



Thomas Adams – Design and Technology

Year 7 D&T Practical Curriculum Map

Year
7



Year 7 DT Practical In this area you will make a Trinket box project you will have had an introduction to the workshop, and you will learnt about the H&S requirements and rules of the workshop and the various PPE that is in place to prevent injury. You will design the lid of their trinket box using 5 or 10mm circles.

WEEK 2

- You will learn the importance of marking out accurately to improve the quality of your outcomes (tolerances)
- To develop your sanding skills using coarse and fine glass paper and a sanding block
- To reflect on their progress in the practical lesson using their learning logs

WEEK 1

- To become familiar with the workshop and its risks.
- To understand the design brief for the practical project

WEEK 3

- To learn the art of filing and smoothing edges of work effectively.
- To understand how to safely use the pillar drill.
- To reflect on their progress in the practical lesson using their learning logs

WEEK 4

- You need to understand how to safely use the disk sander to manipulate timbers.
- To reflect on their progress in the practical lesson using their learning logs

WEEK 5

- Understand the importance of finishes and learn how to stain the plywood inserts of your trinket box and varnish the pine lid and base.
- To establish what they need to do next to progress next lesson

WEEK 6

- Learn how to combine materials using adhesives
- To establish what they need to do next to progress next lesson

END

WEEK 8

- To apply their knowledge of the running stitch to their work and attach all parts of their keyring together.
- To apply the technique of applique.
- To understand how to manipulate fabric to create a loop in their keyring.

WEEK 7

- You need to understand why 'textiles' is important and what impact it has on our lives.
- Appreciate how create a template for the felt keying design to make your design and manufacture quicker and more accurate.
- Learn how to cut fabric effectively using fabric scissors

This roadmap will give you a typical overview of objectives and outcomes in this rotation.



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Year 7 Food Practical Curriculum Map



**Year
7**

Year 7 - Food In year 7 food you will learn all the basics you need to know for the next 3 years (maybe7!) You will cook a range of health dishes and learn about food and nutrition. You will follow all health and safety rules.



WEEK 1

- To become familiar with the Kitchen and its risks.
- Collect a recipe card and go through homework.



WEEK 2

Cooking - Couscous Salad

- To build/ gain basic chopping skills.
- 2. To understand to room layout and where things are.
- 3. To understand how to wash up safely.

WEEK 6

Cooking - Jam Tarts

- To learn how to make shortcrust pastry.
- To follow all health and safety rules.

WEEK 5

Cooking Crispy Chicken

- To develop and learn new practical skills by chopping, coating and using an oven.
- To learn how to store, prepare and cook a high risk food safely
- To develop an understanding of side dishes they could serve with the chicken pieces

WEEK 4

Cooking Tuna Balls

- Using the hob or oven safely.
- To follow all health and safety rules
- Learn how to work with fish

WEEK 3

Cooking Scones

- Using the rubbing method and building confidence using the oven safely.
- To follow all health and safety rules

WEEK 7

Theory -Eat Well Guide/ Test

- To understand why we need different nutrients in our body
- To explain what happens if we have too much or too little (discussion)

WEEK 8

Cooking - Soup

- To build on all core cooking skills learnt this term.
- To use the hob safely.

END

This roadmap will give you a typical overview of objectives and outcomes in this rotation.

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Year 7 Core Theory Curriculum Map

Year
7

Year 7 Core Theory

In this area you will gain an understanding of materials and their properties, origins and characteristics; a basic understanding of the design process and the evolution of products over time, as well as a basic understanding of sustainability, its impact on product design and the 6Rs of sustainable living.

To become familiar with some of the most iconic designs known to us.
To understand how a product can become a “design icon”.

WEEK 2

To understand that products have evolved over time.
To develop an awareness of ‘why’ products develop over time.
To analyse the evolution of the bicycle.

WEEK 3

To understand why product design is important.
To develop an awareness of the design process.
To establish what the term ‘iterative design’ and why it is OK to get it wrong!

WEEK 1



To understand what being ‘sustainable’ is.
To develop an awareness of the 6R’s.
To analyse how sustainable a product is using the 6Rs.

