**Social, Environmental and Scientific Education Whole School Plan**

**Scoil Cholmcille Junior,**

**Ballybrack**

**Roll No: 19641T**

**Introductory Statement:**

The Deputy Principal and staff met in January 2016 and planned to implement the key messages, skills, content and methodologies of the SESE curriculum. The plan forms the basis of each teacher’s long and short term planning in SESE. It informs new or temporary teachers of our approaches and methodologies in this subject area.

**Rationale:**

We recognise that SESE incorporates the three integral elements Science, Geography and History. We aim to integrate the three elements by using an integrated thematic approach to SESE planning in our Junior School. The 10 themes are as follows:

1. Myself
2. Clothes/colour
3. Energy
4. Food
5. Games and Fun
6. Homes
7. Then and Now, Old and New
8. School and Community
9. Special Occasions, Celebrations, Festivals
10. Water

SESE provides opportunities for the child to explore, investigate and develop an understanding of the natural, human, social and cultural dimensions of local and wider environments, to learn and practise a wide range of skills and to acquire open, critical and responsible attitudes. SESE enables the child to live as an informed and caring member of the local and wider communities. We recognise the role SESE has to play in helping children come to terms with the biological and physical world.

The plan has been drawn up in response to the 1999 Primary School Curriculum, to conform to the principles outlined in this curriculum and to review our practices in the light of these principles. As a whole school plan it guides and organises the teaching and learning for SESE in our school. It will benefit the teachers by informing classroom planning and will be of ultimate benefit to pupils by ensuring SESE activities are balance and well planned.

**Vision and Aims:**

**Vision:**

In our mission statement for Scoil Cholmcille Junior we state that our aim is to provide a safe and stimulating environment where each individual child can learn and develop holistically to his/her fullest potential –intellectually, physically, culturally, morally, spiritually in a caring Christian atmosphere. Through our school’s SESE programme, we aim to help the pupils come to an understanding of and take an interest in the world and environment around them, both physical and biological. It is our aspiration that SESE will be a practical subject as much as possible with hands on activities that give an opportunity to develop scientific skills. Environmental activities in our school will foster a positive attitude and sense of responsibility among our pupils for the natural environment and its relationship with the human environment. Ultimately we aim to foster in the children a sense of curiosity in the world around them through fun filled active learning.

**Aims of SESE as per the Curriculum Statement** :

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| History |
| To develop an interest in and a curiosity about the past.  To make the child aware of the lives of women, men and children in the past and how people and events have had an impact upon each other.  To develop an understanding of the concepts of change and continuity.  To provide for the acquisition of concepts and skills associated with sequence, time and chronology, appropriate to the developmental stages of the child.  To allow the child to encounter and use a range of historical evidence systematically and critically.  To provide opportunities for the child to communicate historical findings and interpretation in a variety of ways.  To foster sensitivity to the impact of conservation and change within local and wider environments.  To help the child recognise and examine the influences of the past on the attitudes and behaviours of people today.  To foster a willingness to explore personal attitudes and values and to promote an openness to the possibility of changing one’s own point of view.  To encourage the child to recognise how past and present actions, events and materials may become historically significant.  To enable the child to acquire a balanced appreciation of culture and historical inheritances from local, national and global contexts. |

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| Geography |
| To endorse the aims of the Geography Curriculum.  To develop knowledge and understanding of local, regional and wider environments and their interrelationships.  To encourage an understanding and appreciation of the variety of natural and human conditions on the earth.  To develop empathy with people from diverse backgrounds and an understanding of human interdependence.  To develop the ability to use a range of communicative methods, especially those concerned with the development of graphicacy.  To encourage the development of a sense of place and spatial awareness.  To encourage the development of caring attitudes and responsible behaviour towards the environment, and involvement in the identification, discussion, resolution and avoidance of environmental problems.  To develop an understanding of appropriate geographical concepts. |

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| Science |
| To develop knowledge and understanding of scientific and technological concepts through the exploration of human, natural, and physical aspects of the environment.  To develop a scientific approach to problem-solving which emphasises understanding and constructive thinking.  To encourage the child to explore, develop and apply scientific ideas and concepts through designing and making activities.  To help the child to appreciate the contribution of science and technology to the social, economic, cultural and other dimensions of society.  To cultivate an appreciation and respect for the diversity of living and non-living things, their interdependence and interactions.  To encourage the child to behave responsibly to protect, improve and cherish the environment and to become involved in the identification, discussion, resolution and avoidance of environmental problems and so promote sustainable development.  To enable the child to communicate ideas, present work and report findings using a variety of media. |

**Curriculum:**

* 1. **Strands and Strand Units: Science Curriculum**

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| Strand | Strand Units |  |
| Living Things | Myself  Plants and Animals |  |
| Energy & Forces | Light  Sound  Heat  Magnetism and Electricity  Forces |  |
| Materials | Properties and Characteristics of materials  Materials and change |  |
| Environmental Awareness and Care | Caring for my locality |  |
| Skills Development | Working Scientifically  Questioning  Observing  Predicting  Investigating and experimenting  Estimating & measuring  Analysing  Recording & communicating | Designing and Making  Exploring  Planning  Making  Evaluating |

