



**Primary Curriculum  
Support Programme**  
*foghlaim agus forbairt*



**School Development  
Planning Support**

**Whole School Plan for**  
**Science**  
**Glynn NS**  
**2015**

## Science school Plan for Glynn N.S.

### Introductory Statement:

This plan was formulated as a result of:

- The introduction of the Primary School Science Curriculum 1999
- In-service courses with regard to this programme
- In school planning days for general planning and that of science

### (b) Rationale:

The reasoning behind this plan is:

- To benefit the teaching and learning of science in Glynn N.S.
- To provide a whole school coherent approach to teaching science in Glynn
- To ensure that pupils are given opportunities to develop skills and understanding as envisaged in the Primary School Science Curriculum

## ■ Vision and Aims

### (a) Vision:

The vision of the school is that the science curriculum:

- Will help the students in the acquisition of scientific knowledge and concepts about the biological and physical aspects of the world
- Will help the students to work scientifically and develop a broad range of skills of enquiry
- Will help the students to develop important attitudes in relation to science and its value in the world of today

### (b) Aims

- Glynn N.S. endorses the aims and objectives of the science curriculum as stated on pp. 11-12
- In addition Glynn N.S. will specifically use the local woods, school field and environs generally to facilitate learning of science
- Glynn N.S. has an adapted Green School Policy that it implements as part of the strand Environmental awareness and care

## ■ Curriculum Planning

### 1.1 Strands and Strand Units

As on p15 Curriculum 1999, Infants

As on p31 Curriculum 1999, First and second classes

As on p51 Curriculum 1999, Third and fourth classes

As on p73 curriculum 1999, fifth and sixth classes

In Summary:

#### Strands

- Living things
- Energy and forces
- Materials
- Environmental Awareness and care

#### In addition:

1. To include skill development of Working Scientifically and Designing and Making

2. Teachers will ensure that they select topics from all strands each year for teaching.
3. Some aspects of the Human Life strand unit of Living things with regard to human growth, development and reproduction will be covered in line with the school's plan for the RSE elements of SPHE.
4. Teachers will follow the EarthLink programme for classes first to sixth for a framework to ensure continuity and avoid duplication. This programme is spiral in nature and covers all stand and strand units. Teachers will supplement this programme as they see fit with other resources, practical class activities, outdoor trips, IT, projects etc.
5. Teachers Junior Infants and Senior Infants use 'What a wonderful World' and in addition 'Windows on the World'
6. First class readers ...Book of Facts have strong science element also

### **1.2 Children's Ideas**

- Teachers will endeavour in so far as is practicable to use children's ideas as starting points for scientific activity.
- Strategies to be used to this end include, talk and discussion; questioning, listening, problem-solving tasks, concept mapping.... This may be in relation to books both fiction and non-fiction, news, local events, national events, television programmes, seasonal changes etc.

### **1.3 Practical Investigations**

- The staff of Glynn NS is committed to the use of hands-on and practical activities both in the classroom, the school grounds, local vicinity of school and further a field with organised trips, school tours etc.
- Project work and practical activities will be organised to allow for differentiation. Children may be grouped so different abilities within the group will complement one another. Different work may be allocated to different groups.
- Teachers will provide opportunities for both closed and open investigations.
- Children will be given opportunities to play freely with such materials as magnets, batteries and bulbs, torches and batteries, etc. in an exploratory manner and so discover for themselves something of the nature of these items.
- The concept of a fair test will be emphasised throughout the school.
- Weather observation, measurement and recording will be a regular feature of most classrooms, more detail for Greenwave project – use of thermometer, anemometer, rain gauge and recording on charts, graphs, etc.