WEEK 4

To know that there are 2 types of metal
To understand the differences between the types
To develop an awareness of the types of metal and their uses, stock forms and finishes.

WEEK 8

To know that there are 2 types of polymer.
To understand the differences between the types.
To develop an awareness of the types of polymers and their uses.

WEEK 7

To know that there are 3 types of timber.
To understand the differences between the types.
To develop an awareness of the types of timbers and their uses, stock forms and finishing methods.

To understand the term ‘properties’ means.
To develop an awareness of a range of ‘properties’.
To apply your knowledge of properties a range of materials / products.

WEEK 5

To know that there is a difference between paper and board
To understand how paper and board is made.
To develop an awareness of the types of paper and boards and their uses.

WEEK 9



To know what textiles are
To understand how textiles are made
To develop an awareness of the types of textiles and their uses.

WEEK 10

To understand why ‘textiles’ is important and what impact it has on our lives.
To create a template for the felt keyring design
To cut fabric effectively using fabric scissors

WEEK 11

To apply knowledge learnt over the core practical project to enable them to answer the test questions effectively.
To secure and consolidate key theory of the practical project.
To collate all practical work and hand in alongside design booklets.

WEEK 12

END

This roadmap will give you a typical overview of objectives and outcomes in this rotation.



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Year 8 D&T Push Along Toy Curriculum Map

Year
8

Year 8 – DT In this rotation you will design and make a wooden push along toy you will gain a stronger understanding of a variety of machines in the workshop. You will embed the H&S information that you learnt in year 7 and have a better understanding of the rules of the workshop and the various PPE that is in place to prevent injury. You will design body and decoration of your wooden toy using 15mm pine. You will also develop an awareness of material working properties and the product life cycle throughout the project to aid them in their theory understanding.

WEEK 6

- You will learn how to further manipulate timbers, metals and polymers to create a range of components for your product.
- You will explore both temporary and permanent joining methods.
- You will continue to be reflective and log progress in you practical learning log.

WEEK 5

- You will continue to build upon and further develop your understanding of safe working in the workshops
- You will apply quality control measures such as templates to help you manufacture accurate components to higher tolerances.

WEEK 1

- You learn how to analyse other products on the market and evaluate their strengths and weakness
- You'll learn to identify specific target markets and consider a clients needs and wants

WEEK 2

- You will learn about how to generate a detailed design specification based on your observations and research.
- You will establish a series of tests and evaluation exercises to confirm the success of your final manufactured prototype

WEEK 3

- You will learn how to create a range of designs for your client based on their needs and your specification points.
- You will learn how to effectively communicate your ideas through drawing, annotations and rendering skills
- You will model your ideas to test their effectiveness and make improvements.

WEEK 4

- You will refresh workshop health and safety from year 7
- You will learn how to interpret working drawings to accurately mark out components.
- You will use a range of tools and machinery to manipulate materials.

WEEK 8

- You will learn how to effectively evaluate your outcomes by testing against your specification and gaining client feedback.
 - You will suggest improvements and modifications based on this analysis
- + END OF UNIT TEST

END

WEEK 7

- You will learn how to finish a range of materials to improve their aesthetics and durability
- You will continue to be reflective and log progress in you practical learning log.

This roadmap will give you a typical overview of objectives and outcomes in this rotation.



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Year 8 D&T African Textiles Block Printed Cushion Curriculum Map

Year 8



You will be designing and making a cushion inspired by African Textiles. You will get to try out a range of tie dye patterns. You will learn how to embellish using hand beading, and you will create traditional wooden block printing patterns. Exploring different repeat pattern methods. You will learn how to use and control the sewing machines to construct your own cushion designs.

WEEK 6

- You will complete your tie dye on your final cushion design, which you will go onto add your block printing too.
- You will make as start on your embellishment, and construction techniques.
- You will complete a introduction to the sewing machines and machine driving test!

WEEK 5

- To present and evaluate the tie dye samples you explored, this will help you choose a technique for your final piece.
- Be introduced to embellishment techniques such as buttons and beads and how these can be added to your printed designs.
- You will complete samples showing your embellishments techniques.

