

# DESIGN AND TECHNOLOGY








AT

HAZEL LEYS ACADEMY



engineer tools  
shape cut  
saw design  
evaluate sketch

# HAZEL LEYS ACADEMY CURRICULUM INTENT

VALUES	  
INTENT	<p>At Hazel Leys Academy, we aim to provide all pupils with a well-sequenced, knowledge-rich curriculum, centered around a stimulating and inclusive educational environment in which everyone feels safe, respected, and supported to grow and develop to their full potential. Our school's vision is to <b>ignite</b> the spark of curiosity in every child. We want to make them excited about learning new things and discovering the world around them.</p> <p>We encourage them to <b>aspire</b> to great heights, to dream big and believe in themselves. With hard work and dedication, we believe they can <b>achieve</b> anything they set their minds to and become exceptional contributors to their communities. Together, we can <b>ignite, aspire, and achieve</b> amazing things!</p> <ul style="list-style-type: none"> <li>• <b>Ignite.</b> We ignite passions.</li> <li>• <b>Aspire.</b> We inspire aspirations.</li> <li>• <b>Achieve.</b> We achieve greatness.</li> </ul> <p>The principles of our knowledge-rich curriculum are:</p> <ul style="list-style-type: none"> <li>• Knowledge is <b>valued</b> and <b>specified</b></li> <li>• Knowledge is <b>well-sequenced</b></li> <li>• Knowledge is <b>taught to be remembered</b></li> </ul> <p>The content in our curriculum has been carefully chosen by subject experts and has been sequenced in a meaningful way that enables children to make connections and progress from unit to unit, term to term and year to year, supported by additional schemes of work such as Teach Computing, Jigsaw and Primary Languages.</p>   
SKILLS FOR LIFE	<p>The curriculum entitlement supports the development of individual essential skills for life through the Skills Builder aspects:</p> <ol style="list-style-type: none"> <li>1. Listening</li> <li>2. Speaking</li> <li>3. Problem Solving</li> <li>4. Creativity</li> <li>5. Staying Positive</li> <li>6. Aiming High</li> <li>7. Leadership</li> <li>8. Teamwork</li> </ol> 

## OVERVIEW

At Hazel Leys, we believe that a comprehensive design and technology curriculum is a knowledge rich curriculum. This curriculum aims to inspire students to think about the important and integral role which design and the creation of designed products play in our society. Wherever we look, evidence of design is all around us. From chairs to hospital equipment, from clothes to websites, from advertisements on the side of a bus to playground equipment, everything has been designed

The curriculum fulfils the requirements of the National Curriculum for England. This course of study seeks to show how design and technology shapes the world around us. The curriculum is split into three different areas: 'cook', 'sew' and 'build'. It is designed so that each year group will complete a unit of work in these three different areas once a year. Two different 'aspects' of design are interwoven into the three areas of study: the environment and sustainability, and enterprise and innovation. These 'aspects' acknowledge enduring and contemporary concerns of modern design.

## INTENT

Each unit specifies the concepts and skills which the students are expected to learn over the course of a unit. These concepts and skills progress gradually throughout the course of the six years of study.

In 'cook' students learn to cook from recipes which gradually build basic culinary skills, culminating in year six with the creation of a mezze-style meal requiring the pupils to produce various small dishes. Whilst studying these practical skills they learn about concepts relating to food such as nutrition, seasonality, food production, transportation and food from different cultures. In each session the children cook from one recipe.

In 'sew' students practise using fabric and thread to learn basic sewing techniques to create objects which demonstrate embroidery, appliqué, weaving and plaiting. Concepts such as the properties and creation of different fabrics, fast fashion, industrialisation, waste, recycling and pollution are interwoven into these activities.

In 'build' students learn about the creation of structures and mechanical and electrical devices to create products such as cars, moving cards, toys and books. This culminates with year six learning to consider the user in real life, designing a water wall for children in reception. Once again, the practical process of designing and creating a product is interleaved with learning about concepts which have a bearing on what the students make. These concepts, for example force, motion and the properties of materials are often connected with those encountered in the science curriculum.