### **1.4 Classroom Management:**

- Classes will be organised for whole-class activities, group, pairs and individual work as applicable
- Children who generally work well together will be so grouped for activities
- Groups will be kept as small as possible to allow maximum involvement
- Children will be trained to behave responsibly in group setting and whilst working on individual projects
- Safety is a priority. Should the teacher deem it necessary, bearing in mind class numbers and the type of activity involved, activities may be done by demonstration.
- Field trips, nature walks and school tours will only be organised where there is sufficient extra help to ensure safety of the children. At least one extra adult is needed and a mobile phone. High visibility vests are used and the rules of the road followed.
- Routines will be organised for the setting up of activities and the cleaning up afterwards.
- Models and projects will be displayed in class or preferably in school corridor where the wider school community may see them.

### **1.5 Key Methodologies:**

- Using the environment: teachers in Glynn NS are committed to the use of the local environment in the teaching of SESE, the school yard, field, local woods, stream etc
- Active Learning – Likewise the staff believe in the importance of children being active in

their own learning.

- Guided and Discovery learning: Children will be supplied with materials necessary and guided towards making discoveries of a scientific nature.
- Free exploration of materials – various materials for investigations will be given to the children and they will usually be given some time to explore the nature of these before using. See attached sheets for resources in various strand areas.
- Spiral nature of the curriculum – This is central to the curriculum of Glynn NS with various topics being continually returned to for further development and learning.
- Learning through language – Vocabulary is important to clarifying of ideas and findings. Oral, reading and writing written are all emphasised.
- Differentiation – This may be addressed through the use of group or individual work and care when grouping children to ensure all children are working to their own abilities.
- Use will be made of books, both fiction and non-fiction, CDs, DVDs and IT.
- Where ever possible outside speakers may be asked to speak to children on topics of a scientific nature.
- The school has a dedicated science notice board for displays egg recycling, greenwave...

### **1.6 Linkage and Integration**

- Linkage and integration are encouraged to obtain maximum benefit from the time allocated to science and to maximise learning.
- Integration in the area of Mathematics as regards measuring, estimating, recording data and analysing is to be encouraged.
- Likewise the importance of Art to encourage observation and as a medium for recording are very important
- The importance of Art in the design and make skill development area is also paramount.
- Integration with the English language cannot be overstated. The use of discussion, oral and written reporting and the use of books and IT to source information for projects are all part of the science curriculum

### **1.7 Using the Environment**

- The school grounds are used for nature walks and investigations regarding mini-beasts, also naming of trees, plants, flowers
- Treasure hunts in school field may include science element
- A school garden is kept to the front of the school containing spring flowers, shrubs, summer bedding plants, Occasionally samples of corn and vegetables are also grown
- The local graveyard also has interesting plants including mosses and lichen
- The local woods have a wide variety of plants, evergreen and deciduous trees, ferns, mosses, flowers including bluebells, wild garlic, Herb Robert. It also has a stream and several ditches and banks. These ditches contain frogspawn in spring.
- Many birds frequent the woods including blackbird, robin, sparrow, thrush, magpie ...
- Composting bins are kept in the school grounds, recycling encouraged in class
- The notice of the children is drawn to the recycling bins adjacent to the church for recycling glass and cans.

### **1.8 Balance between Knowledge and Skills:**

Glynn NS is committed to the importance of the skill developments of the Scientific Method and Design and Make.

- Children will be encouraged to question, observe, predict, investigate and experiment, estimate and measure, analyse, record and communicate when involved in scientific work.
- Likewise children will be regularly involved in Design and Make in the areas of Exploring, planning, making and evaluating. Examples of models made include: land yacht, periscope, magnetic cars, torch

## **2. Assessment –**

*(Refer to school's policy on Assessment and record keeping,, online school website) Teacher Guidelines pp.142-145; Curriculum pp. 142-145)*

- Children will record work in many ways i.e. written, diagrams, drawings, models, projects , graphs on noticeboard and with use of IT,
- Teachers regularly take photographs of experiments, field trips, etc. and these are displayed on the school website
- Teacher designed tests may be given particularly prior to parent/teacher meetings and for end of year reports to parents.
- Assessment may include assessment of knowledge, skill development and attitudes
- Teacher/ student conferencing, peer assessment and self-assessment will be features of assessment also.