WEEK 1

- You will be introduced to the health and safety considerations in the Textiles workshop.
- You will discuss 'What is Textiles' and how it impacts our lives.
- You will analyse examples of traditional African Textiles, and brainstorm ideas based around these.

WEEK 2

- You will be introduced to three different types of repeat pattern, block, half brick, half drop. You will then design your own repeat pattern using a African inspired motif, adding colour.
- Homework task will be set based around a mood board.

WEEK 3

- To explore some block printing sample pieces using fabric paints, wooden blocks and calico fabric, you will have a go at block printing using a range of wooden blocks.
- You will gain knowledge in how to get a good quality print and the materials and equipment needed to use block printing.

WEEK 4

- You will use evaluation skills to assess the samples made, you will then use your mood board to help begin the design process.
- You will work on a peer task to broaden and challenge a design idea further, this will lead to a final design.
- You will complete tie dye samples of of marble, dip dye, and circle.

WEEK 8

- You will learn how to effectively evaluate your final outcome and any improvements that will be made.
 - You will peer review, and completing manufacturing guide.
- + END OF UNIT TEST**

END

WEEK 7

- You will be completing the embellishments on your final cushion and finalising the construction through the sewing machine running stitch.

This roadmap will give you a typical overview of objectives and outcomes in this rotation.



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Year 8 D&T Food and Nutrition Curriculum Map

Year
8

Year 8 In Food and Nutrition you are building on your knowledge from year 7 around food preparation and healthy eating. During your time in Food you will learn about where food comes from, how to prepare and cook a wide variety of foods, ingredients and their uses and nutrition. At the end of the rotation you will be planning and cooking a dish independently for an assessment piece of work

WEEK 6

- Theory: You will understand what seasonality is and why its important to eat seasonal foods
- Theory: In this lesson you will learn how to write a time plan. You will then plan your independent dish using this skill ready for assessment (*assessed piece of work*)

WEEK 5

- Theory: You will understand what a raising agent is and how it is used in different food products
- Practical : Pizza, How to make a basic bread dough and how to grate cheese and vegetable preparation



WEEK 4

- Theory: In this lesson you will understand where food comes from and what's its impact on the environment
- Practical: Fruit Crumble: Demonstrate 'rubbing in' skill and fruit preparation



WEEK 1

- Theory: You will learn how to stay safe in the kitchen and how to keep food safe to eat
- Practical: Couscous salad: Skills vegetable preparation and rehydrating

WEEK 2

- Theory: Nutrition: you will learn what Macro and Micro nutrient are and why we need them in our diet to keep healthy
- Practical: Jam Tarts – how to make a shortcrust pastry and safe use of the oven



WEEK 3

Theory : You will learn more on food hygiene including how to store, prepare and cook food to make sure food is safe to eat

Practical. Stuffed chicken and wedges. How to prepare meat safely and ensure its cooked to remove chances of food poisoning

WEEK 7

Theory : In this lesson you will learn about protein in the diet, why its needed, healthy sources and where it comes from

Practical: Spaghetti Bolognese. How to ensure minced meats are cooked in a safe way to reduce food poisoning



WEEK 8

Theory : In this lesson you will learn why some people need or choose to follow a different types of diets

Practical: Independent dish assessment day (*assessed piece of work*)

END

This roadmap will give you a typical overview of objectives and outcomes in this rotation.

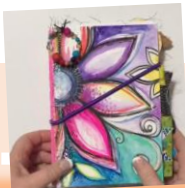


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Year 9 D&T Textiles T-Shirt Customising and Design Journal Curriculum Map

WEEK 2

Year
9



In this Textiles rotation you will be designing and customising your own T-Shirt designs. You will be exploring a range of technical processes looking at embellishment such as beading, hand stitch and digital stitch. You will be building your own personal design journals presenting your techniques such as printing, tie dye, brusho inks, image transfer, and machine stitch. You will create a final outcome and create a mini fashion show. This Textile rotation, you will be designing and customising your own.

