

# PHOENIX PRIMARY SCHOOL

## DESIGN AND TECHNOLOGY POLICY 2024/25

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### 1.1 OVERVIEW

Design and Technology encourages children to learn to think and intervene creatively to solve problems both as individuals and as members of a team. They are taught to look for opportunities and to respond to them by developing a range of ideas and making a range of products. The children are also given opportunities to reflect upon and evaluate past and present design technology, its uses and its effectiveness and are encouraged to become innovators

### 1.2 AIMS/OBJECTIVES

- ✓ To develop children's designing and making skills,
- ✓ To teach children the knowledge and understanding, within each child's ability, that will be required to complete the making of their product,
- ✓ To teach children the safe and effective use of a range of tools, materials and components,
- ✓ To develop children's understanding of the ways in which people have designed products in the past and present to meet their needs,
- ✓ To develop children's creativity and innovation through designing and making,
- ✓ To develop children's knowledge of famous designers.

### 1.3 NATIONAL CURRICULUM

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.

### 1.4 STRATEGIES

- i. Pupils will be taught to use a range of materials creatively to design and make products.
- ii. Pupils will be taught how to develop a wide range of design techniques in using colour, pattern, texture, line, shape, form and space.
- iii. Pupils will be taught to develop their techniques, including their control and their use of materials, with creativity, experimentation and an increasing awareness of different kinds of design.
- iv. All children will be encouraged and shown how to improve their mastery of design techniques, including drawing.
- v. All will learn about the work of a range of designers, evaluating their designs and comparing their work.

### 1.5 ROLES

The Subject Leader's role is:

- Prepare policy and develop policy

- Provide consultancy, advice, skills
- Specifying and ordering resources in consultation with staff
- Monitor teaching and learning in Design Technology.

The teacher's role is:

- Plan for and teach exciting and stimulating design technology lesson.
- Use assessment to influence future planning.

## 1.6 OUTCOMES

During their time in this school children will benefit from a broad and balanced programme of design technology. They will experience and experiment with a wide range of materials as they explore design to grow and flourish as designers. They will build a growing awareness of the design technology which runs through their own history, as they are introduced to famous designers and their designs. They will learn the techniques to produce their designs and the importance of evaluating and improving their designs.

## 1.7 INTENT & IMPLEMENTATION - CUSP

The CUSP Design and Technology curriculum is organised into blocks with each block covering a particular set of disciplines, including food and nutrition, mechanisms, structures, systems, electrical systems, understanding materials and textiles. 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. In addition to the core knowledge required to be successful within each discipline, the 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.

The CUSP Design and Technology package includes a sequence of skeleton lesson plans, contextual reference materials, vocabulary modules focusing on language of emotion, explanatory videos and annotated exemplifications.

The teacher videos complement the content in each block and provide clear instruction about relevant techniques, skills and methods. The exemplifications can be used to inform assessment of pupil outcomes and to support teachers in developing their own subject knowledge. Teachers are also provided with a list of materials and resources that they will need to deliver each block. The components of the suite should be viewed together for maximum impact.

Central to the learning modules are activities designed to develop pupils' oracy and vocabulary skills to enable them to use the language associated with design and technology meaningfully when talking about their work and the work of others.

An overview of the core content provides information about the skills covered across the term in each year group. This allows teachers to see the progression of skills included within each aspect of design and technology.

## **1.8 PLANNING**

The programme of study for Design and Technology for Year 1 to Year 6 is taught through our creative curriculum. Each thematic topic has an art link which is then explored by each class.

Skills in the Foundation Stage are planned through the objectives within the EYFS.

Teachers from the Foundation Stage to Year 6 will plan to ensure full coverage of the skills relating to the Design and Technology curriculum for that year group throughout the year. Teachers will plan before the start of each new theme, and at this point highlight the skills to be covered. Although the individual lessons might, by the very nature of creativity, be slightly different from class to class within a year group, the most important aspect to consider is the skills that need to be covered.

## **1.9 RECORD KEEPING, ASSESSMENT AND REPORTING**

As with all areas of the curriculum, assessment is an integral part of the teaching process. Class teachers should keep records of work carried out, and levels of achievement of the work. Photographs are a useful tool to keep, as a reminder of pupil's achievement. These are uploaded onto SeeSaw.

CUSP recommends that assessment of pupils is formative and is based on pupil outcomes and questioning from each lesson. The following can be used to assess pupils' knowledge and application of skills and techniques as well as their understanding and use of relevant vocabulary.

