

SINCLAIR HOUSE SCHOOL
DESIGN & TECHNOLOGY POLICY & PROCEDURES

This policy, which applies to the whole Prep school inclusive of the Early Years Foundation Stage, is in support of the health and safety policy and the individual health and safety assessments. This policy is publicly available on the school's website. On request a copy may be obtained from the school's office.

Aims and objectives

Imagine a school where Design and Technology prepares children to take part in the development of tomorrow's rapidly changing world. Creative thinking encourages children to make positive changes to their quality of life. The subject encourages children to become autonomous and creative problem-solvers, both as individuals and as part of a team. It enables them to identify needs and opportunities and to respond by developing ideas and eventually making products and systems. This is how Design and Technology is taught at Sinclair House.

Through the study of Design and Technology they combine practical skills with an understanding of aesthetic, social and environmental issues, as well as functions and industrial practices. This allows them to reflect on, and evaluate, present and past Design and Technology, its uses and its impacts. Design and Technology helps all children to become discriminating and informed consumers and potential innovators.

The Aims of Design and Technology

- To develop imaginative thinking in children and to enable them to talk about what they like and dislike when designing and making;
- To enable children to talk about how things work, and to draw and model their ideas;
- To encourage children to select appropriate tools and techniques for making a product, whilst following safe procedures;
- To explore attitudes towards the made world and how we live and work within it;
- To develop an understanding of technological processes, products, and their manufacture, and their contribution to our society;
- To foster enjoyment, satisfaction and purpose in designing and making.

Teaching and learning style

Design and Technology takes place during Art/Design and Technology lessons for each class. Sinclair House uses a variety of teaching and learning styles in Design and Technology lessons. The Principal's aim is to develop children's knowledge, skills and understanding in Design and Technology.

Teachers ensure that the children apply their knowledge and understanding when designing and developing ideas, planning and making products and then evaluating them. We do this through a mixture of whole-class teaching and individual/group activities.

Within lessons, we give children the opportunity both to work on their own and to collaborate with others, listening to other children's ideas and treating these with respect. Children critically evaluate existing products, their own work and that of others. They have the opportunity to use a wide range of materials and resources, including ICT.

In all classes there are children of differing ability. We recognise this fact and provide suitable learning opportunities for all children by matching the challenge of the task to the ability of the child. We achieve this through a range of strategies:

- Setting common tasks that are open-ended and can have a variety of results;
- Grouping children by ability and setting differentiated tasks for each group;
- Providing a range of challenges through the provision of different resources;

- Using additional adults to support the work of individual children or small groups.

Design and Technology curriculum planning

Design and Technology is a foundation subject in the National Curriculum. The Independent Curriculum informs Long and Medium Term planning. Design and Technology is delivered as part of the Art, Design and Technology programmes of study during a one hour Design Technology lesson a week for years 2-6 and incorporated into Art and Design lessons for lower years. We also aim to incorporate aspects of Design and Technology in other curriculum areas, such as Science. Our school uses the national scheme of work and the Independent Curriculum as the basis for its curriculum planning in Design and Technology. We have adapted the scheme to the local circumstances of our school in that we use the local environment as the starting point for some aspects of our work.

We carry out the curriculum planning in Design and Technology in three phases: long-term, medium-term and short-term. The long-term plan maps out the projects covered in each term during the key stage. Our medium-term plans, which we have adopted from the national scheme, give details of each project per term. They identify learning objectives and outcomes for each project and ensure an appropriate balance and distribution of work across each term.

Class teachers complete a daily plan for each Design and Technology lesson. These list the specific learning objectives for each lesson and detail how the lessons are to be taught. The class teacher keeps these individual plans, and the class teacher and subject leader often discuss them on an informal basis.

We plan the activities in Design and Technology so that they build upon the prior learning of the children. We give children of all abilities the opportunity to develop their skills, knowledge and understanding and we also build planned progression into the scheme of work, so that the children are increasingly challenged as they move through the school.

The Early Years Foundation Stage (EYFS)

Sinclair House School Early Years Foundation Stage follows the Montessori philosophy and methodology together with the document "Development Matters in the Early Years Foundation Stage" to inform planning in the Nursery classes. The Reception Class follows the 2017 Statutory Framework for the Early Years Foundation Stage.

To appreciate the approach in our Montessori Nursery please observe the pupils in this area of the school and consult the EYFS Policy, the "*Statutory Framework for the Early Years Foundation Stage*" (DfE: April 2017) and our internal document *Montessori Provision EYFS Links*.