## IMPLEMENTATION

At Hazel Leys, the sequence of lessons in the 'sew' and 'build' areas of study follow a structure to enable the students to become familiar with, understand and practise the process of design: research and investigate, design, make, use and evaluate. The planning for each unit of work specifies the product the children will make, the purpose and user of the product. This specification acknowledges the importance of purpose and user within in the design process. Throughout the course of the lessons the students explore existing products and their uses, generate ideas and designs by creating drawings and prototypes against criteria which they devise having considered purpose, function and appeal. Evaluation against these criteria concludes the process. All staff know that discussion is an important part of this process, as is consideration of the properties of potential materials and the choice of tools. Learning about fundamental concepts, skills, developments in history and understanding of the influence of key individuals in the field are interleaved into this process-driven structure.

The students' understanding of key skills and concepts builds from year to year, assessing and cementing prior learning, and therefore the implementation of the curriculum in the given sequence is crucial. The curriculum is designed to be delivered alongside our knowledge rich art, science and history curricula, as parts of it directly relate to areas of knowledge which the pupils acquire in these subjects. Where a unit looks at concepts which are also addressed in these subjects, the design and technology unit is generally taught after units in these other disciplines. This allows the children to approach their study of design and technology with a degree of confidence and 'expertise' and to consolidate their knowledge by creating connections between the different disciplines.

It is expected that students' study will be recorded in sketchbooks. These should be viewed as working documents which evidence the design process and may include notes, annotated photographs, drawings, diagrams and photographs of prototypes and finished work, as well as students' evaluation of the projects which they undertake. This will ensure that teachers and pupils alike can easily identify progression in knowledge, process and application of skills.

At Hazel Leys, we recognised that the procurement and management of resources is a large part of delivering a design and technology curriculum. Every effort has been made to provide activities which use economic or recycled resources. In addition, the sequence of units ensures that only two year-groups at a time are using the same set of resources so that the purchase of equipment is kept to a minimum. To emphasise the importance of the user/consumer in the process of design there is provision each term for students to take part in an event to celebrate what they have made. This also creates the opportunity for students across different year groups to work together.

### EYFS

Through Expressive Arts children are encouraged to explore different media, explore how media can be combined to create different effects and develop a range of skills and techniques experimenting with colour, design, texture, form and function. Children are given daily access to a range of creative opportunities and enjoy our carefully planned and well-resourced creative areas both indoors and out. Children are encouraged to create on both small and large scales and our outdoor environment supports this well. Staff encourage the children to develop their communication and language skills through talking about their creations and sharing these with others to build confidence and raise self-esteem.

Every unit of work covers all of the Early Learning Goals (ELG's) within the Early Years Framework. With children having opportunities to return to skills in order to develop mastery within art.

## IMPACT

The impact of this curriculum design will lead to progress across key stages relative to a child's individual starting point and their progression of skills. Our Design and Technology curriculum will also lead pupils to be enthusiastic learners, evidenced in a range of ways, including pupil voice, product research, final pieces and evaluations. We ensure that children who are achieving well, as well as those who need additional support, are identified, and additional provision and strategies are planned in and discussed with class teachers. Achievements are celebrated in classrooms by displaying cross-curricular work and our whole school design and technology displays.

We will measure the impact of our curriculum through the following methods:

- Annual reporting of standards across the curriculum.
- A reflection on standards achieved against the planned outcomes;
- A celebration of learning for each term which demonstrates progression across the school;

- Pupil discussions about their learning; which includes discussion of their thoughts, ideas, processing and evaluations of work.
- End of unit quizzes

Pupils should leave school equipped with a range of skills to enable them to succeed in their secondary education and be innovative and resourceful members of society. We will be able to evaluate the impact of our Design and Technology curriculum through recording the children’s voice and monitoring the work that they produce.

