



# How we teach D&T at Lozells School

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## Our vision:

*To teach and nurture the children of our community is a privilege.  
Our families and children are ambitious for themselves and supportive of one another in a way that simply defines 'community'.*

*Our vision is for all our children to know that they are valued, can make a difference and can achieve great things through hard work and perseverance.*

## Our ethos is:

*Everyone is entitled to be the best they can be.  
We will enable children to learn, challenge them to think hard and guide their growth as young people.*

*They are their own future, their family's future, our future.  
Our children have differences, character and voices and we encourage this!*

# 1. SUBJECT VISION STATEMENT

## 1. OUR VISION FOR D&T

Within the last hundred years, technology has advanced more than in any other period of history. Our children are living in a time where individual entrepreneurship through online business opportunities is growing at a significant rate. At Lozells, we feel it is important that our D&T curriculum prepares children to become – confident designers, creative designers and designers of the future. To this end, we feel that our curriculum must enable children to develop skills in problem-solving, creativity and evaluation. We are ambitious for our children to become expert designers and believe passionately that helping children to become designers of the future could help us to safeguard our planet or significantly improve life-chances for communities facing challenging economic, medical or environmental conditions across the world for example. Our D&T curriculum has a key strand – Food and Nutrition. It is important that our children are equipped with the necessary knowledge and skills to lead healthy and well lives both as children and far into the future as adults. Due regard for Health and Safety is an important pre-requisite to using tools and equipment to create products in D & T and so forms an important part of our curriculum and assessment.

## 2. BUILDING ON THE SCHOOL CURRICULUM DRIVERS

### Healthy Advocates

Our children understand what it means to be a healthy, fit and happy both physically and mentally and will value this; taking positive action for themselves and supporting their peers with this.

### Respectful Citizens

Our children have respect for themselves and the voice, thoughts, feelings and beliefs of others; respecting the diversity our wonderful world has. Our children will gain an understanding of their emotions and have skills to resolve disagreements. Our children will be responsible citizens and know how to speak up against prejudice or injustice.

### Confident Communicators

Our children communicate their thoughts, ideas and opinions in a clear and confident manner through speech, writing and the safe use of online platforms. Our children are bold enough to say what is fair, make mistakes and unravel new learning through discussion with their peers. Our children understand how to listen and facilitate a respectful space for others to communicate also.

### Aspirational Learners

Our children have self-belief and high expectations of themselves; setting goals and working hard to achieve them both in school and at home. Our children know that mistakes = learning and understand that learning should be challenging. Our children are passionate about life-long learning and understand that great achievement starts with aiming high and believing we will.

### Knowledgeable Scholars

Our children have gained and understood a range of important foundational knowledge across all subjects which they will be able to build future learning upon. Our children strive to learn more, know more and put their knowledge into practice. Our children are curious about sources of knowledge and understand bias, perspective and influence. Our children have explored how knowledge has changed the world and how great inventions have come from a place of expertise.

### Successful Achievers

Our children understand the learning process, reflect on their own learning and are self-motivated to learn more and work to remember more. Our children work hard to be the best that they can be, have bold ambitions and overcome challenges through perseverance and determination. Our children take pride in their personal accomplishments and celebrate the achievements of their peers, providing motivation and encouragement.

Within the Food and Nutrition elements of the D&T curriculum there is a high priority placed on teaching children about healthy foods and nutrition. All children are given a wide variety of opportunities to create a range of healthy food items and dishes which they are able to taste and enjoy.

Throughout the D&T curriculum the children are taught how to use a wide range of tools and equipment safely.

Children explore a variety of designers from a range of backgrounds and cultures. Children learn that people of any race, gender and ethnicity can be successful designers and have influence and impact on the world of innovation and design.

Children work respectfully to critique and evaluate their own designs and products and those of their peers.

The D&T curriculum is built upon the understanding that language underpins thought and that thought precedes understanding. There is a high focus on children using and understanding ambitious vocabulary with planned opportunities for children to 'say' and articulate sentences using the new language out loud. Quizzes and assessments provide recall and reasoning opportunities.

Our Whole-school enterprise events enable children to present and sell their designs to our school community alongside their teachers.

The D&T curriculum is ambitious for all learners. Children are taught a comprehensive progressive set of techniques. The curriculum provides challenge and requires the children to think hard. Opportunities for practice are discreetly planned into the structure of the curriculum so that children can attempt the new skills before they apply them within their product creation. The children

The D&T curriculum is built upon a firm foundation of ambitious knowledge. Children gain a deep and progressive knowledge base of the core disciplines of materials, textiles, structures, mechanics, electrical systems and food and nutrition. The curriculum more than prepares our children for the learning they will encounter at secondary school.

The D&T curriculum enables children to experience being successful designers, engineers, artists, bakers and chefs. Our children meet with success both during the attempt, planning and making process and once the blocks are completed and their designed products are finalised. Our whole-school enterprise events, enable children to design, make and sell their own product fitting a design brief in order to make as much profit as they can. Our children celebrate the success of their peers and other classes across school and families actively purchase the children's products.

