on Healthy Choices of Food. In their practical they are introduced to some higher-level skills – Shaped bread, reduction and roux sauces and ruff puff pastry.

Advanced soldering: Use of PCB to develop soldering work

TEXTILES: "FOOD AS ART"

FUSION FOOD

YEAR 9

Design: Designing for a specific user. Detailed circuits, input process and out puts. Switches, microchips, capacitors LED's

Evaluate: At each stage of making, how can you improve your product? Would you change anything?

Make: Focus on high quality finish. Using mitre & tenon saws, sander and chisel for joints. Engraving with laser cutter

Design: Designing for a user and client. What is an isometric projection? Develop design ideas using CAD

Materials: Wood classification. Where does timber come from? What is plywood? What are it's properties?

PHONE STAND

Work in more depth on projects, honing your practical skills, improving your resilience & problem solving whilst developing independence in the workshop.

HAND HELD FAN

Make: Basic soldering, copper tape circuit line-bending, use of card, paper and fabric to customize the product

Materials: Working with recycled fabrics. Impact of textiles on the environment

Make: Joining techniques. Sewing by hand and by sewing machine

Nutrition: Eatwell guide, 5-a-day campaign and the nutritional panels on food packaging

Making: Pasta salad, Carrot cake, Quesadilla, Pizza and Cheese & courgette scones.

FOOD FOR A HEALTHY LUNCHBOX

YEAR 8

Materials: Polymers Classification. What is a polymer? What is a circuit?

STEADY HAND TESTER

Evaluate: Does your product work? How can you fix problems?

Design: Basic 2D drawing techniques. Working with geometric shapes Lay planning

Nutrition: Eatwell guide, 5-a-day campaign and the nutritional panels on food packaging

Making: Pasta salad, Carrot cake, Quesadilla, Pizza and Cheese & courgette scones.

FOOD FOR A HEALTHY LUNCHBOX

YEAR 8

ACRYLIC KEYRING

Introduction to the workshop: Health and Safety

YEAR 7

Evaluate: What makes a good keyring? How can you improve your skills?

Make: Shaping wire Heat setting Cutting to shape Embossing acrylic Abrading to a high-quality finish Drilling

Design: Designing for users Shading & Rendering

Materials: Acrylic – origin, types and material properties

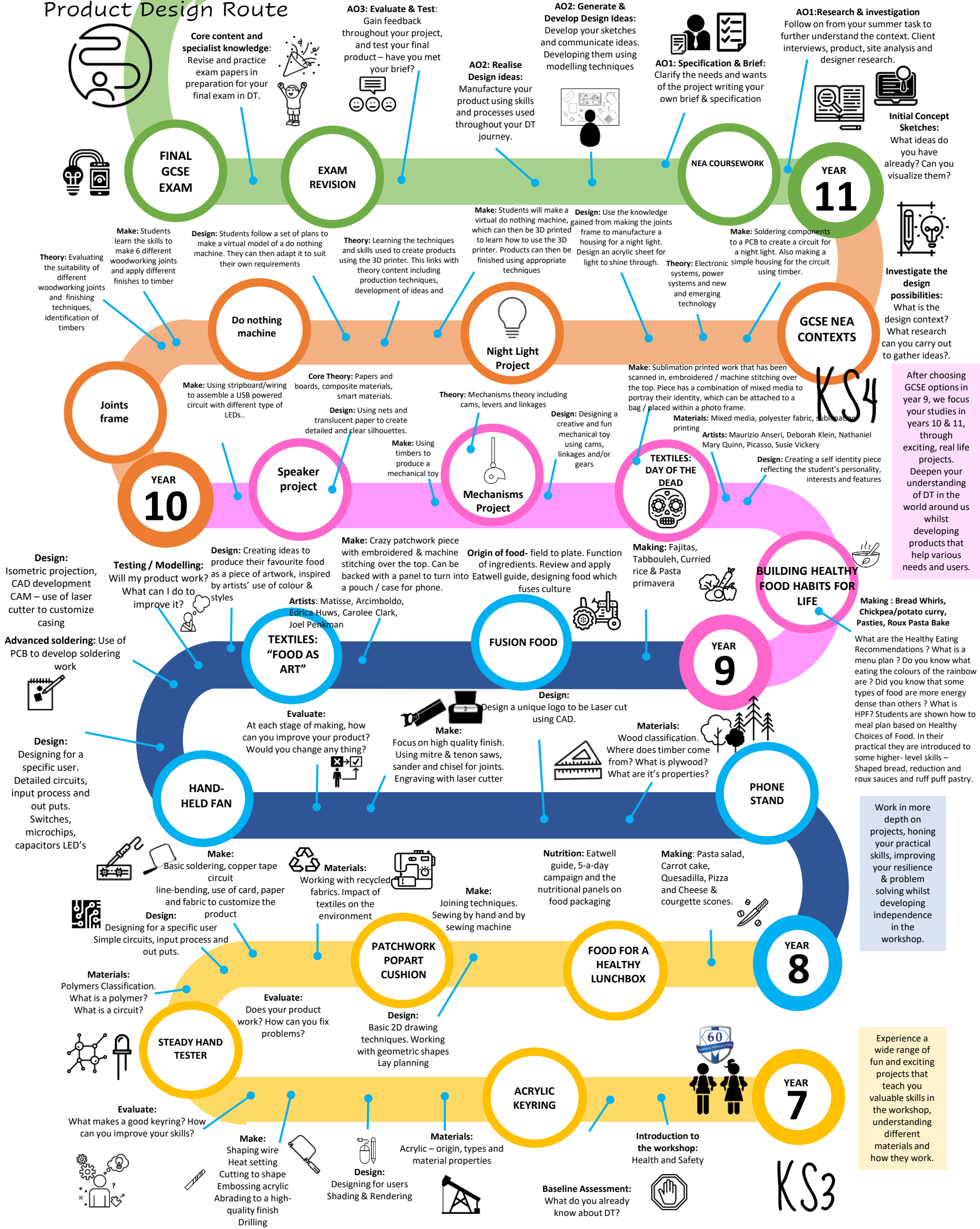
Baseline Assessment: What do you already know about DT?

