



Trelales Primary School

The following aims and objectives relate directly to the aims of the School and serve as a guide to our teaching and construction of Improvement Plans. Fundamental to the aims of the School being achieved is a realisation that the learning and development of a pupil is a partnership between parents, teachers and pupil. This policy reflects the views of the general school staff gathered through the ICT Standing Committee and the documentation produced pertaining to the position of ICT within the National Curriculum. The aims and objectives should work to complement individual subject aims and objectives, not to replace them. They also serve to support and shape all other ICT documentation.

Aims

1. To develop, maintain and stimulate pupils' curiosity, interest and enjoyment in ICT and to encourage pupils to have open, enquiring minds and to perceive ICT in the context of a wider body of knowledge, skills and vocabulary. Pupils should ideally become autonomous users of ICT with the associated skills supporting life long study, the pursuit of personal interests and prospective employment in a modern technological society.
2. To enable pupils to acquire appropriate, transferable ICT skills, knowledge and understanding - progression must feature in the acquisition of ICT skills. All staff should then feel confident that pupils have a basic level of ICT capability which can be applied to pupils' learning in a specific area of the Curriculum. Pupils should feel confident enough with their transferable skills that they are encouraged to use unfamiliar software.
3. To enable all pupils to have equal access to ICT and to experience success in their work.
4. To support all staff in their need to develop confidence and strategies in using ICT within their teaching by:
 - a) providing an ongoing INSET programme for staff appropriate to their needs, their pupils' needs and the needs of the Curriculum – see INSET policy;
 - b) offering informal support to staff.All teachers should be shown how ICT can facilitate the delivery of all aspects of the curriculum.
5. To implement the belief that ICT must feature in the overall Improvement Plan for the School and that appropriate resources must be allocated to it.
6. To allow pupils to develop informed opinions about their ICT and to be able to support them by reasoned arguments.
7. To support the implementation of the statement on 'Shared Values' and to enable pupils to develop a range of desirable personal qualities such as safety awareness, politeness, perseverance, concern for others, initiative and independence.

Objectives

These objectives relate directly to the seven aims of ICT at _____ School.

1. The National Curriculum Key Stage 1 & 2 orders should be used as a basic core for the scheme of work. The schemes of work for ICT and other subjects should refer to the four main categories of ICT as being:

Category 1 - Finding things out

Pupils should be:

- able to collect, retrieve and consider information and data from a variety of sources, e.g. people, books, databases, multimedia CD-ROMs, videos and TV.
- able to enter and store information in a variety of forms, e.g. in a prepared database and to save their work on both fixed and removable storage media.
- able to retrieve information from their saved work on both fixed and removable storage media.
- critical of the validity of information produced using ICT and be aware that the results may be affected by the use of inaccurate data or careless data entry.

Category 2 - Developing ideas and making things happen

Pupils should be:

- able to use computers, spreadsheets, programmable devices and dedicated instruments for automating actions/processes, testing predictions, discovering patterns/relationships, problem solving, modelling, controlling events, monitoring and measuring processes.
- able to use modelling to simulate situations which cannot be experienced in the classroom, e.g. use of model programs to simulate, explore and evaluate unusual or dangerous experiences, processes, reactions and environments. Controlling, monitoring and measuring can all involve data capture and data logging, e.g.
 - i. practicals provide opportunities to utilise sensors of pulse rate, temperature, pH, pressure, length, movement, force, resistance, etc.
 - ii. the investigation/analysis of physical relationships and processes using spreadsheets can be used to model the effects of changing one or more variables.
- able to use text, tables, images and sound to develop their own ideas.
- able to select from and add new information, for a particular purpose, to that which they have personally retrieved.
- able to measure, record and respond to and derive new information, for a particular purpose.
- able to plan and give instructions that make things happen, e.g. programming a buggy or floor turtle to follow a predetermined route by programming appropriately sequenced instructions.
- able to develop their own ideas and explore what happens in real and imaginary situations, e.g. trying out different colours on an image, using an adventure game or simulation.

Category 3 - Exchanging and sharing information

Pupils should be:

- able to use word-processor, spreadsheet, database, DTP and graphics software to analyse, organise, reorganise, draft, collate, refine and finally present information fit for a particular purpose.