## **NATIONAL CURRICULUM PURPOSE OF STUDY:**

Design and technology is an inspiring, rigorous and practical subject. Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology, they develop a critical understanding of its impact on daily life and the wider world. High-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation.

## **NATIONAL CURRICULUM AIMS:**

The national curriculum for design and technology aims to ensure that all pupils:

- develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world
- build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users
- critique, evaluate and test their ideas and products and the work of others
- understand and apply the principles of nutrition and learn how to cook.

## **ATTAINMENT TARGETS:**

By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study. Schools are not required by law to teach the example content in [square brackets].

## **KS1 NC SUBJECT CONTENT:**

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts [for example, the home and school, gardens and playgrounds, the local community, industry and the wider environment].

## KS1 NC SUBJECT CONTENT:

When designing and making, pupils should be taught to:

<b>Design</b> <ul style="list-style-type: none"><li>➤ design purposeful, functional, appealing products for themselves and other users based on design criteria</li><li>➤ generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</li></ul>	<b>Make</b> <ul style="list-style-type: none"><li>➤ select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]</li><li>➤ select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</li></ul>
<b>Evaluate</b> <ul style="list-style-type: none"><li>➤ explore and evaluate a range of existing products</li><li>➤ evaluate their ideas and products against design criteria</li></ul>	<b>Technical knowledge</b> <ul style="list-style-type: none"><li>➤ build structures, exploring how they can be made stronger, stiffer and more stable</li><li>➤ explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.</li></ul>

## KS2 NC SUBJECT CONTENT:

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts [for example, the home, school, leisure, culture, enterprise, industry and the wider environment].

When designing and making, pupils should be taught to:

<b>Design</b> <ul style="list-style-type: none"><li>➤ use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups</li><li>➤ generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design</li></ul>	<b>Make</b> <ul style="list-style-type: none"><li>➤ select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately</li><li>➤ select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities</li></ul>
<b>Evaluate</b> <ul style="list-style-type: none"><li>➤ investigate and analyse a range of existing products</li><li>➤ evaluate their ideas and products against their own design criteria and consider the views of others to improve their work</li><li>➤ understand how key events and individuals in design and technology have helped shape the world</li></ul>	<b>Technical knowledge</b> <ul style="list-style-type: none"><li>➤ apply their understanding of how to strengthen, stiffen and reinforce more complex structures</li><li>➤ understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]</li><li>➤ understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]</li><li>➤ apply their understanding of computing to program, monitor and control their products.</li></ul>



# 4. INTENDED PROGRESSION THROUGH THE CURRICULUM

## EYFS

It is important for leaders and teachers to know the vocabulary, knowledge and skills children have acquired and mastered within the EYFS curriculum

### **Expressive Arts and Design**

ELG: Creating with Materials

Children at the expected level of development will:

- safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function;
- share their creations, explaining the processes they have used;
- make use of props and materials when role-playing characters in narratives and stories.

### **Physical Development Programme of Study**

#### **Fine Motor Skills ELG**

- Children at the expected level of development will:
  - Hold a pencil effectively in preparation for fluent writing – using the tripod grip in almost all cases;
  - Use a range of small tools, including

### **Communication and Language Programme of Study**

#### **Speaking ELG**

Children at the expected level of development will:

- Participate in small group, class and one-to-one discussions, offering their own ideas, using recently introduced vocabulary;
- Offer explanations for why things might happen, making use of recently introduced vocabulary from stories, non-fiction, rhymes and poems when appropriate;
- Express their ideas and feelings about their experiences using full sentences, including use of past, present and future tenses and making use of conjunctions, with modelling and support from their teacher.

#### **Understanding of the World Programme of Study**

#### **The Natural World ELG**

Children at the expected level of development will:

- Explore the natural world around them, making observations and drawing pictures of animals and plants;
- Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class;

Further progress in D&T knowledge and skills throughout Key Stage 1 and Key Stage 2, fundamentally builds upon these key areas of learning within our EYFS curriculum.

The CUSP blocks cover the following content in summary:






































CUSP Design & Technology Long term sequence	Block A	Block B	Block C	Block D	Block E	Block F
Year 1	Mechanisms	Structures	Food and Nutrition	Understanding Materials	Textiles	Food and Nutrition
Year 2	Textiles	Food and Nutrition	Mechanisms	Understanding Materials	Food and Nutrition	Structures
Year 3	Textiles	Food and Nutrition	Mechanisms	Food and Nutrition	Systems	Structures
Year 4	Food and Nutrition	Mechanisms	Textiles	Structures	Electrical Systems	Food and Nutrition
Year 5	Food and Nutrition	Systems	Textiles	Mechanisms	Structures	Food and Nutrition
Year 6	Food and Nutrition	Mechanisms	Food and Nutrition	Structures	Electrical Systems	Textiles

In addition to the core knowledge required to be successful within each discipline, the CUSP curriculum outlines key aspects of development in the Working as a Designer section. Each module will focus on promoting different aspects of these competencies. This will support teachers in understanding pupils' progress as designers more broadly, as well as how successfully they are acquiring the taught knowledge and skills.

