

# DT AT PALACE WOOD PRIMARY

## VISION

At Palace Wood Primary School, we aim to create a dynamic and inspiring environment where learners can become innovators and problem solvers through the exploration of design technology.

Our vision is to equip children with vital skills for the future. From critical thinking and collaboration to practical knowledge of how things work. Through meaningful and purposeful projects, we nurture resilience, curiosity and the confidence to take risks.

Our goal is to help children understand the role of design in the real world and develop as responsible, thoughtful creators and users of technology.

By the time our pupils leave primary school, they will have experienced the full design process, developed a range of practical skills, and gained an appreciation for how DT contributes to their daily lives and wider world.

## RESEARCH, DESIGN, MAKE AND EVALUATE:

At the heart of our DT curriculum is a clear design process. Children are taught to follow the steps of researching, designing, making and evaluating with increasing independence and critical thinking. Through this process, they learn that design is purposeful, thoughtful and adaptable. Children are encouraged to:

- Research – Investigate existing products, user needs and materials.
- Design – Develop ideas through drawing, modelling and ICT.
- Make – Use a wide range of tools and equipment to construct products.
- Evaluate – reflect on their own work and the work of others to make improvements and learn.

## COOKING:

We teach children the importance of a balanced diet and equip them with the practical skills to prepare simple dishes safely and hygienically. As part of our whole-school health and well-being, our children learn to:

- Learn where food comes from and how it is produced.
- Understand the principles of healthy eating.
- Prepare and cook a variety of dishes.

## STRUCTURES:

Children will explore how to build strong, stiff and stable structures using a range of materials and joining techniques. They will investigate real-world structures to inspire their own designs and develop spatial awareness and engineering thinking.

Children will learn to:

- Understand how to make structures stronger and more stable.
- Apply knowledge of mathematics to construction.
- Evaluate existing structures and improve their own designs accordingly.

## TEXTILES:

Children gain experience working with a variety of fabrics and materials to design and create products including decorative items. They learn a wide range of joining techniques and how to select appropriate materials for a purpose with justification.

Children will learn to:

- Develop skills in measuring, cutting, joining and finishing.
- Explore texture, colour and function of products.
- Evaluate textile products for design, usability and appeal.

## MECHANICS:

Children investigate how things move and apply this knowledge to create models with levers, slider, wheels and axles. As they progress, they explore more complex mechanisms such as pulleys and gears, enabling them to design functional products that meet specific needs.

Children will learn to:

- Explore and apply mechanical systems to enhance movement or control.
- Understand how different mechanisms work in everyday objects.
- Use mechanisms to solve problems creatively.

## ELECTRICAL:

In Key Stage 2, children begin to explore simple electrical circuits to design products that light up, make noise or move. They build understanding of how electricity can bring function and interactivity to design.

Children will learn to:

- Construct and control simple circuits incorporating switches, buzzers, bulbs and motors.
- Apply their knowledge to solve practical problems through powered products.
- Develop safe and responsible attitudes toward working with electrical components.