We expect that children will be able to demonstrate:

- An understanding of functional and aesthetic properties of a range of materials and resources.
- An understanding of how to use and combine tools to carry out different processes for shaping, decorating, and manufacturing products.
- An ability to build and apply a repertoire of skills, knowledge and understanding to produce high quality, innovative outcomes, including models, prototypes, CAD, and products to fulfil the needs of users, clients, and scenarios.
- An understanding and application of the principles of healthy eating, diets, and recipes, including key processes, food groups and cooking equipment.
- An appreciation for key individuals, inventions, and events in history and of today that impact our world.
- Recognition of where our decisions can impact the wider world in terms of community, social and environmental issues.
- Self-evaluation skills and reflect on learning at different stages and identify areas to improve.
- The end of key stage expectations outlined in the National curriculum for Design and technology.

## CURRICULUM DESIGN - OVERVIEW

### EYFS - DT

Term	Autumn A	Autumn B	Spring A	Spring B	Summer A	Summer B
Nursery	Exploring colour. Painting with primary colours. Mixing secondary colours. A study of Miro. Painting: portraits Rhythm, Pulse and Sound Composer:	Colour and the seasons. Exploring which colours show us different seasons. A study of Pissarro’s season paintings. Cutting: snowflake design	Exploring line. Taking a line for a walk. Creating drip paintings like Jackson Pollock. Creating pictures like Hundertwasser using spirals and curved	Exploring what we can see in the world around us. Studying how Van Gogh used different marks to draw still life. Looking at Lowry and drawing our own houses and “matchstick” people.	Animals in art. A study of Rousseau’s “Tiger in a Tropical Storm”. Painting real fish with ink and wax resist. Instrumental Activities Composer: Louis Armstrong Music and dance	People in art. Looking at Degas’ ballerinas. Practising drawing people. Creating clay sculptures of “Miro-like” people. Fashion: experimenting with fabric to design a

	<p>Wolfgang Amadeus Mozart, Allegro from A Little Night Music. Miro's work</p>	<p>Singing in a group (Christmas Performances) Composer: Sergei Prokofiev, Peter and the Wolf Pissarro's seasons paintings</p>	<p>lines. Puppets: Chinese New Year Bloom app on iPad to create repeating patterns of music Playing with Sounds: Pitch Listening to and responding to Holst's Planet Suite Composer: Englebert Humperdinck, Hansel and Gretel Jackson Pollock</p>	<p>Using the architecture of Hundertwasser to inspire us to draw imaginary houses. Design: making a boat that floats and another vehicle that moves with wheels Create: Easter bonnets Playing with Sounds: Singing Games including call and response Lowry's houses and architecture of Hundertwasser</p>	<p>sessions: link to Carnival of the Animals Composer: Paul Dukas, The Sorcerer's Apprentice Van Gogh's Sunflowers</p>	<p>suitable piece of sports wear Instrumental activities: Composition: using percussion instruments Composer: G.F. Handel Degas' Ballet Dancer</p>
Reception	<p>Exploring colour. Painting with primary colours. Mixing secondary colours. A study of Miro. Painting: portraits Rhythm, Pulse and Sound Composer: Wolfgang Amadeus Mozart, Allegro from A Little Night Music. Miro's work</p>	<p>Colour and the seasons. Exploring which colours show us different seasons. A study of Pissarro's season paintings. Cutting: snowflake design Singing in a group (Christmas Performances) Composer: Sergei Prokofiev, Peter and the Wolf Pissarro's seasons paintings</p>	<p>Exploring line. Taking a line for a walk. Creating drip paintings like Jackson Pollock. Creating pictures like Hundertwasser using spirals and curved lines. Puppets: Chinese New Year Bloom app on iPad to create repeating patterns of music Playing with Sounds: Pitch Listening to and responding to Holst's Planet Suite Composer: Englebert Humperdinck, Hansel and Gretel Jackson Pollock</p>	<p>Exploring what we can see in the world around us. Studying how Van Gogh used different marks to draw still life. Looking at Lowry and drawing our own houses and "matchstick" people. Using the architecture of Hundertwasser to inspire us to draw imaginary houses. Design: making a boat that floats and another vehicle that moves with wheels Create: Easter bonnets Playing with Sounds: Singing Games</p>	<p>Animals in art. A study of Rousseau's "Tiger in a Tropical Storm". Painting real fish with ink and wax resist. Instrumental Activities Composer: Louis Armstrong Music and dance sessions: link to Carnival of the Animals Composer: Paul Dukas, The Sorcerer's Apprentice Van Gogh's Sunflowers</p>	<p>People in art. Looking at Degas' ballerinas. Practising drawing people. Creating clay sculptures of "Miro-like" people. Fashion: experimenting with fabric to design a suitable piece of sports wear Instrumental activities: Composition: using percussion instruments Composer: G.F. Handel Degas' Ballet Dancer</p>