Working as a Designer			
Design	Make	Evaluate	Apply
The art or process of deciding how something will look or work.	Create something by combining materials or putting parts together.	Form an opinion of the value or quality of something after careful thought.	Use something or make something work in a particular situation.



## PROGRESSION THROUGH CORE DISCIPLINES AND KEY CONCEPTS

						
Year	Block A	Block B	Block C	Block D	Block E	Block F
1	<b>Core discipline:</b> Mechanisms <b>Key Concept:</b> Sliders and levers 	<b>Core discipline:</b> Structures <b>Key Concept:</b> Freestanding structures 	<b>Core discipline:</b> Food and Nutrition <b>Key Concept:</b> 	<b>Core discipline:</b> Understanding Materials <b>Key Concept:</b> Selecting materials <b>CUSP link:</b> Materials 	<b>Core discipline:</b> Textiles <b>Key Concept:</b> Joining techniques <b>CUSP link:</b> Hot and cold places 	<b>Core discipline:</b> Food and Nutrition <b>Key Concept:</b> 
2	<b>Core discipline:</b> Textiles <b>Key Concept:</b> Exploring shape using a template 	<b>Core discipline:</b> Food and Nutrition <b>Key Concept:</b>  <b>CUSP link:</b> Animals, including humans (Keeping healthy)	<b>Core discipline:</b> Mechanisms <b>Key Concept:</b> Axles and wheels 	<b>Core discipline:</b> Understanding Materials <b>Key Concept:</b> Manipulating materials <b>CUSP link:</b> Use of everyday materials 	<b>Core discipline:</b> Food and Nutrition <b>Key Concept:</b> 	<b>Core discipline:</b> Structures <b>Key Concept:</b> Developing strength in structures 
3	<b>Core discipline:</b> Textiles <b>Key Concept:</b> Stiffening and strengthening fabric 	<b>Core discipline:</b> Food and Nutrition <b>Key Concept:</b>  <b>CUSP link:</b> Animals, including humans	<b>Core discipline:</b> Mechanisms <b>Key Concept:</b> Levers and linkages  <b>CUSP link:</b> Forces and magnets	<b>Core discipline:</b> Food and Nutrition <b>Key Concept:</b> 	<b>Core discipline:</b> Systems <b>Key Concept:</b> How things are powered 	<b>Core discipline:</b> Structures <b>Key Concept:</b> Spanning gaps 
4	<b>Core discipline:</b> Food and Nutrition <b>Key Concept:</b> 	<b>Core discipline:</b> Mechanisms <b>Key Concept:</b> Hinges 	<b>Core discipline:</b> Textiles <b>Key Concept:</b> Fixings and fastenings 	<b>Core discipline:</b> Structures <b>Key Concept:</b> Designing structures using a frame to make them stronger and sturdier 	<b>Core discipline:</b> Electrical Systems <b>Key Concept:</b> Switches and circuits revisited <b>CUSP link:</b> Electricity 	<b>Core discipline:</b> Food and Nutrition <b>Key Concept:</b>  <b>CUSP link:</b> Animals, including humans (Digestion)
5	<b>Core discipline:</b> Food and Nutrition <b>Key Concept:</b> 	<b>Core discipline:</b> Systems <b>Key Concept:</b> Greener power 	<b>Core discipline:</b> Textiles <b>Key Concept:</b> Durability of fabric 	<b>Core discipline:</b> Mechanisms <b>Key Concept:</b> Pulleys and gears <b>CUSP link:</b> Forces 	<b>Core discipline:</b> Structures <b>Key Concept:</b> Developing structures that are fit for purpose and design 	<b>Core discipline:</b> Food and Nutrition <b>Key Concept:</b>  <b>CUSP link:</b> World countries
6	<b>Core discipline:</b> Food and Nutrition <b>Key Concept:</b> 	<b>Core discipline:</b> Mechanisms <b>Key Concept:</b> Pulleys and gears 	<b>Core discipline:</b> Food and Nutrition <b>Key Concept:</b> 	<b>Core discipline:</b> Structures <b>Key Concept:</b> Designing structures revisited – combining skills and knowledge 	<b>Core discipline:</b> Electrical Systems <b>Key Concept:</b> Complex switches and circuits <b>CUSP link:</b> Electricity 	<b>Core discipline:</b> Textiles <b>Key Concept:</b> Sustainable materials 