We encourage the development of skills, knowledge and understanding that help Reception pupils make sense of their world as an integral part of the school's work. As the Reception class is part of the Foundation Stage of the National Curriculum, we relate the development of the pupils' knowledge and understanding of the world to the objectives set out in the Early Learning Goals. These underpin the curriculum planning for pupils aged three to five. This learning forms the foundations for later work in Design and Technology. These early experiences include asking questions about how things work, investigating and using a variety of construction kits, materials, tools and products, developing making skills and handling appropriate tools and construction material safely and with increasing control.

The EYFS covers Design and Technology topics through the specific learning area of Expressive Arts and Design and the corresponding learning goals "children safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function." and "Children use what they have learnt about media and materials in original ways, thinking about uses and purposes." Spontaneous learning is provided through opportunities, both indoor and outdoor, for children to explore accessible materials and use their skills and explore concepts and ideas through their representations. Reusable resources such as Lego and sandpits are

available both in the classrooms and on the playgrounds for further spontaneous learning. Structured DT lessons are planned where students construct masks and learn basic cutting skills in cooking for example.

Contribution of Design and Technology to teaching in other curriculum areas

English

Design and Technology contributes to the teaching of English in our school by providing valuable opportunities to learn new key words and their meanings often associated with industry. Discussion, drama and role-play are important ways that we now employ for the children to develop an understanding that people have different views about Design and Technology. The evaluation of products requires children to articulate their ideas and to compare and contrast their views with those of other people. Through discussion children learn to justify their own views and clarify their design ideas.

Information and communication technology (ICT)

We use ICT to support Design and Technology teaching when appropriate. Children use software to enhance their skills in designing and making, and use draw-and-paint programs to model ideas. The children also use ICT to collect information and to present their designs through draw-and-paint programs. Upper school use I.C.T to produce research and analysis of existing products.

Numeracy

In Design and Technology, there are many opportunities for children to apply their mathematical skills through choosing and using appropriate ways of calculating measurements and distances. They learn how to check the results of calculations for reasonableness and learn how to use an appropriate degree of accuracy for different contexts. Children learn to measure and use equipment correctly. They will learn about size and shape, and make practical use of their mathematical knowledge, in order to be creative and practical in their designs and modeling.

Personal, social and health education (PSHE) and citizenship

Design and Technology contributes to the teaching of personal, social and health education and citizenship. We encourage the children to develop a sense of responsibility in following safe procedures when making things. They also learn about health and healthy diets. Their work encourages them to be responsible and to set targets to meet deadlines, and they also learn through their understanding of personal hygiene, how to prevent germs from spreading when working with food.

Spiritual, moral, social and cultural development

The teaching of Design and Technology offers opportunities to support the social development of our children through the way we expect them to work with each others in lessons. Our groupings allow children to work together, and give them the chance to discuss their ideas and feelings about their own work and the work of others. Through their collaborative and co-operative work across a range of activities and experiences in Design and Technology, the children develop respect for the abilities of other children and a better understanding of themselves. They also develop a respect for the environment, for their own health and safety and for that of others. They develop their cultural awareness and understanding, and they learn to appreciate the value of differences and similarities. A variety of experiences will teach them to appreciate that all people are equally important, and that the needs of individuals are not the same as the needs of groups.

Teaching Design and Technology to children with special educational needs

At our school we teach Design and Technology to all children, whatever their ability. Design and Technology forms part of the school curriculum policy to provide a broad and balanced education to all children. Through our Design and Technology teaching we provide learning opportunities that enable all children to make progress. We do this by setting suitable learning challenges and responding to each child's different needs.

When progress falls significantly outside the expected range, the child may have special educational needs. Our assessment process looks at a range of factors – classroom organisation, teaching materials, teaching style and

differentiation – so that we can take some additional or different action to enable the child to learn more effectively. This ensures that our teaching is matched to the child's needs.

Intervention through the graduated approach will lead to the creation of an Individual Learning Plan (ILP) for children with special educational needs. The ILP may include, as appropriate, specific targets relating to Design and Technology.

