Design Technology

Intent, Implementation and Impact Statement

INTENT

St. Andrew's CEVA Primary's Design and technology scheme of work aims to inspire pupils to be innovative and creative thinkers who have an appreciation for the product design cycle through ideation, creation, and evaluation.

We want pupils to develop the confidence to take risks, through drafting design concepts, modelling, and testing and to be reflective learners who evaluate their work and the work of others.

Through our scheme of work, we aim to build an awareness of the impact of design and technology on our lives and encourage pupils to become resourceful, enterprising citizens who will have the skills to contribute to future design advancements.

Our Design and technology scheme of work enables pupils to meet the end of key stage attainment targets in the National curriculum and the aims also align with those in the National curriculum.

EYFS (Reception) units provide opportunities for pupils' to work towards the Development matters statements and the Early Learning Goals.

Children and young people are provided with opportunities to create, experience, and participate in great arts and culture.

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Through our Design and Technology Curriculum, our I-ASPIRE values can be covered and supported through the following:

Independence- children can independently research, explore, generate and develop ideas using existing products as inspiration.

Ambition– Children can take risks in their learning, develop curiosity and to have an enquiring mind about ideas that can be made into a product.

Self-control– Children can use and apply skills taught to create their products.

Perseverance– Using the design– make– evaluate approach of the design process to explore techniques and skills and being reflective about what has been successful and what needs further development. To be able to evaluate what went well with the design and what changes could have been made.

Integrity- Doing the right thing when no-one is watching. Supporting others with collaborative opportunities within Design and Technology, being reflective and supportive.

Responsibility- Being a model citizen, contributing and understanding all actions have consequences. Working collaboratively the design and make process. Pupils will take care of the resources they used and ensure it is used in the correct manner.

Empathy- Understanding the views and beliefs of others. Learning about the work of a range of designers, describing similarities and differences between practices and disciplines and making links to own work. How has this designer created…? What can you learn from…?

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The Design and technology National curriculum outlines the three main stages of the design process:

- Design
- Make
- Evaluate

Each stage of the design process is underpinned by technical knowledge which encompasses the contextual, historical, and technical understanding required for each strand.

Cooking and nutrition has a separate section, with a focus on specific principles, skills and techniques in food, including where food comes from, diet and seasonality.

The National curriculum organises the Design and technology attainment targets under four subheadings:

- Design,
- Make
- Evaluate
- Technical knowledge

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Cooking and nutrition is given a particular focus in the National curriculum and we have made this one of our six key areas that pupils revisit throughout their time at St. Andrew's CEVA Primary School:

- Cooking and nutrition
- Mechanisms/ Mechanical systems
- Structures
- Textiles
- Electrical systems (KS2 only)
- Digital world (KS2 only).

Design and Technology is taught 1 hour weekly. This can be done in a variety of ways:

- Timetabled 1 hour weekly lesson
- DT afternoon every fortnight
- 1 and half day off timetable.

St. Andrew's CEVA Primary's Design and technology scheme has a clear progression of skills and knowledge within these strands and key areas across each year group.

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Our National curriculum overview shows which of our units cover each of the National curriculum attainment targets as well as each of the four strands.

Our Progression of skills shows the skills and knowledge that are taught within each year group and how these skills develop to ensure that attainment targets are securely met by the end of each key stage.

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Through St. Andrew's CEVA Primary Design and technology scheme, pupils respond to design briefs and scenarios that require consideration of the needs of others, developing their skills in the six key areas.

Each of our key areas follows the design process (design, make and evaluate) and has a particular theme and focus from the technical knowledge or cooking and nutrition section of the curriculum.

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The St. Andrew's CEVA Primary scheme is a spiral curriculum, with key areas revisited again and again with increasing complexity, allowing pupils to revisit and build on their previous learning.

Lessons incorporate a range of teaching strategies from independent tasks, paired and group work including practical hands-on, computer-based and inventive tasks.

This variety means that lessons are engaging and appeal to those with a variety of learning styles. Scaffolded guidance is available for every lesson to ensure that lessons can be accessed by all pupils and opportunities to stretch pupils' learning are available when required.

Knowledge organisers for each unit support pupils in building a foundation of factual knowledge by encouraging recall of key facts and vocabulary.

Strong subject knowledge is vital for staff to be able to deliver a highly effective and robust Design and technology curriculum.

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The impact of St. Andrew's CEVA Primary scheme can be constantly monitored through both formative and summative assessment opportunities.

Each lesson includes opportunities for teachers to assess pupils against the learning objectives. Furthermore, each unit has a unit quiz and knowledge catcher which can be used at the start and/ or end of the unit. After the implementation of our Design and technology curriculum, 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.

The expected impact of following the St. Andrew's CEVA Primary Design and technology scheme of work is that children will:

- Understand the functional and aesthetic properties of a range of materials and resources.

- Understand how to use and combine tools to carry out different processes for shaping, decorating, and manufacturing products.

- 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.

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- Understand and apply the principles of healthy eating, diets, and recipes, including key processes, food groups and cooking equipment.

- Have an appreciation for key individuals, inventions, and events in history and of today that impact our world.

- Recognise where our decisions can impact the wider world in terms of community, social and environmental issues.

- Self-evaluate and reflect on learning at different stages and identify areas to improve.

- Meet the end of key stage expectations outlined in the National curriculum for Design and technology.

- Meet the end of key stage expectations outlined in the National curriculum for Computing.

Evidence will be gathered through photographs taken of work throughout the units, followed by a photo of the final product.