## Example progression of knowledge, skills and vocabulary in Food and Nutrition

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>Core Knowledge</b>	<b>Senses</b> <b>Vitamins</b> <b>Sensory</b> Pupils will learn that eating is a sensory experience. They will learn about the nutritional value of vegetables and why colourful food can be better for you.	<b>free-range</b> <b>processed</b> <b>coagulate</b> In this unit, pupils will consider what being healthy means. They will learn that eating a variety of vegetables provides the body with the nutrients it needs.	<b>preserve</b> <b>balance</b> <b>seasonal</b> In this block, pupils will consider what a balanced diet is.	<b>ingredients</b> <b>processed</b> <b>bread</b> In this unit, pupils will explore the difference between freshly made food and mass-produced food.	<b>mezze</b> <b>flatbread</b> <b>smørrebrød</b> <b>variety</b> <b>presentation</b> <b>culture</b> In this block, pupils will look to Middle Eastern and Danish foods for inspiration and consider what they can learn from the diets of different cultures.	<b>culture</b> <b>street food</b> In this block, pupils will study and make street foods from different cultures. The aim of these sessions is to encourage pupils to think about their own diet and snacks and how their nutritional value could be improved.
<b>Technical Vocabulary</b>	ribboning caramelize marinade	wholemeal protein vitamin	seasoning stew pressure	gluten knead (verb) ferment (verb)	unleavened knead fibre	fry nutrient prove
<b>Make</b>	They will use a range of culinary techniques to create and modify dishes that appeal to the senses.	They will make products that use a range of vegetables and minimally processed foods.	They will make three products that are often bought pre-made or highly processed.	In this unit, pupils will freshly make food that can be described as mass-produced. Can follow a series of steps in a process to make bread.	They will learn how to make flatbreads and use a range of techniques to make delicious, appetising food.	Make a burrito. Make and roll bread dough. Make a savoury pastry. Can cook food on a hob safely and with control. Can follow a modelled process.
<b>Techniques</b>	Can use the techniques of grating and ribboning	Can use the claw, bridge and ribboning techniques with increasing control.	Season in moderation.	Knead, roll and stretch dough. Grate and chop	Can use a pestle and mortar safely and effectively.	Can use a range of knife skills and techniques

	<p>safely and with control.</p> <p>Can use a knife safely and accurately with control.</p>	<p>Can use a template to cut a specified shape accurately.</p>	<p>Can use the claw, bridge and ribboning techniques with increasing control.</p>	<p>vegetables safely.</p>	<p>Can apply knife skills learnt in previous lessons</p> <p>Can use a range of techniques accurately and confidently to prepare a range of vegetables.</p>	<p>safely and with increasing accuracy.</p> <p>Can apply a simple kneading technique.</p> <p>Can use utensils effectively to achieve a desired effect (such as rolling dough to a required thickness).</p> <p>Can handle and fold pastry accurately and with dexterity.</p>
<b>Design</b>	<p>Can produce an accurate record of the processes involved.</p>	<p>Can experiment with a range of flavours to develop a spice mix.</p> <p>Can choose ingredients carefully to create a colourful multi-layered salad.</p>	<p>Can show creativity in their exploration of ingredients and flavour combinations</p> <p>Can apply their knowledge of sweet, salty, spicy and sour flavours.</p>	<p>Can explain the purpose of adding sugar to fresh soup and why a potato is needed</p> <p>Can explain how to adjust the taste or texture of the fresh soup.</p>	<p>Can show precision and creativity in their arrangement of ingredients.</p> <p>Can select and arrange colours and textures in a visually attractive way.</p>	<p>Can explain their preferences in terms of flavours and give reasons for their choices</p> <p>Can suggest alternative fillings.</p>
<b>Dishes</b>	<p>Rainbow wraps</p> <p>Crudités</p> <p>Vegetable kebabs</p>	<p>Jam jar salad</p> <p>Tortilla quiche</p> <p>Pitta crisps</p>	<p>Fruity yoghurt</p> <p>DIY popcorn</p> <p>Homemade chips</p>	<p>Pizza</p> <p>mini-bread rolls</p> <p>Soup</p>	<p>Flatbread and garlic butter</p> <p>Smørrebrød</p> <p>Mezze bowl</p>	<p>Burrito Pitta</p> <p>bread and hummus</p> <p>Samosas</p>
<b>Evaluate</b>	<p>Can experiment with a range of flavours to develop a spice mix.</p> <p>Can record a simple process and make suggestions about how flavours could be adjusted.</p>	<p>Can state preferences with reasons and suggest ways their dish could be improved.</p> <p>Can suggest adaptations that could be made</p>	<p>Can suggest ways in which flavours can be adapted</p> <p>Can select and use seasoning to enhance flavour and can explain reasons for choices.</p>	<p>Can describe the taste and textures of their bread and identify things they would do differently next time.</p>	<p>Can suggest ways in which they might adapt a recipe and adjust flavours</p> <p>Can explain the choices they have made, evaluate their results and suggest improvements.</p>	<p>Can use appropriate vocabulary to explain techniques, describe flavours and textures and make evaluative comments.</p>

# 5. IMPLEMENTATION THROUGH CUSP – EVIDENCE-BASED PRACTICE

## Overview

At Lozells, children are taught using the CUSP D&T approach. Within this, the children have 6 blocks of D&T lessons across the year.