**Geography Curriculum**

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| --- | --- | --- |
| Strand | Strand Unit |  |
| Human environments | Living in the local community  People and places in other areas |  |
| Natural Environments | The local natural environment  Weather  Planet Earth in space |  |
| Environmental awareness and care | Caring for my locality |  |
| Skills and concepts Development | A sense of place and Space  A sense of place  A sense of space  Maps, globes and graphical skills  Picturing places  Using pictures, maps and globes (First & Second Classes) | Geographical Investigation skills  Questioning  Observing  Predicting  Investigating & experimenting  Estimating and measuring  Analysing  Recording and communicating |

**History Curriculum**

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| Strand | Strand Units |  |
| Myself and my family | Myself  My family  When my grandparents were young (1st/2nd)  Games in the past (1st/2nd)  Feasts and festivals in the past (1st/2nd) |  |
| Story | Stories |  |
| Change and continuity | Continuity and change in the local environment (1st/2nd) |  |
| Skills and concepts development | Working as a historian in infant Classes  Time and chronology  Using evidence  Communication | Working as a historian in 1st/2nd Classes  Change and continuity (1st /2nd)  Cause and effect (1st/2nd)  Empathy (1st/2nd) |

**1.2 Children’s Ideas:**

Teachers elicit at the start of every lesson what the children know already and use the children’s ideas as a starting point for all scientific activity. Teachers use a number of strategies and methodologies (mentioned below) to elicit what the children already know. Children are encouraged to pose their own questions and set up investigations to find answers.

**1.3 Key Methodologies**

* Talk and discussion
* Open questions and problem solving activities
* Active learning
* Free exploration with materials
* Annotated drawings (simple drawings and labelling of pictures in infant classes)
* Concept maps and brainstorming
* Use of everyday objects found in the local environment
* Outdoor habitat work
* Content spiralling from class to class

**1.4 Practical Investigations**

Children use practical investigations to enthuse, motivate and excite the children when learning about SESE. We will include the following investigations :

Open investigations : Pupils will be given or may suggest an open question for which they will have to design their own investigation and come up with their own results.

Closed investigations:Activities and investigations where the end result is obvious and there are not many variables.

**1.5 Classroom Management**

A combined approach of whole class work, small group work, paired work and individual work on chosen topics and projects will be used in each class.

Children will be given an opportunities to work together collaboratively and share their own ideas.

Both the investigative and teacher-directed approach will be encouraged and used.

Teachers will use their own judgement to decide which methods and approaches are best suited to their pupils.

**1.6 Linkage and Integration**

We encourage the linkage of strands within SESE and the other subject areas. Pupils’ view of the world is a holistic one and as such more meaningful learning takes place in an integrated setting e.g.

History integrated with English and sequencing and re-telling a story, summarising etc

Science: The Lifecycle of the butterfly integrated with English and Drama with The story of The Hungry Caterpillar

Science integrated with Maths e.g measures and data integrated with Heat and temperatures.

Geography integrated with Maths for measuring, estimating etc

Geography and maps integrated with P.E. and orienteering and spatial awareness in Maths.

Design and Make activities integrating with Visual Arts.

**1.7 Using the Environment**

We use our local environment as a resource. We promote the transfer of environmental awareness in the curriculum to environmental action in the school and wider community through our participation in the Green Schools Programme. We have just been awarded our fifth green flag for Bio-Diversity. The school maintains and promotes our awareness and good practice which has evolved from previous green flag projects e.g. waste management through the practice of segregating our waste into compost, paper and general waste and conservation of energy etc

Our local habitats include:

* Bird houses
* Bird feeders
* Walls clad with ivy and cotoneaster
* Hedgerow
* Grass
* Yard
* patios
* Deciduous and evergreen trees
* Flower beds
* Raised beds for planting of herbs, vegetables, flowers.
* Apple and pear trees
* Composter
* Bug hotel
* Nearby Kilbogget park and pond

Habitat Studies in our school will take into account the following:

* The seasonal study of individual habitats
* Outdoor investigation and exploration
* Sample collection

In our habitat studies we will explore the following

* Minibeast studies
* Food chains
* Life Cycles
* Adaptations
* Caring for the environment

**1.8 Balance between Knowledge and Skills**

Pupils will be given an opportunity to engage in Design and Make activities appropriate to their ability, age and area of study. The children will be working in a scientific way, questioning, observing, predicting, investigating, analysing and recording and therefore acquiring knowledge. They will be exploring, planning and analysing materials through design and make activities e.g. Fashion Hat Project, Making and designing bird feeders and bug hotel, baking, cooking, gardening and simple science experiments e.g. chromatography. Such hands on practical activities will promote the development of scientific skills and facilitate better understanding of scientific topics.

**2. Assessment and Record Keeping**

Assessment in SESE seeks to achieve a balanced picture of the children’s progress in the acquisition of knowledge and skills. Information from assessment will be communicated to parents in the school report at the end of the year and at Parent/teacher meetings in the first term.