We enable children to have access to the full range of activities involved in learning Design and Technology. Where children are to participate in activities outside the classroom, for example, a museum or factory trip, we carry out a risk assessment prior to the activity, to ensure that the activity is safe and appropriate for all children. According to OFSTED, pupils with special educational needs make better progress in D&T than in most other subjects. This is because designing and making usable products gives pupils a real sense of achievement. They benefit from experiencing their own progress and taking responsibility for their own learning. They enjoy the practical application of their ideas. Plus, their personal engagement with the task improves attention span, patience, persistence and commitment. All of which means special needs pupils can achieve results that compare or even exceed their peers. Design and Technology offers these pupils the chance to experience achievement at a level that may seldom occur elsewhere in their school life. Design and Technology is a popular and valuable subject for pupils with special educational needs. Knowledge and understanding is drawn from across the curriculum and helps to develop and enable numeracy, literacy and communication skills that can be applied in practical ways. This consolidates skills from other lessons and reinforces learning with positive outcomes. A broad spectrum of the D&T curriculum should be planned and delivered in order to accommodate and challenge pupils of all abilities. It may be necessary to provide specialist equipment, adapt room layouts, utilise adult helpers and allow additional time for tasks.

To make design and technology lessons inclusive, teachers need to anticipate what barriers to taking part and learning particular activities, lessons or a series of lessons may pose for students with particular SEN and/or disabilities. So in their planning teachers will consider ways of minimising or reducing those barriers so that all students can fully take part and learn. In some activities, students with SEN and/or disabilities will be able to take part in the same way as their peers. In others, some modifications or adjustments will need to be made to include everyone. For some activities, you may need to provide a 'parallel' activity for students with SEN and/or disabilities, so that they can work towards the same lesson objectives as their peers, but in a different way – e.g. using a computer simulation of a process rather than manipulating equipment. Occasionally, students with SEN and/or disabilities will have to work on different activities, or towards different objectives, from their peers.

Assessment and recording

We assess the children's work in Design and Technology while observing them working during lessons. Teachers record the progress made by children against the learning objectives for their lessons. At the end of a unit of work, we make a judgement against National Curriculum 'I can...' statements, giving them a grade in terms of their attainment and effort. This is communicated to parents in the child's Academic Assessment at the end of the Christmas Term, Easter Term and Summer Term, along with longer reports at the end of the Christmas and Summer Terms.

When assessing students, you need to plan carefully to give students with SEN and/or disabilities every opportunity to demonstrate what they know and are able to do, using alternative means where necessary. In assessment: "Pupils who are unable to use tools will be unable to achieve certain aspects of the attainment target. When a judgement against level descriptions is required, assessment of progress should either discount aspects that relate to the use of tools or indicate the levels of support that were necessary to complete this work."

At Sinclair House we pass these assessments on to the next teacher at the end of each year. The teacher records the level that each child has reached, and then uses this information to plan future work. This method of recording also enables the teacher to make an annual assessment of progress for each child, as part of the child's

annual report to parents. When children move to new schools (either at the end of Year 6, 8 or earlier) we pass each child's records to the receiving schools. Children are encouraged to assess and evaluate both their own work and that of other children. This helps them to appreciate how they can improve their performance, and what their targets should be for the future. This demonstrates what the expected level of achievement is in art and design in each year of the school

Resources

Sinclair House has a wide range of resources to support the teaching of Design and Technology across the school. Classrooms have a range of basic resources, with the more specialised equipment being kept in the Design and Technology store. This room is accessible to children only under adult supervision.

Equal Opportunities (please refer further to our Single Equalities policy)

We believe that every child should have the opportunity to achieve the highest possible standards. We ensure that all children, irrespective of their ethnicity, attainment and ability, age, disability, gender or background, have equality of access to learning. The curriculum we offer at Sinclair House encourages children to develop positive attitudes about themselves as well as to people who are different from themselves. It encourages children to empathise with others and to begin to develop the skills of critical thinking. We recognise that children have different learning styles, making appropriate provision within the curriculum to ensure each child receives the widest possible opportunity to develop their skills and abilities. We ensure that children learning English as an additional language have full access to the curriculum and are supported in their learning.

Health and safety

The general teaching requirement for health and safety applies in this subject. We teach children how to follow proper procedures for food safety and hygiene.

Monitoring and review

The monitoring of the standards of children's work and of the quality of teaching in Design and Technology is the responsibility of the Design and Technology subject leader. The work of the subject leader also involves supporting colleagues in the teaching of Design and Technology, being informed about current developments in the subject, and providing a strategic lead and direction for the subject in the school.

The Design and Technology subject leader gives the Principal an annual report in which they evaluate the strengths and weaknesses in the subject and indicates areas for further improvement. The Design and Technology subject leader has specially-allocated, regular management time in order to review evidence of the children's work and undertake lesson observations of Design and Technology teaching across Sinclair House.

Signed:



Mrs. Carlotta T.M. O'Sullivan

Principal

Date: 19th January 2019

Review Date: January 2020