Each 'block' or 'unit' enables the children to develop their knowledge, understanding and practical skills in a key discipline of D&T – these include: Mechanisms, Structures, Food and Nutrition, Understanding Materials and Textiles. Children have two blocks of Food and Nutrition each year – emphasising the importance of this health and well-being life skill.

The CUSP D&T curriculum is planned and sequenced to develop children's skills progressively from Key Stage 1 to Key Stage 2. Vertical progression in each discipline has been deliberately woven into the fabric of the curriculum so that pupils revisit key disciplines throughout their Primary journey at increasing degrees of challenge and complexity.

## THIS IS HOW WE TEACH D&T

Each block of CUSP D&T is built around a core discipline and a core concept and is structured across three lessons -

Lesson 1	Lesson 2	Lesson 3
Identification of the problem	Explicit teaching of skills	Application of skills
Exploring materials	relating to the brief	Evaluation and adaptation

Each unit sets out clearly what children will know and be able to do by the end.

Each block is built around a design question – e.g. **Does food affect how you feel? How can you repurpose an item of clothing?**

Each block is taught within one half term. Teachers can decide whether it would be more effectively taught across a number of weeks, or (particularly in the case of Food and Nutrition) the block lends itself to being taught more coherently in its entirety across an afternoon for example.

Teachers are provided with information and a video about:

- **Prior Learning:** Details of the knowledge and skills pupils will already have acquired are provided as the block builds on this prior learning
- **Design or Technology History:** Background information is provided about the specific designers studied in the block.
- **Links to Literature:** Links that are made in the lesson sequences to works of literature are listed here. Specific books and illustrators are recommended and used as a stimulus.
- **Materials:** Materials and resources that teachers will need to deliver the lessons are listed.
- **Technical Vocabulary:** The technical vocabulary that pupils will be taught and encouraged to use when discussing their own and others' work is listed here.
- **Health and Safety:** Key health and safety considerations needed for the block.

#### Health and Safety:

This block requires pupils to use: peelers, knives, ovens and hobs. Teachers should ensure that they follow their own school's risk assessments and policies for using the necessary materials and equipment. Pupils should be taught about how to use materials and equipment safely and responsibly as part of these lessons.

#### Food Hygiene:

Please ensure all foods purchased are correctly stored and at the appropriate temperature. All food made should be cooled before being refrigerated. All food should be taken home and consumed within three days. All the recipes are suitable to be eaten hot or cold. Please refer to your school's allergy register before starting this block.

#### Example block structure and outcomes:

NB.

Teachers are able to develop the lessons and adapt lessons to meet the needs of their class

### Year 1 Design and Technology: Food and Nutrition – Block C How does food affect your senses?

- This block is set in the context of the CUSP Science unit 'Animals, including humans'.
- The outline and structure of the block is as follows:

Lesson 1	Lesson 2	Lesson 3	At the end of this block, pupils will ...	
Exploring sensory qualities of food	Exploring sensory qualities of food	Exploring sensory qualities of food	<b>Know:</b>	<b>Be able to:</b>
Experimenting with new flavours and textures	Explicit teaching of culinary skills and techniques	Applying skills	Why colourful food can be healthier	Peel, chop and grate a selection of vegetables
Explicit teaching of culinary skills and techniques	Evaluating outcomes	Evaluating outcomes	How different foods can affect their senses	Modify food to suit their food senses



Rainbow wraps  
Crudités  
Vegetable kebabs

Pupils will learn that eating is a sensory experience. They will learn about the nutritional value of vegetables and why colourful food can be better for you. They will use a range of culinary techniques to create and modify dishes that appeal to the senses.

## Year 1: Food and Nutrition How does food affect your senses?



### Core content:

Learn that eating is a sensory experience.  
Learn about nutrition and why colourful food can be better for you.  
Use a range of techniques to create and modify dishes that appeal to our senses.

### Technical vocabulary:

**Senses** – what the body uses to explore and interact with the world around us: sight, smell, taste, hearing and touch.



**Vitamins** – natural substances in food that are necessary for the growth and good health of the body.



**Sensory** – something that relates to the physical senses of touch, smell, taste, hearing and sight.



**Caramellise** – to cook a food that contains sugar so that the food becomes sweet and often brown.



**Marinate (verb)** – to soak food in a seasoned liquid before cooking to change its flavour and / or texture.



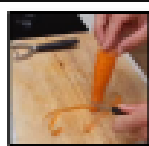
**Ribboning** – to slice food such as vegetables into long, thin strips.



### Techniques



grating



ribboning



marinating

The children are given a **knowledge note** at the beginning of each unit, which displays the objectives and skills as well as the new vocabulary and artist information for the unit.

Children refer to these throughout the unit to support their learning and recall of the new vocabulary.

The children document their art learning in **Design Portfolios** in which they record, explore, practise and refine their design and evaluation skills.

### Y1 Food and Nutrition – Block C How does food affect your senses?

**Food and Nutrition**

How does food affect your senses?

Challenge pupils to identify the senses

Pose questions to pupils:  
Which foods have a spicy, sour or sweet flavour?

