



LONGSTONE SCHOOL

TECHNOLOGY & DESIGN POLICY

ARTICLE 28

“Every child has the right to an education.”

REVIEWED: June 2022



OVERALL AIMS OF THE SCHOOL

It is intended that the teaching of Technology and Design should comply with the general aims of the school. These are:-

1. To acquire basic computational skills and to gain some understanding of their application in everyday situations (**Article 29 Develop Talents and Abilities**).
2. To encourage pupils to communicate clearly and confidently in ways which are appropriate to situation and purpose (**Article 12 Right to an Opinion**).
3. To encourage the acquisition of sufficient control of self and tools, equipment etc, to be able to use technology and design as a means of expression and a source of enjoyment (**Article 31 Right to Rest and Play**).
4. To fit our pupils to cope competently and efficiently in the outside world by developing skills and abilities to the highest possible level (**Article 29 Develop Talents and Abilities**).

AIMS OF THE TECHNOLOGY AND DESIGN DEPARTMENT

1. To develop safety awareness so that pupils maintain a safe and organised working environment, and adopt safe working practices when using hand tools, machines and equipment. They should be aware of potential hazards in a working environment and know the appropriate actions to take to avoid risks (**Article 32 Protection from Harmful Work**).
2. To develop an appreciation that the use and manufacture of products can have social, economic and environmental implications (**Article 28 Right to an Education**).
3. To develop and use a variety of communication skills, including ICT, to obtain, record, present and process information (**Article 29 Develop Talents and Abilities**).
4. To develop an understanding of designing in order that the pupils acquire the ability to be critical of products/systems that they would use, make or purchase (**Article 13 Right to find out things**).
5. To develop the ability to be selective in their choice of appropriate materials for a particular task, taking account of physical and aesthetic properties (**Article 29 Protect the Environment**).
6. To develop awareness that energy and control may play a significant part in an artefact they produce (**Article 29 Protect the Environment**).

DIFFERENTIATION

It is school policy that Technology and Design is offered to pupils regardless of gender. To ensure the successful implementation of this programme, the Technology and Design department uses the following strategies for differentiation ([Article 29 Develop Talents and Abilities](#)).

DIFFERENTIATION BY OUTCOME

The class group may be given a set activity therefore engaging the pupils in the same activity. Different levels of pupils' ability and motivation will result in various levels of attainment ([Article 3 Best Interests of the Child](#)).

DIFFERENTIATION BY TASK

While covering the breadth of the subject as set out in the programme of study, the teacher will select materials from the programme appropriate to the levels at which the pupils are working. Individual and group work will be set with general supervision and individual help as required by the teacher, ([Article 12 Right to an Opinion](#), [Article 13 Right to find out things](#)).

Pupils are also encouraged to help each other in group situations in order to develop co-operative learning ([Article 23 Right to Special Education](#), [Article 28 Right to an Education](#)).

CO-ORDINATION OF TECHNOLOGY AND DESIGN WITH THE WHOLE SCHOOL CURRICULUM

While pupils have the opportunity to relate technology and design activities to everyday life, it is important that they link activities with other areas of the school curriculum. They should have the opportunity to integrate Technology and Design with skills, knowledge and understanding previously learnt in other subjects ie. Art and Design, Science and Mathematics.

Within Junior school, technology will generally be delivered through other subjects and themes. This approach will allow pupils to develop skills in problem solving, design, construction and evaluation ([Article 29 Develop Talents and Abilities](#)).

CONTINUITY AND PROGRESSION

Throughout the programme of study, Technology and Design activities aim to integrate the elements of communication skills, designing, materials & components and energy & control. Thus presenting opportunities for designing through a range of contexts which enables pupils to manipulate a variety of materials, and where appropriate, to use energy to drive and control the products they have designed. An awareness of Social, Economic, CIEAG, STEM and

Environmental factors will be developed through out the subject and through the ethos of Rights Respecting School. (Article 28 Right to an Education).

In all their work, pupils should be aware of the importance of safety and should be introduced to safe working practices particularly when using machine tools and equipment (Article 32 Protection from Harmful Work).

CLASSROOM ORGANISATION

In practical situations it is an important element of policy that a safe and organised working environment is maintained (Article 32 Protection from Harmful Work). The pupils should be aware that this is partly their responsibility, by adopting safe working practices.

ASSESSMENT

The achievement of pupils will be monitored by continuous assessment through:

1. Practical ability in completing a task.
2. Systematic observation by the teacher.
3. Pupil evaluation of his/her own work.
4. Presentation of pupils' work.

(Article 28 Right to an Education, Article 29 Develop Talents and Abilities).

KNOWLEDGE, UNDERSTANDING and SKILLS

Pupils will have the opportunities to develop creative thinking and problem solving skills through (Article 29 Develop Talents and Abilities):

1. Design – identifying problems; investigating, generating, developing, modelling and evaluating design proposals; giving consideration to form, function and safety;
2. Communication – use of free-hand sketching and formal drawing techniques and ICT tools (including 3D modelling);
3. Manufacturing – selecting and using materials fit for purpose; safe use of a range of tools and processes appropriate to materials, demonstrating accuracy and quality of outcome;
4. Control – incorporate control systems, such as mechanical, electronic or computer-based, in products and understand how these can be employed to achieve desired effects.

RIGHTS RESPECTING SCHOOL

Pupils should appreciate that manufacturing processes may give rise to conflicts between individuals, society and the environment. However, technology and design will help to develop self respect and a respect for others and their possessions.

Pupils should appreciate that in the past and in other cultures, people have engaged in similar design activities and that these activities have often resulted in different outcomes than those realised in our society (Article 29 Respect other People's Rights, Article 30 Right to enjoy your own culture).

Many of the skills obtained through the subject will be of benefit to the pupils in the world of work. Technology and Design will help them develop to their full potential and to make a contribution to society, whether in their chosen career, personal and family life, or social activities, ([Article 28 Right to an Education](#), [Article 29 Develop Talents and Abilities](#)).

CROSS CURRICULAR THEMES

Communication:

Pupils will have the opportunity to communicate with a number of audiences i.e. their peers, staff and other groups using various means i.e. Talking & Listening, Writing and Drawing ([Article 23 Right to Special Education](#)).

Using Mathematics:

Pupils will gain some knowledge of the cost of materials for products. They will also be encouraged to make value judgements. Is it worth it? Could I do better for less cost? Use of measurement, templates and general calculations using the four basic rules of maths will be used where appropriate ([Article 28 Right to an Education](#)).

Using ICT:

Pupils will be encouraged to use information Technology where appropriate in communications, information handling and controlling products or systems ([Article 28 Right to an Education](#)).

RESOURCES

The Technology and Design department consists of two main rooms, a Planning Room and a Manufacturing Room. The Planning room has 5 C2K machines linked to the main school system with the opportunity to link in extra laptops. Pupils use this clean dust free environment for drawing, written work both of which may be done on the computers or not.

The Manufacturing Room is equipped with appropriate machine and hand tools which allow pupils to work with various materials.

The ICT room is also used on occasions when whole class sessions are required on the C2K system.

EVALUATION

Units of work are revised periodically with new ideas tried out. Some work well, some require alteration and some have been found to be unsuitable ([Article 12 Right to an Opinion](#), [Article 13 Right to find out things](#) [Article 23 Right to Special Education](#)).

Policy to be reviewed June 2022.

***PLEASE REFER TO - TD Covid Planning Addendum (August 20)**

