



NEWFIELD PARK
PRIMARY ACADEMY

Principal: Mr S Payne

Chief Executive Officer: Sir Mark Grundy MSc FRSA

Email: info@nppa.shirelandcat.net

Website: www.newfieldpark.co.uk

Whittingham Rd, Halesowen,
West Midlands, B63 3TP
Tel: 01384 818 640

Design and Technology Guidance



Our Vision

Our vision and values are at the core of everything we do. They underpin our teaching and learning, and provide an environment which prepares our pupils as confident, happy citizens.

Our school aims are:-

To Provide a safe and stimulating school environment.
To Promote high standards of teaching and learning.
To Value and Develop all members of the school community

Curriculum

The school's curriculum is designed to meet the needs of its pupils, and its major aims are to provide all children with an education which will help them to:

Enable all to achieve their potential, celebrating success within a caring environment.

- Raise levels of attainment for all pupils, enabling them to achieve their personal best.
- Foster a love of learning.
- Develop confident, disciplined and enquiring learners, able to make informed choices.
- Develop an increasing responsibility in pupils for their own life-long learning.
- Foster self-esteem and personal responsibility, linked to respect for the needs and feelings of others.
- Facilitate considerate and positive relationships between all members of the school community.
- Ensure equal and inclusive opportunities in relation to gender, race, class, special needs and belief.
- Value and respect all cultures.
- Provide a safe and happy work place.
- Promote a thoughtful attitude towards the immediate and wider environment.

Philosophy/Rationale.

Design and Technology is an intricate part of our day to day lives and a valued part of the curriculum at Newfield Park Primary School. It helps children to prepare for a rapidly changing technological world. The children gain practical skills and a knowledge and understanding of aesthetic, social and environmental issues that enables them to become well-informed consumers, comparing products and developing their understanding of how everyday products are designed and made. They identify needs and opportunities and respond by developing ideas, leading to creating products of their own. The children are encouraged to think and learn creatively to solve problems as individuals and as members of a team. They are also given opportunities to make positive changes, reflecting upon and evaluate their own and others work, encouraging them to become innovators and risk takers.



Aims

In Design and Technology our aims at Newfield Park Primary School are:

- To develop and nurture creative thinking and innovation through identifying needs, designing, making and evaluating, allowing children to discuss opinions and ideas and evaluate their own and others work.
- To enable children to select and use safely and effectively appropriate tools and techniques.
- To develop children's understanding of the ways in which people have designed and made products past and present and develop knowledge, skills and understanding in order to make products to suit the needs of the user.
- To follow safe procedures when using equipment.
- To develop children's understanding of technological processes and the contribution to our society.
- To develop ICT skills along with an understanding of mechanical and electrical systems.
- To understand and apply the principles of nutrition when learning to prepare and cook food.
- To develop their resilience, when faced with challenges, learning from mistakes and problems with their design and making, acknowledging the importance of these.
- To learn curriculum skills and knowledge and then adapt these to meet a given audience and purpose.

Planning for Design and Technology

At Newfield Park Primary School, teachers plan for Design and Technology using the 2014 National Curriculum.

Teachers plan through a topic-based curriculum ensuring key skills are taught across the year. Each year group complete Medium-Term plans, giving details of skill coverage each term, ensuring appropriate balance and progression. They focus on the following-

- to master practical skills,
- to design, make, evaluate and improve
- to take inspiration from design throughout history.

Each year, skills are developed across the following areas:-

- Food
- Textiles (including some objectives from Art)
- Structures
- Computing
- Mechanics
- Electricals and Electronics

Short term weekly plans show specific skills to be taught which build on prior learning.



Early Years Foundation Stage will use guidance from the EYFS framework- Exploring Media and Materials and Being Imaginative.

Assessment, Recording and Reporting

Informal, on-going assessment of learning outcomes will be used to determine pupil understanding and future learning. Teachers will report back to children on their progress verbally and via marking of books, including sharing next steps and gap tasks. Children will also be given the opportunity to self and peer assess. Termly, teachers will use school assessment sheets based on the 2014 Curriculum in order to record children's progress, reporting whether they are developing, secure or exceeding National expectations.

In Early Years Foundation Stage, children are assessed through careful observations and adult led activities. Teachers use the Foundation Stage Profile to monitor progress of skills relating to Design and Technology using the Early Learning Goals within

Cross-Curricular Links

English: Design and Technology provides valuable opportunities to reinforce reading, writing and speaking and listening skills. It requires children to articulate their ideas and justify their views when designing, making and evaluating. Children use writing skills to label their designs and write evaluations amongst other things.

