

Camelford Primary School DT & FT Skills Progression

Design Technology & Food Tech. Pathway- ARB

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INTENT:

Design and Technology is an inspiring, rigorous and practical subject. Design and Technology encourages children to learn to think and intervene creatively to solve problems both as individuals and as members of a team. At Camelford Primary, we encourage children to use their creativity and imagination, to explore how products work in order to design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. We aim to, wherever possible, link work to topic themes and offer designs fit for real life purpose. The children are also given opportunities to explore a range of manual and electric machines and processes and are encouraged to become innovators and risk-takers.

IMPLEMENTATION:

Through a variety of creative and practical activities, we teach the knowledge, understanding and skills needed to engage in an iterative process of designing and making. The children design and create products that consider function and purpose. Pupils have autonomy in the design process to feel a sense of individuality and pride upon completion.

Expectations are based on Engagement and Primary Steps for the Design and Technology Subject areas and teachers should ensure the use of differentiation. Planning below makes clear which topics build are being 'built on', as well as which have 'linked' skills.

This scheme of work supports those who are not as confident in the teaching of DT and ensure a progression of skills that should be explicitly taught. The projects are based on the Equals Curriculum and Engagement and Primary Steps statements.

When designing and making, the children are taught to:

Design:

- Have opportunities to explore a range of materials. Learn about material properties and functions to support design.

. Gain understanding on preferences and individuality, in order to choose

. Grow a deep understanding of cause and effect, forces and everyday materials

. Research and range of manual and electronic products to gain a wide knowledge of how products can function and run.

- Use analogue and digital programmes to develop and design and test your ideas and to problem solve.

Make:

- select from and use a wider range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing, as well as chopping and slicing) accurately and safely.

- select from and use a wider range of materials, ingredients and components, including construction materials, textiles and ingredients, according to their functional properties, aesthetic qualities and, where appropriate, taste and smell.

. Have opportunities to take risks in a safe and monitored environment.

. Feel a sense of pride and accomplishment upon completion

Evaluate:

- investigate and analyse a range of existing products.
- Improve and adjust your creation after testing over a number of weeks
- understand how key events and individuals in design and technology have helped shape the world.

Technical knowledge:

- Understand some of the ways that food can be processed and the effect of different cooking practices (including baking and grilling).

. Use a range of buttons and switches as well as processes to gain wider knowledge of processes

Key skills and key knowledge for D and T have been mapped across the school to ensure progression between year groups. The context for the children's work in Design and Technology is also well considered and children learn about real life structures and the purpose of specific examples, as well as developing their skills throughout the programme of study. Design and technology lessons are taught weekly. Some terms focus solely on food Technology, whilst others on Design Technology.

At Camelford Primary School ARB, we work on a 4 year rolling programme – Year 1 starting Sept 2022.

IMPACT:

We ensure the children:

- 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, skills and vocabulary in order to design and make for purpose.
- understand and apply the principles of nutrition and learn how to cook. Children will design and make a range of products.

A good quality finish will be expected in all design and activities made appropriate to the age and ability of the child. Differentiation will be achieved on support given, resources offered and outcome expectations.

Children 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.

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	Year 1			Year 2			Year 3			Year 4		
	Ourselves (12 weeks) Evolution of Man Science Focus	Our School (12 weeks) Our Community, Our World Geog Focus	Weather & Seasons (12 weeks) Environmental Warrior Science Focus	Toys (12 weeks) Invasion & Rebellion History focus	Spring & Growth (12 weeks) Environmental Warrior Science Focus	Creatures great & small (12 weeks) Evolution of Man Science Focus	Colour & Light (12 weeks) Environmental Warrior Science Focus	Communities & Cultures (12 weeks) Our Community , Our World Geog Focus	On the move (12 weeks) Evolution of Man Science Focus	Journeys (12 weeks) Transport & Railways- British Values History Focus	Houses & Homes (12 weeks) Invasion & Rebellion History Focus	Out & About (12 weeks) Transport & Railways- British Values History Focus
A R B	FT: Taste & Texture S1b DT: Photo Frames 2:3.4	DT: Sensory properties of papers & wrappers P4c Containers & Packaging P5c School playground and parks 1:1.2	FT: Sweet & Savory S5b	DT: Moving Toys 2:5.3 Making things work construction S1a Basic Mechanisms P1b, 2b	FT: Bread 2:5.2 Packaging & sandwich snacks 2:3.1/2 Sensory properties of dough & pastry P2c	DT: Moving animals/ monsters 2:3.3 Cutting, sticking & materials S4c & 6c	DT: Designing & Making P3a & 5a Musical Instruments 2:5.1	FT: From the dairy S3b	FT: Eat more fruits & vegetables 1.1.3 First fruits S2a Vegetable Produce S2b	DT: Vehicles 1.2.1 Making things work- battery operated toys S2c	DT: Homes 1:1.4 Physical properties of surfaces S3a Switch operated computer program P3b	FT: Teddy Bears picnic S6b Picnics 1:2.7 Biscuits 2:5.4

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The following documents detail the Engagement Steps and Primary Steps statements and the progression of skills within each of the given topic areas. Each progression of skills document shows expectations for levels Engagement Steps 1-6 and Primary Steps 1-2+.