- Expectations for each block are made explicit on slide one, e.g. At the end of this block pupils will know how to waterproof cotton fabric and which fabrics are both functional and hardwearing.
- The Point of reflection section specifies the expected outcomes for each lesson.
- The Questions for assessment section in each block provides specific questions to be used with pupils to elicit their level of understanding of tools, techniques and effects, e.g. How have the properties of the cotton changed? Is the cotton now more or less functional?
- The Oracy and Vocabulary tasks provide ample opportunities for teachers to evaluate pupils' ability to:
  - use the language of design and technology effectively;
  - explain techniques, skills and processes;
  - evaluate their own and others' work.
- The vocabulary quiz provides an opportunity for teachers to assess pupils' deeper understanding and application of the technical vocabulary covered in the block.
- The exemplifications demonstrate the expected standard against which teachers can assess pupils' work.

The best form of assessment in design and technology is at the point of delivery, while pupils are working. This helps us to understand pupils' development as designers, rather than their ability to produce a prescribed end outcome. By encouraging pupils to articulate their thinking and reflections, we can understand which aspects of design and technology may require additional teaching and reshape teaching to support this.

## **1.10 MONITORING AND EVALUATION**

The teaching and learning of design technology will be monitored through the analysis of medium term planning, pupil interviews, analysis of assessment data and scrutiny of work samples.

The policy for design technology will be reviewed. Evaluation will take into account:

- External inspection / advice
- Staff development
- Coverage of objectives

### **1.11 HYGIENE AND SAFETY**

It is important that children are taught essential life skills to enable them to participate confidently and safely in designing and making in society. Teachers have a duty to introduce children to a wide variety of production processes and the correct tools for the task. Children must design considering health and safety issues and consequences and operate in a safe and hygienic manner when designing. The subject leader, if required, supports teachers to teach the skills necessary ensuring that children can design and make safely.

The blocks highlight key tools, techniques and tasks for which potential risks need to be carefully managed. However, schools should follow their own risk assessment guidelines and policies when delivering CUSP Design and Technology. Regarding food and nutrition, it is advisable for the Design and Technology subject leader to have a basic certificate in food hygiene.

### **1.12 WELLBEING**

Mental health and wellbeing is at the forefront of everything we do, from children to all staff across the school. We have an open door policy within our environment and we offer all the opportunity to express themselves appropriately and ensure that matters of concern are dealt with correctly and supportively.

### **1.13 INCLUSION**

At Phoenix Primary we plan to provide for all pupils to achieve, including boys and girls, higher achieving pupils, gifted and talented pupils, those with SEN, pupils with disabilities, pupils from all social and cultural backgrounds, children who are in care and those subject to safeguarding, pupils from different ethnic groups and those from diverse linguistic backgrounds.

### **1.14 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.

### **1.15 MISSION STATEMENT**

'Where We Rise To The Challenge'

Working together as a whole school community we aim for all pupils, parents and staff to increase their participation within our school. This is achieved through the development of inclusive cultures, policies and



practices. We take account of disability, race and gender to create a secure and accepting community where everyone feels valued.

We strive towards an outstanding school that provides a creative and enriching learning experience for all pupils. We respond to the diversity of need through our commitment to equality; overcoming potential barriers to learning and setting suitable personalised targets.

We set high expectations and expect every child to thrive. They should reach their full potential, recognising personal strengths and celebrating personal achievements of themselves and others; both within the school and its wider community.

### **1.16 EQUAL OPPORTUNITY FOR SPECIFIC GROUPS INCLUDING EAL CHILDREN**

Care should be taken to give each child the opportunity to learn about the global community, regardless of race, Religion, language or gender.

