Portreath Primary School **Subject Statement 2023-24**

Subject: DT Leader: Emily Tonkin

Quote that guides us:

"All sorts of things can happen when you're open to new ideas and playing around with things" – Stephanie Kwolek

Why is it important to teach DT?

We have devised a curriculum that matches the ambition of the National Curriculum and has 5 key aims that drive our curriculum and DT is very much promotes these 5 aims. We want everyone to be:


a **DEEP THINKER** who is a fluent reader, knowledgeable, creative and that has mastered key skills in range of subjects.


an **EFFECTIVE LEARNER** who demonstrates curiosity and independence, strives to improve and is a problem


solver.


a **CONFIDENT COMMUNICATOR** who is a logophile and bibliophile.


a **HAPPY AND HEALTHY INDIVIDUAL** who is inclusive, celebrates diversity and feels that they belong.


a **PERSON** who **makes a positive difference** to others, the community, the environment and the world.

DT contribute to these in many ways including:

- Encouraging deep **thinkers** who solve real and relevant problems within a variety of contexts
- Providing a motivating context for **effective learners** to discover and harness skills acquired from English, Maths, Science, Art, PSHE and ICT
- Promoting effective and **confident communication** and collaboration with others, building team-working skills and positive social relationships.
- Equipping children with the necessary skills and tools to create **healthy,** functional and quality products which they can see, touch and even taste for themselves; creating a huge sense of pride and accomplishment which helps children to feel **happy** and can also create a sense of belonging as they often create in a team and for others
- Creating empathetic citizens who make a positive difference by being aware of their own and others' needs, wants and values

Creativity and innovation are nurtured through the process of exploring, designing and analysing the world in which we all live. Teaching DT creates an important foundation for later learning and careers. Furthermore, it is important to nurture children's creativity and passion for DT at a young age in order to provide a platform for their futures. Statistics show that over 1 million women now work within the STEM industry in the UK, making up 24% of the workforce. (Source: Stemwomen https://www.stemwomen.com/blog/2021/01/women-in-stem-percentages-of-women-in-stem-statistics), however there is still an overall shortage in students applying for STEM qualifications. It is vital to expose children to all of the possibilities and potential of their future from a young age.

Key Concepts:

As a school, we have identified 7 golden threads that are the key concepts that weave throughout our DT curriculum. They are:

- The Design, Make, Evaluate cycle

- Collaboration
- Solving problems
- Something for someone for some purpose
- Food
- Structures and Mechanisms
- Textiles

These threads start in the EYFS and link the learning in DT together across the school. They help the children to make connections. By considering these threads when planning the EYFS team start to 'plant the seed' of these concepts and prepare the children for their journey in KS1 and 2. As the DT lead, I have worked with the EYFS lead to identify key learning for EYFS to prepare them for the study of DT. The children can develop so many of the key skills needed at a very early age. For example, in EYFS, children begin to create structures with a purpose by collaborating with others and using problem solving. Throughout KS1 and KS2 in DT, children will solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values.

Design

- Making design decisions based on the form their product will take, how their product will function, what task or tasks it will perform and who the product will be for.
- Learning to generate, develop, model, test and communicate ideas through talking, drawing, templates, mock-ups and ICT.

Make

- Selecting from and using a range of tools and equipment to perform practical tasks.
- Selecting from and using a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.

Evaluate

- Exploring and evaluating a range of existing products.
- Evaluating their ideas and products against design criteria.
- Collaborating with others to share feedback.

Curriculum Design

At Portreath School, we use a two-year rolling programme with at least three DT units being covered each year in every class. These units link closely to the topic work in each class. Due to mixed year groups, we have created a long-term plan which ensures that all classes cover the relevant material. All DT units follow the principle of "The Three S's": *Making **something** for **someone** for **some** purpose.* This allows all aspects of the design, make and evaluate cycle to be given equal weight. We use the DT Association's resource *"Projects on a Page"* to support planning. These give a step-by-step guide to the different aspects of DT. These are:

- **Textiles**
- **Food**
- **Structures**
- **Mechanisms (KS1)**
- **Electrical or Mechanical Systems (KS2)**

What we do well as a school:

We have three core elements at the heart of our school: relationships, experiences and learning. DT is a hands-on, experience-based subject which allows children to make their own decisions, solve problems and work practically and collaboratively.

The child-led learning process of DT means children are given opportunities to trial and error their ideas, allowing them to seek solutions independently. This promotes a growth mindset and shows children that mistakes are a necessary part of learning. The design, make, evaluate learning cycle allows children to create a final product which they can not only be proud of, but also consider ways to improve their work. The cross-curricular nature of DT means that units can be linked with topics. This deepens children's curiosity and interest and provides the project they are working on with further context and purpose. Children are able to take pride in the products they produce.

Children are encouraged and taught to work methodically, using their imagination to design and construct their projects to solve real life and relevant problems. They experiment with a variety of resources and techniques to bring their creations to life; taking risks in their learning and sharing their concepts with the rest of the class, in a safe and trusted learning environment. Discussion, investigation, evaluation and teamwork is implemented through effective collaboration, the sharing of ideas and support from peers and adults.

Our Outdoor Learning area gives children the opportunity to make structures from nature, cook food on an open fire and appreciate the environment around them. We encourage children to use materials in a sustainable way. We are a Plastic Free School and work closely with charities such as Surfers Against Sewage. We have a list of key experiences which all children will be able to do whilst at Portreath school. Many of these are linked with the learning which takes place in DT and will help to prepare them for life beyond school. Some of the key experiences include: sewing on a button, cooking a meal and building a den.

Resources

We have a DT area which is stocked with resources. We have recently purchased a whole-school resource kit which is available to all teachers.

Training

Teachers have received a brief training session on implementing the principles of DT into their teaching and planning. Staff meetings and INSET sessions are to be used to give staff confidence in planning and teaching DT. Further information on using the Crofty MAT small steps will also be provided to staff once these are completed.

Action Plan 2023-24

- Develop subject knowledge further by continuing to work with Crofty DT Leaders and through personal research as a member of the DT Association
- Develop use of a range of technology including CAD
- Audit materials
- Refine small steps to ensure they demonstrate a clear progression of skills across the school
- Children's voice-their opinions on the subject and how it could be improved further
- Explore best ways to record and capture the DT projects
- Ensure regular monitoring
- Explore further enrichment opportunities eg working with Gwel-an-Mor