How should this be used to help plan learning opportunities?

Teachers must ensure that they use the progression of skills to guide their planning, teaching and assessment. They should inform their planning for each child inline with their level in each subject area. However, due to the fact that we have mixed classes at Camelford ARB, teachers must use their professional judgement.

How can this be used by subject leads and SLT?

Subject Leads and SLT should use the progression of skill statements and subject coverage documents to ensure the correct coverage is happening across the school, at the right times, that the areas being taught are relevant (as per the pathway) and that they are pitched to the right level ensuring challenge. The journey of a child in their time at Camelford ARB should be carefully monitored to ensure their learning is progressive and varied.

Engagement Steps 1-6

Cognition & Learning: Exploration Description

This shows whether a pupil can build on their initial reaction to a new stimulus or activity; for example, whether they display more than an involuntary or startled reaction to the activity. Additionally, the pupil may be interested in and curious about the stimulus or activity; for example, they may notice it or reach out to it.

Exploration becomes more established when the pupil is still responsive to the same stimulus or activity when it is presented in different contexts or environments; for example, a different time of day, a different place or with different people.

Exploration is important in identifying which stimuli or activities interest the pupil and motivate them to pay attention and investigate them further, so that they can develop new knowledge and skills.

Cognition & Learning: Realization Description

This shows how the pupil interacts with a new stimulus or activity or discovers a new aspect of a familiar stimulus or activity. They will display behaviours that show they want more control of the stimulus or activity, for example by stopping it or trying to make changes to it. The pupil will often show what familiar adults consider to be 'surprise', 'excitement', 'delight', 'amazement' or 'fear'.

Realisation becomes more established when the pupil uses the newly developed skills or knowledge in new ways and in different contexts or environments. This is important as it can keep the pupil excited in their education and prevents an activity from becoming routine.

Cognition & Learning: Anticipation Description

This shows how much the pupil predicts, expects or associates a stimulus or activity with an event. They may anticipate that a familiar activity is about to start or finish by interpreting cues or prompts such as auditory (what they hear), tactile (what they feel) and visual (what they see).

Anticipation becomes more established when the pupil shows awareness that a familiar activity is about to start or finish, even when cues and prompts are reduced.

Anticipation is important in measuring the pupil's understanding of cause and effect; for example if they do this, then something will happen. This prepares the brain and helps with the pupil's memory and sequencing.

Cognition & Learning: Persistence Description

This shows whether the pupil can sustain their attention in a stimulus or activity for long enough that they can actively try to find out more and interact with it.

Persistence becomes more established when the pupil shows a determined effort to interact with the stimulus or activity. They will do this by showing intentional changes such as changes in their gaze, posture and hand movement.

Persistence is important so that the pupil maintains an activity long enough to develop, reinforce, and apply their skills or knowledge so they can achieve their desired outcome.

Cognition & Learning: Initiation Description

This shows how much, and the different ways, a pupil investigates a stimulus or activity in order to bring about a desired outcome. The pupil will act spontaneously and independently during a familiar activity without waiting for direction.

Initiation becomes more established when the pupil shows they understand how to create an impact on their environment in order to achieve a desired outcome.

Initiation is important to establish how well the pupil is developing independence, which is required for more advanced progression.

Sensory & Physical: Tactile Operation Description

Assessment of Tactile Sensory Operation measures the extent to which a pupil reacts to the sensation and perception of touch.

Sensory & Physical: Olfactory/Gustatory Operation Description

Assessment of Olfactory/Gustatory Sensory Operation measures the extent to which a pupil reacts to the sensation and perception of taste.

Fine Motor Operation Description

Assessment of Fine Motor Physical Operation measures the extent to which a pupil controls the precise movements that use the small muscles of the fingers, toes, wrists, lips and tongue.

Primary Steps: 1-3

Science: Electricity Description

Assessment of Science Electricity measures the extent to which a pupil understands the uses for electricity and basic knowledge on how electricity makes products work.

Science: Everyday Materials Description

Assessment of Science Everyday Materials measures the extent to which a pupil understands the properties and uses of a range of materials.

Science: Properties and Changes of Materials Description

Assessment of Science Properties and Changes of Materials measures the extent to which a pupil understands the properties and uses of a range of materials, including those that have reversible and irreversible change.

Science: States of Matter Description

Assessment of Science States of Matter measures the extent to which a pupil understands how the properties of a range of items

Assessment of PSHE Healthy Eating measures the extent to which a pupil understands how to maintain a balanced diet and healthy lifestyle.

Computing Description

Assessment of Computing measures the extent to which a pupil understands the processes and uses of ICT in everyday life.

*beyond these assessment tools and statements, pupils in ARB would move on to YR1-YR6 statements for assessment found under the same categories on B2 Connecting Steps. We do not currently have pupils in our ARB working close to this level.