### **1.17 PARENTAL INVOLVEMENT**

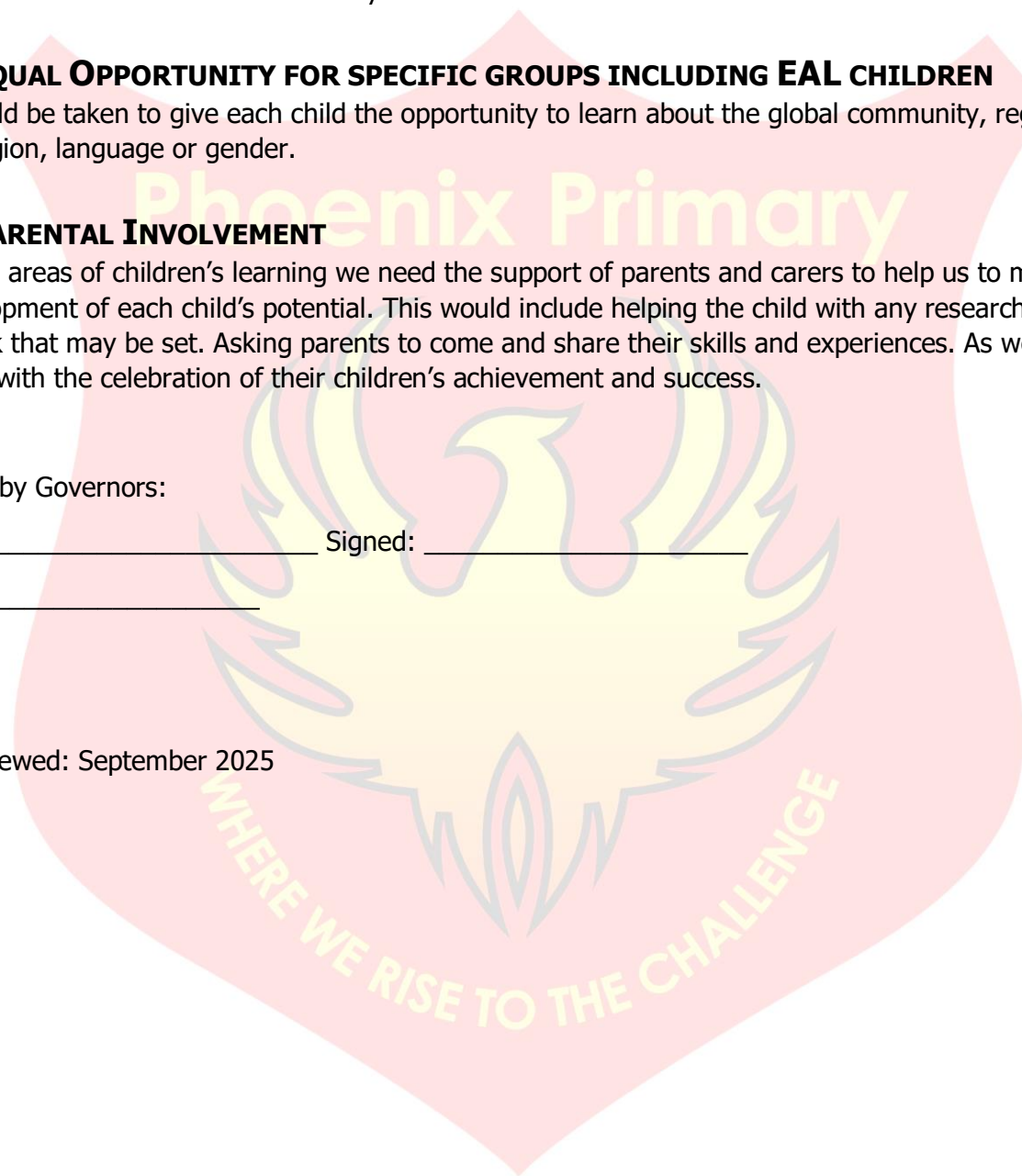
As with all areas of children's learning we need the support of parents and carers to help us to maximise the development of each child's potential. This would include helping the child with any research or homework that may be set. Asking parents to come and share their skills and experiences. As well as joining in with the celebration of their children's achievement and success.

Approved by Governors:

Name: \_\_\_\_\_ Signed: \_\_\_\_\_

Date: \_\_\_\_\_

To be reviewed: September 2025



## 2 APPENDIX ONE – CUSP DT LONG TERM PLAN







### Block A and Block B (Autumn Term)

Year	Block A	Block B
1	<b>Core discipline:</b> Mechanisms <b>Key concept:</b> Sliders and levers How can you make a picture move?	<b>Core discipline:</b> Structures <b>Key concept:</b> Freestanding structures How can you stop a tower from toppling over?
2	<b>Core discipline:</b> Textiles <b>Key concept:</b> Exploring shape using a template How can you repurpose an item of clothing?	<b>Core discipline:</b> Food and Nutrition <b>Key concept:</b> Nutrients and the body What does healthy mean?
3	<b>Core discipline:</b> Textiles <b>Key concept:</b> Stiffening and strengthening fabric How can you make a box out of cloth?	<b>Core discipline:</b> Food and Nutrition <b>Key concept:</b> Individual diets What do we mean by a balanced diet?
4	<b>Core discipline:</b> Food and Nutrition <b>Key concept:</b> Ultra-processed food What's really in your food?	<b>Core discipline:</b> Mechanisms <b>Key concept:</b> Hinges How many ways are there to open a door?
5	<b>Core discipline:</b> Food and Nutrition <b>Key concept:</b> Food choices Why are our diets so different?	<b>Core discipline:</b> Systems <b>Key concept:</b> Using technology to design and control How can we keep ourselves safe on the road?
6	<b>Core discipline:</b> Food and Nutrition <b>Key concept:</b> Multicultural influences on food Can street foods save us?	<b>Core discipline:</b> Mechanisms <b>Key concept:</b> Pulleys and gears - rotary and linear movement How do pulleys and gears let you see the world?

## Block C and Block D (Spring Term)

Year	Block C	Block D
1	<b>Core discipline:</b> Food and Nutrition  <b>Key concept:</b> Exploring food senses How does food affect your senses? CUSP link: Animals, including humans	<b>Core discipline:</b> Understanding Materials  <b>Key concept:</b> Selecting materials Can you build with bread? CUSP link: Everyday materials
2	<b>Core discipline:</b> Mechanisms  <b>Key concept:</b> Axles and wheels Are bigger wheels always better?	<b>Core discipline:</b> Understanding Materials  <b>Key concept:</b> Manipulating materials How can you waterproof a hat? CUSP link: Uses of everyday materials
3	<b>Core discipline:</b> Mechanisms  <b>Key concept:</b> Levers and linkages - mechanical advantage How can you do a lot of work with little effort? CUSP link: Forces and magnets	<b>Core discipline:</b> Food and Nutrition  <b>Key concept:</b> Food as medicine How does food affect your body and mind? CUSP link: Animals, including humans
4	<b>Core discipline:</b> Textiles  <b>Key concept:</b> Fixings and fastenings How do you keep a tea towel from slipping off a hook?	<b>Core discipline:</b> Structures  <b>Key concept:</b> Designing structures using a frame to make them stronger and sturdier Which shapes will give a structure stability?
5	<b>Core discipline:</b> Textiles  <b>Key concept:</b> Durability of fabric Which fabric is ideal for creating a functional and hardwearing lunch bag?	<b>Core discipline:</b> Food and Nutrition  <b>Key concept:</b> Cultural influences on diet What can you learn from different cultures' diets? CUSP link: World countries
6	<b>Core discipline:</b> Food and Nutrition  <b>Key concept:</b> Food and mood Does food affect the way you feel?	<b>Core discipline:</b> Structures  <b>Key concept:</b> Designing structures revisited - combining skills and knowledge How strong is a piece of spaghetti?

## Block E and Block F (Summer Term)

Year	Block E	Block F
1	<b>Core discipline:</b> Textiles <b>Key concept:</b> Joining techniques How can two squares of fabric keep you warm? CUSP link: Hot and cold places	 <b>Core discipline:</b> Food and Nutrition <b>Key concept:</b> Vitamins in food Why are vegetables the best?
2	<b>Core discipline:</b> Food and Nutrition <b>Key concept:</b> Processed food How healthy is your food?	 <b>Core discipline:</b> Structures <b>Key concept:</b> Developing strength in structures How strong is a piece of paper?
3	<b>Core discipline:</b> Systems <b>Key concept:</b> How things are powered How are things powered?	 <b>Core discipline:</b> Structures <b>Key concept:</b> Spanning gaps What makes a bridge strong?
4	<b>Core discipline:</b> Electrical Systems <b>Key concept:</b> Switches and circuits revisited How useful are switches? CUSP link: Electricity	 <b>Core discipline:</b> Food and Nutrition <b>Key concept:</b> Benefits of fresh food Is cheap food always worse for you? CUSP link: Animals, including humans
5	<b>Core discipline:</b> Structures <b>Key concept:</b> Developing structures that are fit for purpose How are frames strengthened, reinforced and made rigid?	 <b>Core discipline:</b> Mechanisms <b>Key concept:</b> Pulleys and gears - transferring rotational force How can you lift a car onto a roof? CUSP link: Forces
6	<b>Core discipline:</b> Electrical Systems <b>Key concept:</b> Complex switches and circuits Can switches perform more than one function? CUSP link: Electricity	 <b>Core discipline:</b> Textiles <b>Key concept:</b> Sustainable materials How can you reduce, recycle, repurpose?