Identify foods that contain vitamins  
Explain how vitamins contribute to good health

Encourage pupils to taste food as they prepare it

Pose questions to pupils:  
Do you like the flavour? Explain why / why not?

Challenge pupils to explain how flavours can be changed by adjusting seasoning, adding herbs, caramelising and marinating

Teach knife skills and techniques for preparing vegetables

**Senses**

Raw vegetables contain more vitamins

The dressing was quite sour and salty. I added too much lemon juice.

If I liked the taste of the grated apple, I did not like the bitterness of the cabbage.

The pepper did not really taste fresh, tasting like it had been in the fridge for a long time.

I preferred the red peppers to the green ones.

I found cutting the carrots very difficult.

The courgette was quite crunchy but it was very soft after cooking.

I used the courgette in my burger.

I need to chop the courgette into bigger chunks next time.

**Skills**

ribboning  
grating  
bridge (way of holding food with chopsticks)  
chopping

marinating – soaking food in a seasoned liquid before cooking

**Vitamins**

The body needs to get these from food.  
Fruit and vegetables contain lots of vitamins.

SIGHT	SMELL	TASTE	SOUND	TOUCH
colourful bright dark	minty fragrant perfumed	bitter sour salty sweet	crackling sterling sizzling	slimy rough soft crunchy mushy
HERBS	SWEET	SALTY	SOUP	BITTER
chives parsley dill	citrus lemon lime orange	briny salty savoury	creamy rich tangy	acrid bitter sour

**Herbs:** oregano, rosemary, thyme, mint, basil, parsley, chives, garlic, onion, leek, courgette, carrot, pepper, tomato, aubergine, courgette, carrot, pepper, tomato, aubergine.



## 6. HEALTH AND SAFETY WITHIN D & T

**At Lozells Junior, Infant and Nursery School we are committed to safeguarding and promoting the welfare of all children.**

School has a vigilant and Health and Safety conscious staff team who are compliant with necessary risk assessments.

School accesses an established Health and Safety organisation for support and guidance to ensure all risk assessments are in line with current statutory guidance, comprehensive and tailored to the requirements of the school equipment and facilities.

The school recently had a successful Health and Safety Audit carried out by Birmingham LA.

The Health and Safety aspect of the subject within CUSP ensures all children understand how to handle specialised equipment, food and materials correctly.

POTATO PEELER (CARVER)					
HAZARD/ACTIVITY	PERSONS AT RISK	RISK	CONTROL MEASURES IN USE	RESIDUAL RISK RATING H/M/L	FURTHER ACTION REQUIRED
					Yes No*
Injury transportation	Children Adults	Cuts	<ul style="list-style-type: none"> <li>Staff to hand children carvers once seated and after the tool talk</li> <li>Staff to understand procedures</li> </ul>	LOW	✓
Tool slipping when in use	Children Adults	Cuts	<ul style="list-style-type: none"> <li>Staff to ensure children are the correct distance away from each other (arm's length) to avoid contact in case of slipping</li> </ul>	LOW	✓
Carver coming in contact with another child	Children Adults	Cuts	<ul style="list-style-type: none"> <li>Staff to ensure children are correct distance away from each other (arm's length) in case of slipping</li> </ul>	LOW	✓
Carver storage during session	Children Adults	Cuts Stab injuries	<ul style="list-style-type: none"> <li>Staff keep carvers at all times when not in use</li> </ul>	LOW	✓
Children cutting finger when carving	Children Adults	Cuts	<ul style="list-style-type: none"> <li>Children to wear safety gloves on both hands</li> </ul>	LOW	✓

Example tool risk assessment.

## 7. DEVELOPING ENGLISH SPEAKING, READING AND WRITING SKILLS THROUGH ART

Every unit of CUSP D&T provides clear, concise and precise explanations and definitions of the target knowledge and vocabulary. This ensures consistency and clarity for teaching staff. Children are encouraged to use the new learnt technical vocabulary in their speech, and in their written work.






Core Knowledge	Explanation
senses	Senses are what the body uses to explore and interact with the world around us: sight, smell, taste, hearing and touch.
vitamins	Vitamins are a group of natural substances in food that are necessary for the growth and good health of the body.
sensory	Sensory refers to something that relates to the physical senses of touch, smell, taste, hearing and sight.

Technical Vocabulary	Definition
ribboning	to slice food such as vegetables into long, thin strips
caramelize	to cook a food that contains sugar so that the food becomes sweet and often brown
marinade (verb)	to soak food in a seasoned liquid before cooking to change its flavour and / or texture

### Oracy and Vocabulary: Y1 Food and Nutrition – Block C

Task 1: Work with a partner to sort these adjectives according to whether they are describing how something looks, feels, smells, sounds or tastes.

soft sour minty bright perfumed crumbly pungent deafening  
bitter smokey muffled spicy wet

Are there any words that belong in more than one set?

Exploration:

How can you change the texture of a carrot?  
Which has the most bitter taste – red, yellow or green peppers?  
Does grating a vegetable change the way it tastes?