Assessment tools:

* Teacher observation
* Concept mapping
* Annotated drawing
* Teacher-designed tasks
* Portfolios of work
* Pupil feedback

**3. Children with Different Needs:**

We will endeavour to make SESE accessible to as many children as possible as we recognise the potential science has to help children make sense of the physical and biological worlds in which they live. We are aware of the possibilities for fun and developing a sense of curiosity and wonder that science holds for children.

Mixture of whole-class teaching and group work

Group work differentiated with different groups set tasks of various complexities

Variety of questioning techniques ranging from simple recall to more complex and analytical skills

Variety of ways to record based on the child’s level e.g. brainstorms, drawings, photos, oral reports and models

Children who have lived in other countries will be invited to share their experiences with the other pupils

**4. Equality of Participation and Access**

Assistance provided to enable participation in SESE activities so that SESE will be accessible for all children regardless of gender, age or ability.

**5. Timetable:**

Our teachers work in keeping with the recommendations in the Primary School Curriculum (p.70) for SESE i.e. a minimum of two and a quarter hours in infant years and three hours for 1st and 2nd Class per week. On occasion, time will be blocked as appropriate when working on an integrated project or exploring the local environment.

**6. Resources and Equipment**

We have identified the resources already available in the school and have organised our resources according to the strands of the curriculum e.g. Energy and Forces : magnets or Energy: heat: thermometers. These resources are stored in a communal science storage area.

Communal science storage area

Individual science box for each class

Design and Make Activity Boxes for classrooms e.g. K’NEX

Variety of SESE text books provided to every teacher : Earthlink, WOW, Unlocking SESE

**7. Safety**

Reference will be made to the School Safety Policy

**8. Homework**

Occasional SESE Homework and activities or questionnaires will encourage a stronger link between home and school and increase awareness of the knowledge and skills the children are developing through SESE. Projects such as The Green Schools Initiative fosters greater shared awareness of local environmental issues.

* Survey of electrical appliances
* Sound walk in the home
* Researching on internet or in the library
* Looking for and bringing in souvenir or memento
* Timeline for milestones
* Parent/grandparent questionnaire e.g changes in the locality, toys now and long ago
* Show and tell objects or artefacts

**9. Individual Teachers’ Planning and Reporting:**

Long-term and short-term plans will be based on the approaches and methodologies set out in the school plan. Work covered will be outlined in the Cuntas Míosúil.

**10.Staff Development:**

Teachers will be made aware of opportunities to attend SESE courses and training. In-service workshops and summer courses will be brought to the staff’s attention.

**11.Parental Involvement:**

Parents and Grandparents have an important role to play as custodians of local knowledge that can be shared with their children as they explore the various aspects of the local environment. Parents are involved in a variety of ways and the following are a few examples:

Science for fun

Gardening and flower arranging for parents

Baking and cooking with parents and children

Underwater mural project by parents

1916 mural project by parents

Parental involvement with Green School Flag projects

**12.Community Links:**

People in the local community who have an interest and knowledge in the environment as well as local and national agencies may be invited from time to time to work with classes or address pupils e.g.

* Dale Treadwell Environmentalist
* Heritage Programme, An Taisce
* Green Schools Programme
* Community Garda
* Lollipop Lady
* Visit to Lexicon Library in Dún Laoghaire
* Visit to Friends First work place in Cherrywood offices.

**Success Criteria:**

We will measure the success of our plan by monitoring the following:

Evidence of scientific skills and knowledge development in pupils throughout school

Increased interest in science and environment throughout the school

Evidence of practical activities in the classes

Resources and equipment being used throughout the schools

Class and school displays

Evidence of classes engaging in outdoor habitat work

Formal and informal assessment as outlined in this plan

Positive feedback from parents and pupils

**Implementation:**

All teachers are responsible for the implementation of the SESE programme in their class and the care of equipment. Science and SESE equipment and resources are distributed at the beginning of the year and collected and checked again at the end of the year by the SESE resources co-ordinator. The co-ordinator orders and replaces equipment.

**Roles and Responsibilities:**

The Board of Management ratifies the plan and supports its implementation. The Principal will oversee its implementation and support staff.

Class teachers are responsible for the implementations of the curriculum and this SESE plan in their own classes and will be evident in the Cuntas Míosúil every month.

Parents will be aware of content of school plan and support the teaching of SESE.

Pupils will co-operate and participate in class lesson.

Designated postholder responsible for SESE equipment and resources

Designated postholder responsible for co-ordinating and distributing SESE teachers manuals and texts books

HSCL Co-ordinator Parental involvement in projects such as Science for Fun etc

Health and Safety Post Holder

**Review**

It will be necessary to review this plan on a regular basis to ensure optimum implementation of the SESE curriculum in the school. This SESE plan and any further changes, will be communicated to parents on the school website.

Those involved in the review

• Teachers

• Pupils

• Parents

• Board of Management

This plan was ratified by the Board of Management of Scoil Cholmcille Junior

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Chairperson of BOM