Mathematics: In Design and Technology, children are given the opportunity to use and apply their mathematical skills. They learn how to measure and weigh accurately. They apply their knowledge of fractions and percentages to describe quantities and calculate proportions. They collect, present and interpret data. Learning about measurements, size and shape can also be extended.

Science: Links can be made with the Design and Technology curriculum and the Science curriculum in the areas of electricals and electronics, food, construction and materials.

Children work with and discuss the properties of a range of materials. They develop their understanding of electrical circuits. Children also work with different food groups and discuss its impact on our bodies and health.

PSHE and Citizenship: Children are encouraged in Design and Technology to have a sense of responsibility in following safe procedures when using and transporting tools and equipment and making things. They also learn about personal hygiene, the prevention of bacteria and the spread of disease and healthy eating whilst carrying out work with food. In addition to this, they also make food from different cultures and relating to different celebrations. The children are encouraged to listen to and value others views and opinions.



Computing: Computing skills link to the Design and Technology curriculum. Children use devices to look at past and present designs and model their own designs. They are given the opportunity to use laptops and i-pads to design and control.

Art: There are close links between the Design and Technology and the Art curriculum. This is seen when using different tools, materials and design techniques. Children have the opportunity to use their creative knowledge, skills and understanding through the use of pattern, texture and colour. They apply aesthetic enhancements to their designs and products.

History: Each unit of work begins by looking and comparing products from the past and present. They develop their understanding of chronology and learn about inventors.

Inclusion in Design and Technology

At Newfield Park we believe every child has an equal right to a rounded education that allows them to achieve their full potential. All pupils, regardless of ability or background, should have the opportunity to fully develop their capabilities. We recognise that some of our children may have more than one area of significant need and that teaching and learning will need to be skilfully adapted to meet those needs. This may be accomplished by:

- Planning lessons to ensure that all tasks can be appropriately scaffolded or differentiated to accommodate children with SEND, ensuring that children with SEND can access the same, or similar, tasks as the rest of the class, in line with the curriculum.
- Using a wide range of Wave 1 teaching strategies – this may involve the use of additional equipment, thinking time, pre-teaching, using a study buddy, providing writing frames, using coloured overlays/print, breaking instructions down into chunks, visual timetables, setting clear goals or building relationships.
- Making reasonable adjustments so that pupils with physical difficulties can access any outdoor learning activities.
- Translating instructions and tasks as appropriate to accommodate children who have English as an additional language.
- Accounting for the needs of more able and gifted children by making tasks more challenging, appealing to their problem solving, reasoning and critical thinking skills and creating appropriate extension activities.

Pupil Premium

Newfield Park is committed to addressing the additional needs of children who may come from disadvantaged backgrounds or who receive additional Pupil Premium funding. Staff understand the importance of quality teaching for all, identifying potential barriers for



learning and exploring varied teaching methods and interventions to achieve the best outcomes.

Staff regularly use data to track and monitor progress and seek to engage parents in all areas of their child's learning. Strategies at the core of our practice include collaborative learning, high quality feedback, metacognition techniques, raising aspiration and the use of digital technologies.

Health and Safety

All tasks will be planned in line with the School's Health and Safety Policy, including the use of tools and equipment. When using ICT in Design and Technology, staff will ensure children adhere to the rules and expectations as outlined in the E-Safety policy.

Safeguarding

Newfield Park is committed to providing an environment where all stakeholders feel safe. Children are encouraged at all times to share any worries and concerns that they may have and know who to approach if they feel unsafe. Through varied teaching and learning experiences children learn how to keep themselves safe as part of our broad and balanced curriculum. If during the course of a lesson, the teacher becomes aware of any child protection concern, or a child makes a disclosure of such a concern, they will

Immediately log this on the CPOMS system and follow the school's wider safeguarding policy.

Resources

General resources are kept in a central location which can be accessed by all staff. Some resources will be locked away, to ensure the safety of pupils and teachers will sign resources in and out. The subject leader will regularly audit and order resources as required. It is the responsibility of each class teacher to identify additional resource needs in relation to topics.

Monitoring and Review

An action plan will be completed by the subject leader at the beginning of each year. Design and Technology will be monitored each year through book and planning trawls and pupil interviews. Findings will be reported back to staff. Design and Technology will be reviewed at the end of each year.

Roles of the Subject Leader

The Subject Leader is responsible for monitoring the planning, teaching and assessing of Design and Technology across the whole school. An audit of resources will take place and



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resources ordered where appropriate. The subject leader will support colleagues where needed to develop subject knowledge and understanding. Policies and action plans will be updated by the subject leader.