- able to use e-mail and other means to share and exchange information.
- familiar with the different ways one piece of information can be presented.
- able to effectively present a variety of information in a variety of forms, e.g. text, images, tables, sounds, in order to share specific ideas with others, e.g. for public display.
N.B. This may involve the use of tape and video recorders.

Category 4 - Reviewing, modifying and evaluating work as it progresses

Pupils should be:

- able to judge when to use ICT to collect, handle and investigate scientific information.
- aware of the many possible applications of ICT.
- aware of how ICT can be used to do things which can also be done in other ways.
- share their views and experiences of ICT with their peers and others using relevant terminology.
- critical of their own work and that of others so as to review what they have done and to help them develop their own ideas.
- able to describe the effects of their own actions.
- able to consider and discuss how they might improve their own ICT work and capabilities.

Much of the work in the School is subject specific but where appropriate pupils are encouraged to use the skills and knowledge acquired in other areas of the Curriculum to enhance their work. All class teachers support the skills based ICT lessons by offering pupils the opportunity to reinforce and consolidate their skills in short tasks throughout a course of study.

2. The Lead Learner - ICT is active in supporting and developing staff awareness of how to make use of ICT skills and techniques within schemes of work. This occurs in work in a variety of subjects, e.g. the use of spreadsheets in Year 6 occurs:
 - in Mathematics to investigate number patterns and the development of formulae;
 - in Science to create displays and charts following experiments;
 - in Geography to investigate various aspects of weather patterns.

An introduction to basic ICT skills initially takes place once every week in Year 1 and is delivered as part of the Mathematics timetable. All work is delivered through topics relating to the Mathematics Curriculum. Another example is the use of a two day block of time in the computer room. This concentrates on the basic skills of word-processing and graphics. This work particularly supports English, History & Geography in the first term of Year 4. As a result this has been considered as a major remit for the Information Technology Standing Committee to examine, and a reason why the School remains committed to the support of teachers within the classroom until they feel competent in taking pupils forward. It is also the School's intention to continue to teach basic skills to ensure continuity and equality of opportunity for all pupils in the development of their ICT capability.

The following key skills are appropriate to ICT and are used for formative and summative assessment in Years 5 & 6.

Conceptualising Skills - the ability to organise information and form a concept or to generalise what has been understood so that an idea is clearer and easier to understand.

Investigative Skills

- the ability to identify ICT questions and issues, and to establish an appropriate sequence of investigation;
- the ability to identify and collect both quantitative and qualitative information/data and to make use of a variety of sources, e.g. statistics, Web sites, CD ROMs, etc.;
- the ability to observe, select and record information accurately;
- the ability to select appropriate ICT equipment and software to fulfil specific purposes;
- the ability to be systematic in the use of appropriate methods to search for and obtain data/information from a range of sources.

Interpretative Skills - the ability to extract, analyse and interpret information/data from a variety of sources. Pupils should be able to enter data into a data handling package for processing and analysis.

Evaluation Skills - the ability to evaluate (assess validity and limitations) and draw valid conclusions or reasoned judgements relating to accuracy of data/methods, methods of collecting/presenting or modelling techniques. Data should be assessed for accuracy and the significance/consequences of any errors understood.

Communication Skills - the ability to record and present information, and to describe it clearly using appropriate terms and techniques considering the target audience. Transformation of data to graphs, diagrams, etc. Extended writing to describe hypotheses, methods, results and interpretations.

Progression has been identified as a major concern for members of staff who feel they are only able to cope with a limited level of ICT themselves. To support the progression of skills for our pupils we endeavour to:

- i. expose pupils to the use of ICT in as many subject and contexts as possible. This will increase as more staff become more confident and begin to extend the incorporation of ICT into their schemes of work;
 - ii. use a wide and expanding range of software and ICT equipment as is appropriate, manageable and affordable;
 - iii. encourage pupils to recognise the transferable nature of their ICT capability and thereby have confidence when using new software or when using familiar software in a new context.
3. The modes of delivery across the Curriculum must remain flexible so as to address the various needs of the pupils in the classroom – see Equal Opportunities, Differentiation and Inclusion policies. Pupils who require special aids or adapted methods/environment/equipment to facilitate access to activities both within and beyond school are supported by:
- the provision of technological aids to assist in practical and written work;
 - the provision of communication methods other than speech, e.g. computers, technological aids, signing, Braille literature, symbols, lip-reading, etc.