Some questions are accompanied by a speech icon or (say). This is to indicate that verbal responses are required.

Every unit of CUSP D&T comes with two oracy and vocabulary tasks. Children are encouraged to use the new learnt technical vocabulary in their speech, and in their written work.

## 8. EQUALITY OF ACCESS AND EFFECTIVE SUPPORT FOR CHILDREN WITH SEND

Teachers are knowledgeable about current educational research and in particular Sweller's Cognitive load theory. Teachers understand that children with SEND related to cognition and learning may require support to hold new learning within their working memory and process new learning. Teachers understand how to adapt resources and teaching tools to support children with SEND. There is a continued focus on challenge and high aspirations for learners with SEND and teachers know that it is important to remove barriers children may have in demonstrating what they know and can do. We have very knowledgeable and 'expert' learners across many subjects who may also benefit from support with their SEND needs.

### **Adaptive teaching strategies can include:**

- Knowledge notes can be edited and adjusted for pupils with SEND. Teachers can ensure that these contain the essential, most important information children need with key vocabulary and carefully chosen icons to support children's understanding.
- Identifying alternative ways of recording
- Adapting to meet learners' needs
- Targeting additional input to lower attaining pupils and those with SEND
- Differentiating questions
- Setting clear objectives so that each child can understand them
- Make sure work is presented in small, achievable steps
- Chunk Knowledge Notes into manageable sections
- Highlight key vocabulary
- Annotation
- Verbally share knowledge and understanding
- Rehearse orally allowing pupils to formulate and practice responses before recording them

### **Reasonable adjustments for pupils with SEND:**

As part of the planning and preparation for the delivery of each block, teachers will need to consider how specific activities, or the delivery, may need to be adjusted to ensure that pupils with SEND are able to access the materials and participate fully in the lesson.

Pupils with language and communication difficulties (including those with ASD) may need additional visual prompts to help them understand what is expected of them. The task could be broken down into smaller, more manageable chunks and individual task boards used to demonstrate these.

Some pupils may have sensory sensitivities. For those pupils, adjustments may need to be made in order for them to access materials. Pupils who have difficulties with tasks requiring fine motor skills may need appropriate adjustments to be made to enable them to access the task and / or in order to keep them safe.

# 9. ANALYSING THE IMPACT OF OUR D&T CURRICULUM TO INCLUDE ASSESSMENT

Teacher assessment is carried out through on-going teacher assessment, **targeted questions for assessment**, vocabulary tasks and end of unit vocabulary quizzes.

## Vocabulary quiz

This slide has tasks for pupils to undertake after the block has been completed. It contains a range of questions requiring simple written responses covering the following: analysing words, defining words, making connections to other known words and using words in context. Technical vocabulary listed in the *Knowledge Note* is included in this section along with other key vocabulary that is used in the block.

### Analyse:

The questions in this section relate to the close analysis of the etymology and morphology of words and their origins.

### Connect:

Questions in the *Connect* section require pupils to make links to other known words and compare words for meaning. Different question types are used to elicit pupils' understanding of synonyms and antonyms and how words relate to each other.

Vocabulary: Y5 Textiles – Block C

<b>OWN-it</b> <i>Analyse</i> Write the root word of <i>insulate</i> . _____ Change the abstract noun to an adjective. <i>durability</i> / _____ Tick the correct word class for the word <i>regenerate</i> . <input type="checkbox"/> noun <input type="checkbox"/> verb <input type="checkbox"/> adverb	<b>KNOW-it</b> <i>Define</i> Write a definition of the word <i>insulate</i> . _____ Tick the most accurate definition of the word <i>weave</i> . <input type="checkbox"/> a type of cloth <input type="checkbox"/> a sample of cloth <input type="checkbox"/> an example of a pattern Write a definition of the word <i>waterproof</i> . Use only two words. _____
<b>LINK-it</b> <i>Connect</i> Tick the word that is not a synonym of <i>functional</i> . <input type="checkbox"/> broken <input type="checkbox"/> useful <input type="checkbox"/> practical <input type="checkbox"/> decoration Write three words that can be generated from the root word <i>function</i> . _____ Tick the synonyms of the word <i>match</i> . <input type="checkbox"/> example <input type="checkbox"/> view <input type="checkbox"/> case <input type="checkbox"/> sample	<b>USE-it</b> <i>Use in context</i> Explain two uses of <i>benzene</i> . _____ Explain the difference between natural and synthetic. _____ Tick the sentence if the word <i>propagator</i> has been used correctly. Then, write your own sentences using this word. <input type="checkbox"/> Being a good conductor of heat is one of the properties of copper.

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### Define:

Pupils are asked to show their understanding of the words they have been taught and have been using in their lessons by answering questions relating to word definitions.

### Use in context:

To further assess pupils' understanding of terminology, they are asked to use specific words appropriately in context. Some questions require pupils to write a full sentence while others require them to select the right option or complete a given sentence by filling a gap with the correct word.