KS3

Experience a wide range of fun and exciting projects that teach you valuable skills in the workshop, understanding different materials and how they work.

DESIGN TECHNOLOGY

Product Design Route



Core content and specialist knowledge: Revise and practice exam papers in preparation for your final exam in DT.

AO3: Evaluate & Test: Gain feedback throughout your project, and test your final product – have you met your brief?

AO2: Generate & Develop Design Ideas: Develop your sketches and communicate ideas. Developing them using modelling techniques

AO1: Research & investigation Follow on from your summer task to further understand the context. Client interviews, product, site analysis and designer research.

FINAL GCSE EXAM

EXAM REVISION

NEA COURSEWORK

YEAR 11

Initial Concept Sketches: What ideas do you have already? Can you visualize them?



Investigate the design possibilities: What is the design context? What research can you carry out to gather ideas?.

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GCSE NEA CONTEXTS

KS4

Make: Students learn the skills to make 6 different woodworking joints and apply different finishes to timber

Design: Students follow a set of plans to make a virtual model of a do nothing machine. They can then adapt it to suit their own requirements

Theory: Learning the techniques and skills used to create products using the 3D printer. This links with theory content including production techniques, development of ideas and

Make: Students will make a virtual do nothing machine, which can then be 3D printed to learn how to use the 3D printer. Products can then be finished using appropriate techniques

Design: Use the knowledge gained from making the joints frame to manufacture a housing for a night light. Design an acrylic sheet for light to shine through.

Make: Soldering components to a PCB to create a circuit for a night light. Also making a simple housing for the circuit using timber.

Theory: Electronic systems, power systems and new and emerging technology

Do nothing machine

Night Light Project

Joints frame

Make: Using stripboard/wiring to assemble a USB powered circuit with different type of LEDs..

Core Theory: Papers and boards, composite materials, smart materials.

Design: Using nets and translucent paper to create detailed and clear silhouettes.

Theory: Mechanisms theory including cams, levers and linkages

Design: Designing a creative and fun mechanical toy using cams, linkages and/or gears

Make: Sublimation printed work that has been scanned in, embroidered / machine stitching over the top. Piece has a combination of mixed media to portray their identity, which can be attached to a bag / placed within a photo frame.

Materials: Mixed media, polyester fabric, sublimation printing

TEXTILES: DAY OF THE DEAD

Design: Creating a self identity piece reflecting the student's personality, interests and features

YEAR 10

Speaker project

Mechanisms Project

Make: Using timbers to produce a mechanical toy

Making: Fajitas, Tabbouleh, Curried rice & Pasta primavera

BUILDING HEALTHY FOOD HABITS FOR LIFE



Making: Bread Whirls, Chickpea/potato curry, Pasties, Roux Pasta Bake

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Design: Isometric projection, CAD development CAM – use of laser cutter to customize casing

Testing / Modelling: Will my product work? What can I do to improve it?

Design: Creating ideas to produce their favourite food as a piece of artwork, inspired by artists' use of colour & styles

Make: Crazy patchwork piece with embroidered & machine stitching over the top. Can be backed with a panel to turn into a pouch / case for phone.

TEXTILES: "FOOD AS ART"

Artists: Matisse, Arcimboldo, Edrica Huws, Carolee Clark, Joel Penkman

FUSION FOOD

Origin of food- field to plate. Function of ingredients. Review and apply Eatwell guide, designing food which fuses culture

Design: Design a unique logo to be Laser cut using CAD.

Materials: Wood classification. Where does timber come from? What is plywood? What are its properties?

YEAR 9

PHONE STAND

Advanced soldering: Use of PCB to develop soldering work



Design: Designing for a specific user. Detailed circuits, input process and out puts. Switches, microchips, capacitors LED's

HAND-HELD FAN

Evaluate: At each stage of making, how can you improve your product? Would you change anything?

Make: Focus on high quality finish. Using mitre & tenon saws, sander and chisel for joints. Engraving with laser cutter

Nutrition: Eatwell guide, 5-a-day campaign and the nutritional panels on food packaging

Making: Pasta salad, Carrot cake, Quesadilla, Pizza and Cheese & courgette scones.

YEAR 8

FOOD FOR A HEALTHY LUNCHBOX

PATCHWORK POPART CUSHION

Evaluate: Does your product work? How can you fix problems?

Design: Basic 2D drawing techniques. Working with geometric shapes Lay planning

Materials: Polymers Classification. What is a polymer? What is a circuit?

STEADY HAND TESTER

Evaluate: What makes a good keyring? How can you improve your skills?

Make: Shaping wire Heat setting Cutting to shape Embossing acrylic Abrading to a high-quality finish Drilling

Design: Designing for users Shading & Rendering

Materials: Acrylic – origin, types and material properties

ACRYLIC KEYRING

Baseline Assessment: What do you already know about DT?

Introduction to the workshop: Health and Safety

YEAR 7

KS3

Work in more depth on projects, honing your practical skills, improving your resilience & problem solving whilst developing independence in the workshop.

Experience a wide range of fun and exciting projects that teach you valuable skills in the workshop, understanding different materials and how they work.

Textile Design Route