WEEKS 9-10

- You will learn how to design and use fashion templates to create fashion illustrations combining your surface pattern techniques in your design journals.
- You will be introduced to fabric manipulations such as ruffles, pleats and Suffolk pouches.

WEEKS 5-8

- You will learn how to use image transfer and how you can apply these using the Heat press
- You will be trained in health and safety on using the press and transfers.
- You will complete embellishment techniques such as beading, buttons, studs and applique and review each process.

WEEK 1

- You will learn how about your design brief for the rotation based around Decades. You will brain storm ideas on different decades.
- You will begin by making surface pattern techniques in your design journals. Focus on colour mixing and brusho inks.

WEEK 3

- You will analyse techniques such as hand stitch v's Digital stitch and what the advantages and disadvantages to the processes –you will complete a sample for both types of stitch.

WEEK 4

- You will be exploring tie dye methods on samples looking at marble, dip dye and circle techniques.
- You will complete an evaluation and review of the techniques and any improvements that could be made.

END

WEEKS 11-12

- You will tie dye your T-shirt for your final customised piece.
- You will be applying technical skills you have learnt and documented to decorate and embellish the shirt, you will combine a range of techniques.

WEEKS 13-15

- You will finalise your final outcome with your embellishment ready to present a mini fashion show of all final pieces.
- You will evaluate the final outcomes and complete design review in your booklets.
- + END OF UNIT TEST

This roadmap will give you a typical overview of objectives and outcomes in this rotation.



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Year 9 D&T Amplifier Curriculum Map



Year
9

DT (Practical) In this topic you will design and create a portable amplifier. You will learn about the material and processes involved but you will also learn about important design decisions to assist you in creating a successful design criteria. You will develop your skills in responding to a context and realising your design to form a functioning high quality prototype.

WEEKS 9-10

- You will create and manufacture the housing for your amplifier in the workshop.
- You will build on a range of workshop skills, health and safety and quality control.
- You will start to learn about electronic systems and inputs, processes and outputs

WEEKS 5-8

- You will learn a Computer Aided Design (CAD) package to create the front of the amplifier from acrylic cut on the laser cutter.
- You'll learn and experience how to operate the laser cutter safely

WEEKS 11-12

- You will manufacture a circuit and learn how to solder components, read circuit diagrams and complete these tasks safely in the workshop.
- You will complete practical with appropriate finishes and complete a final assembly.

WEEK 1

- You learn how to analyse a context to create design opportunities
- You'll build on specific research skills in D&T including client profiling, mood boards and

WEEK 4

- You will develop your skills in presentation and communication of ideas by looking at a range of drawing methods.
- You will produce a range of ideas for the amplifier to present to you client.

WEEKS 13-15

- You will learn how to effectively evaluate your outcomes by testing against your specification and gaining client feedback.
- You will suggest improvements and modifications based on this analysis
- + END OF UNIT TEST

WEEK 2

- You will learn about technology push, market pull and how these affect the evolution of products.
- You will learn how to social, ethical and cultural issues affect design outcomes
- You will improve your understanding of client needs and wants through a questionnaire.

WEEK 3

- You will analyse your research and compile a specification to design and develop your amplifier prototype



END

This roadmap will give you a typical overview of objectives and outcomes in this rotation.



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Year 9 D&T Food and Nutrition Curriculum Map

WEEK 3

**Year
9**

In this food and nutrition rotation you will learn the essential knowledge of how to choose a healthy diet and about diets others follow. You will look at commodities, how they are made and their uses in food. You will build practical cooking skills concluded in an assessment where you choose your own dish to make demonstrating your skills

WEEK 1

To understand how to remain safe in the kitchen, how to prevent food poisoning

WEEK 2

To know what a micronutrient and a macronutrient and be able to give a function of both a vitamin and a mineral
Preparing a Pasta salad incorporating vegetables using knife skills, boiling and simmering

To understand the benefits of incorporate more fruit and vegetables into the diet and how to produce a basic cake in preparation for making muffins
To prepare cut and season meat and vegetable to make Fajitas