including call and response  
Lowry's houses and architecture of Hunderwasser

## Year 1

### Autumn Cook

#### Dips and Vegetables

##### Concepts

Nutrition—vegetables  
Sweet v savoury  
Cooked v raw  
Cooking from different cultures—Greece

##### Skills

Following a simple recipe  
Measuring in spoonfuls  
Cutting, chopping  
Using a knife and a chopping board  
Bridge and claw technique  
Cutting with scissors  
Mashing, mixing

#### Jam Tarts/Mince Pies

##### Concepts

What is a recipe?  
Cooking from different cultures—England  
Sweet v savoury, cooked v raw  
A pie can be made with pastry  
Seasonality—preserving fruit for the winter

##### Skills

Following a simple recipe  
Measuring in spoonfuls  
Rubbing fat into flour  
Mixing  
Making, rolling and cutting pastry  
Baking  
Cooling

### Spring Sew

#### Animal Sock Puppets

##### Concepts

Process of design  
Making products with fabric  
Properties of a range of materials  
Using suitable materials  
Fixing fabric together  
Reusing/recycling materials  
Features of a puppet  
Features of different animals

##### Skills

**Research and Investigate:** Existing products  
**Design:** Understand criteria (user, purpose, function, appeal), generate/develop ideas, talking, drawing, labelling  
**Make:** Select tools/materials, making paper templates, drawing/cutting shapes, gluing, joining fabric, drying  
**Use and Evaluate:** Recording of children using puppets, evaluate against criteria

### Summer Build

#### Vehicles

##### Concepts

Process of design  
Vehicles: user and purpose  
Mechanical systems: wheels and axles  
Wheels and axles in everyday examples  
Structures and materials—strong, stiff and stable.  
Materials—properties and functionality  
Vehicles and pollution

##### Skills

**Research and Investigate:** Different types of vehicles, different parts of a vehicle, explore wheels and axles in toy cars  
**Design:** Understand criteria (user, purpose, function, appeal), generate/innovate/develop ideas, talking, drawing, labelling  
**Make:** Select tools/materials for making a toy vehicle with wheels and axles, cutting, different ways of joining, decorating, finishing  
**Use and Evaluate:** Car racing in the playground exploring speed, film/photograph children doing this, evaluation against criteria and existing products

## Year 2

### Autumn Cook

#### Pizza

##### Concepts

Processed v home-made food  
Preserving food  
Cooking from different cultures—Naples, Italy  
History and cost of food  
Savoury

##### Skills

Following a simple recipe, measuring using spoons  
Mixing/making a dough/kneading, rolling and shaping  
Spreading  
Cutting/Slicing—bridge and claw technique  
Tearing  
Presentation  
Baking

#### Gingerbread

##### Concepts

Spices, spicy/sweet  
History of food, food transport and cost of ingredients  
Decoration  
Cooked v raw  
Baking

##### Skills

Following a simple recipe  
Measuring using spoons  
Chopping, Mixing  
Rubbing fat into flour  
Cracking an egg  
Making a dough, rolling, cutting  
Baking, cooling, decorating

### Spring Sew

#### Pencil Cases

##### Concepts

Process of design  
Features of a pencil case—size, materials, fastenings, shape, joining, decoration  
Using suitable materials  
Properties of different materials  
Making products with fabric  
Join fabric together—sewing and gluing  
Creating stiches with a needle and thread

##### Skills

**Research and Investigate:** Existing products  
**Design:** Understand criteria (user, purpose, function, appeal), generate/develop ideas, talking, drawing, labelling  
**Make:** Select tools/materials, making paper templates/patterns, drawing/cutting shapes, threading a needle, tying a knot, running stitch, sewing on a button, gluing on decoration  
**Use and Evaluate:** Photograph pencil cases, written evaluation against criteria

### Summer Build

#### Moving Pictures

##### Concepts

Process of design  
Mechanical systems: levers and sliders  
Levers and sliders in everyday examples  
Structures and materials to make levers and sliders in moving pictures strong, stiff and stable.

