

Art 23: All pupils in Sperrinview have the right to lead a full and decent life with dignity and independence and to play an active part in the community (RRS team 2015)

Art 28: Every pupil in Sperrinview has the right to an education which will be differentiated to meet their individual needs (RRS team 2015)

Sperrinview Special School Science and Technology Policy

Rationale

Through experiences in Science and Technology, pupils will develop an awareness and understanding of themselves, each other and the environment in which they live. This will involve exploring the man-made as well as the natural world.

Aims

Through the programme of study for Science and Technology we aim to:

- encourage pupils to display caring attitudes towards each other and their environment
- provide practical problem solving activities which are challenging and relevant
- foster enjoyment in the work of science and technology
- encourage pupils to communicate with each other and adults in an open and confident manner
- develop appropriate scientific and technological language and vocabulary
- work in a safe and careful manner
- provide the opportunity for pupils to handle apparatus with confidence and skill
- integrate Science and Technology across the curriculum

Organisation and Methodology

Science and Technology is taught and reinforced within each class and also in a variety of settings in the wider community

- on an individual basis
- in small group lessons (size, flexibility and composition will be determined by the class teacher)
- paired work (similar ability or less experienced pupils with more experienced pupils)
- whole class teaching

Classroom organisation is determined by several factors

- the individual needs of the pupils
- the number of pupils
- the nature of the activity
- the diverse range of resources available (human and physical eg standing frames, wheelchairs, workstations etc)

The classroom team consists of a class teacher plus classroom assistant(s).

At the age of 16 students enter the School Leavers' Programme. Science and Technology are now part of Independent Living Skills, Home Economics and Vocational Skills.

Developmental milestones are not reached at predictable times, therefore, teaching approaches must be flexible. These include:

- modeling
- sharing
- guiding
- visual approaches (for pupils within the Autistic Spectrum)

The emphasis will be on promoting pupils' learning through the provision of quality, concrete, active experiences across the curriculum eg multi sensory experiences, structured play, environmental visits etc.

Teachers' expectations will ensure that all tasks will have clearly identified learning outcomes and are matched to pupils' abilities and interests.

Roles and Responsibilities

The co-ordinator for this subject is Mr Kyle Reid.

The Principal has overall responsibility for the implementation of the policy.

Teachers, when planning, will take account of pupils' needs, Programmes of Study, the NI Curriculum, the school science scheme, topics agreed prior to the start of the school year and Cross-Curricular Themes. These will be reflected in the Schemes of Work and Individual Education Plans.

Each teacher presents the co-ordinator and the Principal with termly copies of topic webs and half-termly planners. These, along with discussion between the teachers and the co-ordinator, are used to determine continuity and progression.

Parental Involvement

We recognise the importance of meaningful, regular and positive communication between parents and teachers. Parents are provided with opportunities, formally and informally, to discuss their child's progress and to become familiar with and involved in the work of the school. This happens through:

- home/school books
- homework (see homework policy)
- telephone contact
- parent meetings
- parent workshops

Staff Development

The co-ordinator will keep abreast of current developments and ensure that staff are updated through:

- school based INSET
- EA Southern Region based INSET
- external courses
- educational journals eg Special Children

Also see document: The Role of the Co-ordinator.

External Support

Parents

Local and wider community

EA Southern Region

Teachers' Centre

Monitoring and Evaluation

The Science and Technology policy will be monitored and evaluated on an ongoing basis through consultation with pupils, staff and parents. (Also see *Assessing, Recording and Reporting Policy*).

Examples of evidence include records of educational and environmental visits, Sperrinmag, photographs, video footage, class produced books, newsbooks, wall displays, Records of Achievement and any other relevant materials.

Review

A sub-committee of the Board of Governors will monitor and evaluate the effectiveness of this policy as part of a timetabled, ongoing process.

Signed: _____ Date: _____

Science Resources

General

Card wheels

MDF wheels

Turned wheels

Corriflute rectangles

Syringes

Flexible tubing

Dowel rod

Spools

Tubing for spools

Masking tape

Single battery holders

Double battery holders

Battery snaps

Bulb holders

Bulbs

Switches

Motors

Motor clips

Motor pulleys

Wooden pulleys

Screw drivers

Wire strippers

Coping saws

G Cramps

Torso

lastic mirrors

Torches

Candles/night lights

Microscope/Slides

Hand Lens

Garden tools

Propogator

Plant pots