Aims:

- Develop and understanding of technologies and their impact on society – in the past, present and future
- Apply knowledge, understanding and practical skills to design and create products, processes and solutions that meet needs in play, work and daily life
- Gain the confidence and skills to embrace and use technologies now and in the future
- Evaluate technological processes and products critically and constructively, taking account of cultural, ethical environmental and economic factors

Rationale:

Technologies is a discipline which will enable our pupils to be skilled and knowledgeable users of technologies and be ready to embrace further developments in the future.

Audience:

All staff

Quality Indicators:

2.2, 2.3, 2.7, 3.3

Principles for Curriculum Design

Challenge and enjoyment

- Set learners challenging goals
- Make learners think hard about their learning
- Ensure that learning is active and engaging to motivate all learners

Breadth

- Use a variety of contexts through which to develop and demonstrate learning
- Give all pupils the opportunity to be involved in all aspects of school life

Progression

- Ensure that all learners have the opportunity to achieve appropriate success
- Ensure that all learners have the opportunity to share and celebrate their achievements
- Share expectations and standards with learners
- Review and evaluate learners' progress
- Provide timely, accurate verbal and written feedback on their learning

Depth

- Give learners the opportunity to develop and apply greater intellectual rigour
- Give pupils the opportunity to develop secure understanding

Personalisation and choice

- Take account of their prior learning
- Ensure that all learners have ownership of their learning
- Take account of different learning styles

Coherence

- Help learners see the link between different aspects of learning
- Provide opportunities for learners to transfer and apply learning in different contexts

Relevance

- Ensure learners understand the purpose of the activity
- Make links with learners experiences, learning and interests within and beyond the school

Experiences and Outcomes Overview

The technologies framework has six organisers, namely:

- technological developments in society
- ICT to enhance learning
- business
- computing science
- food and textiles
- craft, design, engineering and graphics.

The final four organisers are contexts for developing technological skills and knowledge.

These organisers recognise the special contribution made by each context for learning, whilst enabling teachers to plan opportunities to reflect individual and local needs. The important purposes of the technologies depend upon effective interdisciplinary working through connections across and between subject boundaries. It is important that teachers do not feel constrained by the organisers but view them as opportunities for children and young people to experience the differing contexts for learning.

Learning Experiences

The experiences and outcomes are intended to tap into pupils' natural inventiveness and their desire to create and work in practical ways. They act as a motivation for progressively developing skills, knowledge, understanding and attitudes, and so maximise achievement. Effective learning and teaching will draw upon a wide variety of approaches to enrich the experience of pupils, particularly through collaborative and independent learning.

Proficiency in ICT is an ideal vehicle for shared learning between and amongst pupils and teachers. Many teachers may need to build their own knowledge and confidence, often learning with and from children and young people, in this area of continually evolving developments.

Well-designed practical activities in the technologies offer pupils opportunities to develop:

- curiosity and problem solving skills, a capacity to work with others and take initiative
- planning and organisational skills in a range of contexts
- creativity and innovation, for example though ICT and computer aided design and manufacturing approaches
- skills in using tools, equipment, software and materials
- skills in collaborating, leading and interacting with others
- critical thinking through exploration and discovery within a range of learning contexts
- discussion and debate
- searching and retrieving information to inform thinking within diverse learning contexts
- making connections between specialist skills developed within learning and skills for work
- evaluating products, systems and services
- presentation skills

The school has adopted the use of mobile devices (Apple iPad 2) as a tool to support learning and to prepare our pupils for the challenges of rapidly changing digital technologies. Although these are currently being used predominately in Primary 7, they are available for use across the school with all year groups.

Contexts for Learning

Technologies are connected strongly with all other areas of the curriculum, through extending and applying the specialist knowledge and understanding developed in the Sciences, through the creative use of technology in the Expressive Arts, through interdisciplinary learning, for example linking Mathematics, Science and Technologies in an engineering context, and through the use of technologies to enhance learning.

Therefore, Technologies is an integral component in every Cross Curricular and/or Interdisciplinary Learning theme from Nursery to Primary 7.

Further information about contexts can be found in the Cross Curricular/Interdisciplinary Learning Policy.

Enterprise
The school has a number of conduits to promote enterprising skills and attitudes. These include:

- Enterprise element of the Community Working Group
- Our Business World whole school theme

Engaging with the Wider Community

Every year, the school raises the profile of specific subjects by planning cross curricular learning themed worlds. This allows for strong links with the local and wider community to be established and strengthened. There may be people listed in the school's Parental Skills Database to contact for support with planned activities. This also allows pupils to make real life connections between a curricular area and the wider world.

The school also has a number of business partnerships to support mutual developments and projects.

Assessment

Assessment in the technologies will focus on practical, problem-solving and collaborative activities which enable pupils to show that they know, understand and can use technological skills and concepts across all the contexts for learning in the technologies.

Teachers can gather evidence as part of pupils' day-to-day learning, and specific assessment tasks will also contribute to assessing progress. From the early years pupils can demonstrate progress in their skills in making models and preparing food, in planning and carrying out practical investigations and solving problems, in discussing and debating ideas with peers and adults, and in recording and presenting their thinking in different ways, including using ICT.

Approaches to assessment should identify the extent to which pupils can apply these skills and use them creatively in their learning and their daily lives and in preparing for the world of work. For example:

- How well do they contribute ideas and suggestions and develop team working skills?
- How well do they collaborate and independently participate in learning activities which lead to products with real uses?

Pupils can show progress by responding enthusiastically to more demanding and challenging concepts in technologies, showing increasing depth of understanding in their explanations, and applying knowledge and skills in more demanding or unfamiliar contexts. They can also demonstrate progress through their increasing independence and confidence when carrying out tasks and their increasing resilience in facing challenges. Progress includes increasingly well-structured explanations and well-argued opinions and conclusions, including developing informed views on environmental, ethical and economic issues. Assessment should also link with other areas of the curriculum, both within and outside the classroom, and in the context of the world of work.

Further information can be found by accessing the Benchmarks for Technologies on the Education Scotland website.

Resources

The school is well resourced with a variety of technologies, including practical tools which can be found in the resource room. In terms of ICT, the school has:

- Laptops
- Chromebooks
- Mobile devices
- Smartboards
- Flip cams & cameras
- iMac & Macbooks
- Easyview