##### Skills

**Research and Investigate:** Levers and sliders, examples of what products which used these: see saw, scissors, hammer, wheelbarrow, shaduf, research examples of moving pictures  
**Design:** Understand criteria (user, purpose, function, appeal), generate/innovate/develop ideas, talking, drawing, labelling, creating a mock up  
**Make:** Select tools/materials for making a moving picture with levers and sliders, cutting, different ways of joining decorating, finishing  
**Use and Evaluate:** Photograph pictures, evaluation against criteria and existing products

## Year 3

### Autumn Sew

#### Key Rings/Decorations

##### Concepts

Process of design  
Making products with fabric  
Types of fabric - natural/synthetic  
Properties of fabric—thickness, softness, stretchiness  
How fabric is fit for purpose  
Features of a key ring/decoration—size, materials, shape, joining, stitching, decoration

##### Skills

**Research and Investigate:** Examples of key rings/ decorations, different fabrics, how to make felt  
**Design:** Devising criteria (user, purpose, function, appeal), generate/innovate/develop ideas, annotated drawings  
**Make:** Select tools/materials, making paper templates/ patterns, drawing/cutting shapes, pinning, threading a needle, tying a knot, running stitch, backstitch, joining, stuffing, gluing, sewing/gluing on a loop  
**Use and Evaluate:** Photograph, written peer evaluation— against criteria and existing products

### Spring Build

#### Pop-up Books

##### Concepts

Process of design  
Mechanical systems: linkages: moving pivot, fixed pivot, types of motion  
Linkages: uses and purpose in everyday examples  
Materials to make linkages in moving books: strong, stiff and stable.

##### Skills

**Research and Investigate:** Linkages, examples of what products which used these: clothes horse, lifts, tool box, engines  
**Design:** Devising criteria (user, purpose, function, appeal), generate/innovate/develop ideas, create annotated drawings and prototypes  
**Make:** Select tools/materials for making pop-up book with linkages, cutting, different ways of joining, decorating, finishing  
**Use and Evaluate:** Photograph books, written evaluation against criteria and existing products

### Summer Cook

#### Bread and Butter

##### Concepts

Sweet/Savoury  
Making bread with flour made from wheat  
Yeast, wholegrains and health  
Baking  
Dairy products, milk and butter production

##### Skills

Following a recipe, measuring using scales  
Using yeast  
Mixing  
Making a dough, kneading, rising  
Baking  
Cooling  
Slicing, spreading

#### Pasta

##### Concepts

Sweet/Savoury  
Food from different cultures  
Pasta, pasta production  
Vegetables are part of a healthy diet  
Tomatoes—production, preserving

##### Skills

Following a recipe  
Weighing using scales  
Using a knife—claw method  
Using a chopping board  
Chopping  
Peeling  
Pressing

**Autumn**  
**Sew**

**Cushions**

**Concepts**

Process of design  
 Making products with fabric  
 Types of fabric - natural/synthetic  
 Properties of fabric—thickness, softness, stretchiness  
 Features of a cushion – size, materials, shape, joining, decoration  
 Decoration—appliqué

**Skills**

**Research and Investigate:** Appliqué, cushions, running stitch, backstitch, overcast stitch (whipstitch)  
**Design:** Devising criteria (user, purpose, function, appeal), generate/innovate/develop ideas, annotated drawings  
**Make:** Select tools/materials, making paper templates/patterns, drawing/cutting shapes, pinning, threading a needle, tying a knot, running stitch, backstitch, overcast stitch (whipstitch), appliqué, stuffing  
**Use and Evaluate:** Photograph, written evaluation, peer evaluation—against criteria