## Questions for assessment



**Why** is it important to eat fruit and vegetables daily?

**If** you ate only one type of vegetable, would you get all the nutrients your body needs?

**Name** some types of food that have a savoury, sour or bitter flavour.

**What** could you do if your dressing has little flavour?

**Why** is eating different coloured vegetables good for you?

**How** could you make your dip more sour?

**Which** vegetable was easiest to prepare and why?

**How** might the taste, smell, appearance and texture of the vegetables change when they are cooked?

**Which** spice has a sweet, smokey, strong, subtle smell?

**How** has cooking changed the vegetables?

**Do** all types of food brown when cooked?

**What** changes would you make next time you make kebabs?

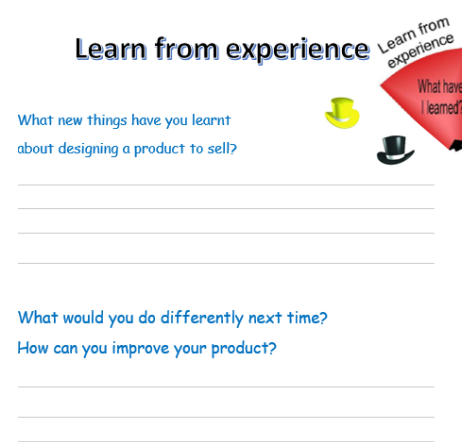
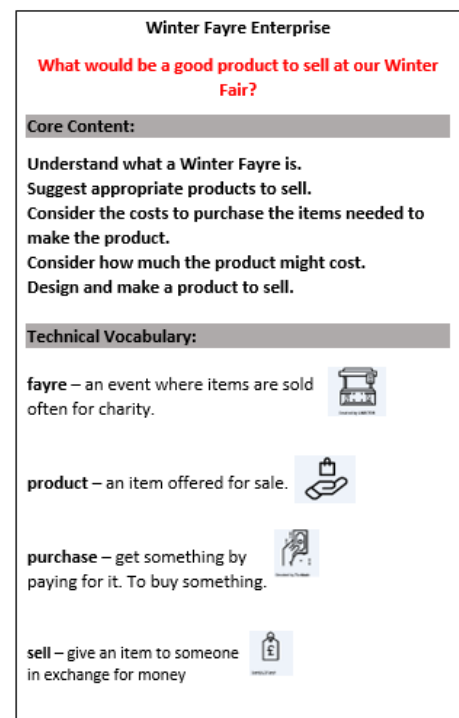
# 10. LOZELLS' ENTERPRISE RATIONALE

At Lozells Primary School, we realise that young people are living in a world where entrepreneurship is a very real and possible career choice. Effectively researching, collaborating with peers, making and organising the production of an item to sell enables children to develop numerous beneficial personal attributes encompassed within our curriculum drivers and our Lozells Learners programme.

Our whole-school enterprise initiatives across the year provide a valuable opportunity for children to develop key 'employability' skills such as resilience and problem-solving. Our children will be involved in the entire process including the sale of the items. This enables ALL our children to practice key skills of effective communication in a community setting.

## TASC wheel

Our use of the TASC wheel provides a clear framework to scaffold the children's thinking in design and is in line with the aims of the National Curriculum KS1 and KS2. The activities encompassed within the enterprise TASC booklets enable the children to further practice key skills identified within the National Curriculum in addition to timetabled D & T CUSP lessons. The teaching approach and sequence will be informed by the CUSP units.



Some example pages from the Lozells Enterprise KS1 TASC booklets.

# 11. TEACHER CPD AND SUBJECT DEVELOPMENT PRIORITIES

Priorities	Actions
Further development of D & T curriculum so that all children achieve high standards in knowledge and skills	<ul style="list-style-type: none"> <li>• Continued implementation of CUSP DT</li> <li>• CPD through CUSP</li> <li>• Establish use of 'Design Journals'</li> </ul>
Adequately resource D & T to facilitate high quality opportunities for all children	<ul style="list-style-type: none"> <li>• Allocated budget.</li> <li>• Subject Leader to support audit and purchases.</li> <li>• Allocated time to organise resources and prepare materials.</li> <li>• Aldi vouchers to enable ease of purchase of food items following approved requisition form.</li> <li>• Subject Leader to review and update all Health and Safety Risk Assessments – guidance sought from Elite if necessary.</li> </ul>
Teacher subject knowledge – developing teacher's confidence in their own D&T knowledge and skills so that teaching enables children to become 'experts'	<ul style="list-style-type: none"> <li>• CUSP video tutorials</li> <li>• Subject Leader team teaching D&amp;T units alongside teachers</li> </ul>
Raise the profile of D&T within the school community so that children see that subjects related to D & T can be an option within secondary school and as future careers	<ul style="list-style-type: none"> <li>• Engagement in the CUSP D&amp;T Food Festival</li> <li>• D&amp;T exhibitions for parents and governors</li> <li>• Lozells whole-school enterprise initiatives</li> </ul>