WEEK 7



You will understand the value of fats in the diet, which fats are healthy and the sources and which fats contribute to an unhealthy lifestyle
This week you will make Chilli Con Carnie demonstrating cooking mince meat and simmering to thicken a sauce

WEEK 6

You will learn why energy linked to nutrition is important and the danger of free sugars in foods
Cook a Tuna pasta bake using make a béchamel sauce base

WEEK 5

Understand how cheese is made and how its flavor is developed, also how to use it in food products
You will demonstrate you can make a Lemon Cheesecake using cheese and a setting agent

WEEK 4



To have a wider knowledge of what can influence what we choose to eat and what is available to us in our diets
Making Healthy Muffins to add a portion of fruit or vegetables into the diet

WEEK 8

This week you will learn about different diet that people follow for ethical and medical reasons and why people rule out certain foods
This week you will be looking at other cultures ingredients by making Thai Curry

WEEKS 9 -11

You will learn each method of cake making, the nutrition in each ingredient, types of icing for cakes and how to handle them. You will create a time plan that you can follow independently to create a cake of your own and then bake your own cake as part of Bake Off



**WEEKS 11-15
assessment weeks**

Pupils to reflect on their knowledge gain over the Food Rotation and independent look for a dish that meets the Eatwell guide and reflects healthy eating habits. You will be planning and cooking a dish for assessment in an hour independently using your practical skills and food hygiene knowledge. You will then complete an evaluation of the dish
+ revision and end of unit test

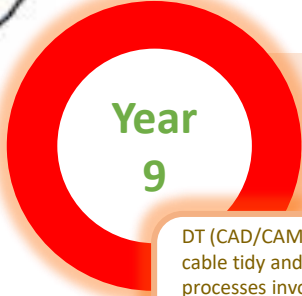
END

This roadmap will give you a typical overview of objectives and outcomes in this rotation.



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Year 9 D&T Cable Tidy Curriculum Map

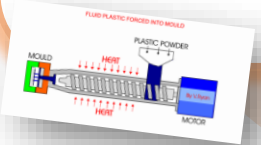


Year
9

DT (CAD/CAM & Graphics) In this topic you will design and create a cable tidy and packaging. You will learn about the materials and processes involved but you will also learn about iterative design and creating an idea to meet a specification. You will develop your skills in responding to a context and realising your design to form a functioning high quality packaged prototype using CAD / CAM.

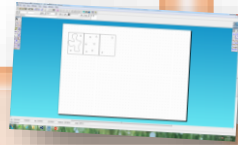
WEEKS 8-9

- You will learn about the 'Injection Moulding process' comparing it to industry and in the workshop.
- You will apply this knowledge to producing your own injection moulded piece.
- You will file and smooth the edges to create a high quality finish.



WEEKS 6-7

- Workshop – you will begin making the MDF version of your cable tidy. Using your CAD cut piece for a template.
- You will also develop your hand tool skills of shaping and finishing timber. Coping Saw, Disk Sander, Files and Glass Paper.



WEEK 1

- You learn how to analyse a context to create design opportunities
- You'll build on specific research skills in D&T including client profiling, mood boards and product analysis.

WEEK 2

- You will focus this week on using your research to develop creative ideas to fit your brief.
- You will practice 'iterative design' and gain feedback from other users to help you develop your ideas further.



WEEK 3-4

- You will begin to draw up your ideas on CAD software, 2d design developing your basic skills on the computer software.

WEEK 5

- You will learn how to cut your template ideas out on the laser cutter.
- You will develop a good understanding of the workings of the laser cutter and its capabilities.

WEEKS 11-13

- Develop your Vacuum Former knowledge and understanding.
- Create the packaging for your product.
- Laminate the art work to your packaging.
- Vacuum form your product to suit your packaging.
- Quality finish your product and evaluate its successes / areas for development.



END

This roadmap will give you a typical overview of objectives and outcomes in this rotation.



WEEKS 10-11

- You will develop your understanding of the 'purpose of packaging'.
- Begin applying this knowledge to create your own packaging for your set of cable tidies.
- Create your packaging by adding colour, shapes and text to your CAD skills on 2 design.