**Spring**  
**Build**

**Moving Miniature Playgrounds**

**Concepts**

Process of design  
 Mechanical systems: gears, teeth, interlock, motion transfer, drive gear, driven gear, gearing up, gearing down  
 Gears: user and purpose in everyday examples  
 Structures and materials to make a product with gears — 3d shapes, strong, stiff and stable.  
 Electrical systems: circuits, batteries, bulbs and buzzers

**Skills**

**Research and Investigate:** Gears; examples of products which used these: tin openers, bicycles, how gears on a bicycle work, history of gears, ancient Greek Antikythera mechanism (used to predict astronomical positions)  
**Design:** Devising criteria (user, purpose, function, appeal), generate/innovate/develop ideas, create annotated drawings and exploded diagrams  
**Make:** Select tools/materials for making a moving toy with gears and an electrical circuit, cutting, different ways of joining, decorating, finishing  
**Use and Evaluate:** Written evaluation against criteria and existing products

**Summer**  
**Cook**

**Ratatouille and Couscous**

**Concepts**

Sweet/Savoury  
 Ratatouille—food from France  
 Couscous—food from North Africa  
 Vegetables as part of a healthy diet  
 The different parts of a plant which we eat

**Skills**

Following a recipe  
 Weighing using scales  
 Using a knife—bridge and claw method  
 Using a chopping board, chopping  
 Peeling an onion  
 Cooking vegetables  
 Soaking

**Apple Crumble**

**Concepts**

Sweet/Savoury  
 British cooking  
 Different varieties of apples, seasonality  
 Apples as part of a healthy diet  
 Environment, sustainability, affordability

**Skills**

Following a recipe, weighing using scales  
 Peeling, coring, chopping  
 Using a knife—bridge method  
 Using a chopping board  
 Rubbing fat into flour  
 Sprinkling  
 Baking, cooling

## Year 5

### Autumn Build

#### Cams Toys

##### Concepts

Process of design

Mechanical systems: cams, followers, sliders, camshaft, rotary motion, linear motion, cam profiles

Everyday examples and purpose of cams mechanisms

Structures and materials to make products with cams and followers —3d shapes, strong, stiff and stable

##### Skills

**Research and Investigate:** Cams mechanisms, examples of what products use cams and followers (mechanical toys, sewing machines, engines, clocks), history of cams and mechanisms (Ismail al-Jazari), structure of a cams toy

**Design** Devising criteria (user, purpose, function, appeal), generate/innovate/develop ideas, create annotated drawings, cross-sectional diagrams

**Make** Select tools/materials for making a cam toy, cutting, different ways of joining, decorating, finishing

**Use and Evaluate** Videod peer evaluation—against criteria and existing products

### Spring Cook

#### Pitta Bread

##### Concepts

Sweet/Savoury

Bread as part of a balanced, healthy diet, different types

Using yeast—leavened/unleavened bread, baking

Cooking from different cultures

Wheat production

##### Skills

Following a recipe

Measuring using scales

Activating yeast

Mixing

Making a dough, kneading

Rolling and shaping

Baking, cooling

#### Honey Cake

##### Concepts

Sweet/Savoury

Honey production and history

Health benefits of honey

Cooking from different cultures

Baking

##### Skills

Following a recipe, measuring using scales

Mixing

Cracking an egg

Beating

Pouring

Sprinkling

Baking, cooling

### Summer Sew

#### Bags

##### Concepts

Process of design

Making products with fabric

Types of fabric—natural/synthetic

Properties and suitability of fabric

How fabrics are made—weaving

Features of a bag – size, materials, fastenings, shape, joining, decoration, handles.