Much of the software recommended by the Lead Learner - ICT features differentiation and the setting of appropriate targets for an individual pupil. Teachers work hard to share ideas to maximise their expertise in exploiting the potential of ICT in differentiating tasks and targets.

Teachers are also encouraged to adopt a wide range of teaching/learning styles within a course of study – the decision will have considered an individual's or a group's special needs and nature of work. Teachers actively celebrate effort and achievement in all areas and for all pupils. There is a determination to reward commitment and

perseverance at all levels of ability. Where appropriate a variety of ICT facilities are made available to encourage pupils of all abilities to experiment and progress.

4. The major platform by which training is offered is the ICT programme for INSET – see separate INSET policy.
5. The rate of development within ICT is rapid and appears set to continue for the foreseeable future. For the School to maintain realistic goals as to how it is to maintain some progress within ICT, all teachers must see its development as part of their role. A proportion of each Lead Learner's capitation, the School INSET and Improvement Plans must take ICT into account. There is regular discussion in the ICT Standing Committee with respect to how uses of ICT are enhancing or will enhance learning and how future developments could increase this. It also means Lead Learners are able to regularly share their own aspirations and subject plans, thus preventing the development of ICT taking any role other than a part of the overall development. We hope to have the 'machine for the job' (software, hardware and peripherals) to enable progression and continuity and to make full use of the ICT equipment with respect to:
 - the capabilities of the hardware;
 - the amount of use;
 - making use of any possible expansion capability.This includes the upgrading of the hardware and software where needed and when manageable. The manageability is determined by available finance, and realistic demands on staff time and staff assessment of what is required.
6. There are few aspects within our lives which are unaffected by the new technologies. The School therefore aims to mirror this and expose pupils to the diversity, influence and uses of ICT. This will encourage the pupils to become critical, independent users of ICT. Staff attempt to show the benefits that ICT have given to us as well as the associated problems by the use of well-chosen resources and carefully phrased comment.

The staff allow opportunities at various times for group discussion so that we can listen to each other's views and hopefully reflect upon them. Topics for discussion and consideration include:

 - computer systems and control technology in everyday life;
 - pupils' own experiences of ICT;
 - the use of ICT in the outside world;
 - how control is integral to many everyday devices;
 - critical reflection on pupil's own and others' use of ICT;
 - the impact of ICT and other new technologies on social, employment, ethical, moral and economic issues.
7. The School believes guidance is important as pupils begin to learn to take responsibility for their work and progress. Work must be sufficiently challenging, meet the needs of all individuals and provide a balance between teacher-directed and self-directed work. Teacher confidence is critical within the realm of ICT for them to feel confident enough to allow the pupils to go off at a 'tangent' or for pupils to undertake investigative work of a less prescriptive manner. Pupils are also

encouraged to carry out individualised research using the available ICT equipment in the Library area as well as computer room.

Teachers encourage discussion and sharing of ideas when appropriate to the work. Lessons are conducted in a calm atmosphere where mutual respect and trust abound - this atmosphere is conducive to pupils demonstrating a new technique to teachers and to 'take chances' with their work without fear of ridicule or feelings of failure. Pupils demonstrating a lack of respect for teachers or each other are dealt with in accordance with the School's Rewards and Sanctions/Discipline Policy. To actively involve the pupils in their learning will help to foster independent thinking and informed planning which is crucial if they are to exploit the ICT facilities to the maximum.

Pupils are encouraged to make informed choices at appropriate points. The aim is not to inhibit pupils by placing a ceiling on their target. (In reality this also depends on the level of support the less confident staff receive through INSET or directly in the classroom). At Key Stage 2 AT1 work in Science and Mathematics is used to encourage choices and freedom of expression to be made within the context of the learning. It is an ideal opportunity to exploit ICT and teachers work together to develop this.

The School's schemes of work therefore identify planned opportunities for pupils to develop a range of desirable personal qualities such as safety awareness, politeness, perseverance, concern for others, initiative and independence.

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