Decoration—appliqué, embroidery

##### Skills

**Research and Investigate:** Methods of decoration—appliqué, embroidery, bag design, materials and features

**Design:** Devising criteria (user, purpose, function, appeal), generate/innovate/develop ideas, annotated drawings

**Make:** Select tools/materials, drawing/cutting shapes, pinning, threading a needle, tying a knot, backstitch, overcast stitch (whipstitch), joining, embroidery, appliqué, plaiting

**Use and Evaluate:** Written evaluation, photograph, film peer evaluation—against criteria and existing products

**Autumn  
Build**

**Water Walls**

**Concepts**

Process of design  
 Mechanisms: pulleys, Archimedes' screw  
 Everyday examples and purpose of pulleys, purpose of Archimedes' screw  
 Structures and materials to make products with pulleys in everyday examples—3d shapes, strong, stiff and stable  
 Plastics pollution/recycling/reuse  
 Use of electricity and connection to global warming  
 Engineering systems to create environmentally friendly solutions—Nav Sawhney and the Washing Machine Project.  
 Appropriate use of materials

**Skills**

**Research and Investigate:** Investigate water wall and pulleys  
**Design:** Devising criteria (user, purpose, function, appeal), generate/innovate/develop ideas, create annotated drawings and prototypes  
**Make:** Select tools/materials for making a water wall for Reception with recycled objects, cutting, tying knots, sticking, making holes  
**Use and Evaluate:** Evaluation with user (Reception)—against criteria and existing products

**Spring  
Cook/Build**

**Mezze**

**Concepts**

Sweet/Savoury  
 Bread as part of a balanced, healthy diet, different types  
 Using yeast—leavened/unleavened bread, baking  
 Cooking from different cultures  
 Wheat production

**Skills**

Following a recipe, weighing ingredients using scales  
 Using a knife—bridge and claw method  
 Chopping, grating  
 Squeezing a lemon  
 Using a garlic press, seasoning  
 Soaking, mixing, mashing  
 Cracking an egg, cooking with meat

**Electrical Toys**

**Concepts**

Process of design  
 Electrical Toys: user and purpose in everyday examples.  
 Electrical systems: circuits, batteries, bulbs, buzzers and motors.  
 Structures and materials to make a product with an electrical circuit — 3d shapes, strong, stiff and stable.

**Skills**

**Research and Investigate:** Examples of products which use electrical circuits  
**Design:** Devising criteria (user, purpose, function, appeal); generate/innovate/develop ideas; create annotated drawings  
**Make:** Select tools/materials for making a toy with an electrical circuit, connecting components, cutting, joining, decorating, finishing  
**Use and Evaluate:** Written evaluation against criteria and existing products

**Summer  
Sew**

**Upcycling Fashion**

**Concepts**

Process of design  
 Fast fashion and globalisation  
 Waste and pollution  
 Upcycling, recycling, sustainability  
 Processes for making clothes—seams and hems  
 Decoration—appliqué, embroidery, buttons, gluing

**Skills**

**Research and Investigate:** Fast fashion, upcycling, recycling, sustainability  
**Design:** Devising criteria (user, purpose, function, appeal), generate/innovate/develop ideas, annotated drawings, pattern pieces  
**Make:** Experimentation with upcycling existing garments, select tools/materials, drawing/cutting shapes, creating pattern pieces, pinning, threading a needle, tying a knot, joining, appliqué, embroidery, running stitch, backstitch, overcast stitch, plaiting, attaching a button  
**Use and Evaluate:** Written evaluation, photograph, evaluation—against criteria and existing products, film fashion show

**SEND** – Strategies for supporting access

- Break down learning – now/then
- Adult support – start off then independent (where possible)
- Images to support
- Specific simple instructions
- Adaptive teaching
- Prior knowledge recapped.
- Clear vocabulary taught.
- Staff modelling.

**Enrichment**

Educational visits are another opportunity for Art to take place outside of the classroom.

- Local jobs using DT
- Creating for a purpose
- DT competitions in house teams
- DT half term projects

**SUBJECT LEADERSHIP AND DEVELOPMENT****Subject Strengths**

- Pupil enjoyment of DT lessons
- Collaborative approach to the planning – LTP/MTP with all staff
- Clear sequence of learning in planning
- Consistent lesson structure

**Areas to Develop**

- Presentation in DT books.
- Parental involvement

**Monitoring**

- T1 Focus – Lesson observations, pupil voice, book scrutiny, PP focus.
- T2 Focus – Lesson observations, pupil voice, book scrutiny, SEND/EAL focus.
- T3 Focus – Lesson observations, pupil voice, book scrutiny, INT/PP focus.

**CPD**

- Developing challenge in DT lessons.