## **3. Children with Different Needs**

- Every effort will be made to be inclusive of all children including children with physical and learning disabilities and adapt activities where practical
- SNAs will be mindful in particular of their assigned children and also others during science activities
- Projects and differentiated work may be given to more able students

## **4. Equality of Participation and Access**

*Refer to school's Equality Policy online school website)*

- Boys and girls are expected to participate equally in all activities

## **■ Organisational Planning**

### **5. Timetable**

- Science is taught as part of the SESE programme
- It is envisaged that a dedicated time for science will be allocated each month which may be divided up weekly or used in block for field trips, etc.
- Science will be integrated with Maths, i.e. measuring, recording...Likewise integration with aspects of SPHE, e.g. the human body.
- Linkage within the SESE programme particularly with topics like weather, will increase time for the study of Science
- Students will not be withdrawn for supplementary teaching if this coincides with activities such as nature walks, etc.

### **6. Resources and Planning**

- The Junior classes use the SESE programme 'What a wonderful World' and 'Windows on the World'
- The senior classes use the SESE programme 'Earthlinks'
- The English Reading scheme in use in the school 'Matter of Fact' has a strong element of science, also Fact books First class
- Posters are available within the school on Seasons, Electricity, sound, light etc
- The library contains a large selection of non-fiction science books
- Boxes of resources for strand units of the Forces and Energy strand are available. There is a box for light, electricity, magnets, heat, sound and forces.
- A box is also available for gardening, nature walks, food science and weather
- Some CDs are available

### **7. Safety:**

- Safety is a constant concern in the primary school
- Sufficient supervision will be provided for all activities including field trips
- Every effort is made to use safe materials i.e. rounded top scissors, plastic containers, paint, glue that is non-toxic
- Children will have safety advice with regard to not eating berries etc, washing hands after field trips etc

- Children will be trained in safe work practices, keeping workspace tidy, walking in classroom, looking at what you are doing and not being involved in rough behaviour that may endanger themselves or others.
- If an activity may be dangerous the teacher may demonstrate the activity or show pictures, videos etc.

#### **8. Homework**

- Homework will not generally be assigned for science.
- However students may be asked to collect and bring into school materials for science activities.
- Students may be asked to bring in samples of leaves, nuts, berries etc. for nature table.
- Children may be asked to watch particular TV programmes as relevant to science.

#### **9. Individual Teachers' Planning and Reporting:**

- Individual teachers are responsible for their own planning
- Reporting is done by way of end of month reports
- Teachers will report to parents at parent/teacher meetings in November of each year and by way of written school reports in June.

#### **10. Staff Development:**

- All teachers attend in-service as organised by the DES
- Teachers attend summer courses, do on-line courses and other courses as they deem necessary.

#### **11. Parental Involvement:**

- As with all subjects parents are encouraged to take an interest in their children's education in the area of science
- Parents may assist children in collecting items for science activities at school
- Parents may encourage children to watch Science related TV programmes and read science material
- Parents are asked to support the school in its Green Schools programme.
- Most importantly parents are asked to encourage a positive attitude towards science.

#### **12. Community Links**

- Students may participate in scientific projects such as Greenwave project, Green schools, etc.
- Visitors with specific knowledge are welcome in the past a parent made of presentation on space, telescopes, planets, etc.
- Wexford County Council organise speakers on environmental issues and these are encouraged i.e. Recycle, Reduce, Reuse, show
- Classes participate in competitions of a scientific nature where useful
- Once yearly, usually March, 5<sup>th</sup> class participate in environment based field trip organised by the Bird Sanctuary, North Slob in Curracloe involving pond dipping and a wood and shore land walk



## ■ Success Criteria:

The success of this plan will be judged by:

- Improved delivery of the science curriculum by the teachers
- Increased knowledge and understanding of the children of the stand and strand units covered by the curriculum
- Children will have a greater interest and concern for their environment.
- Positive feedback from parents/teachers/pupils/ community with regard to the science curriculum
- Positive feedback from second level schools

## ■ Implementation

(a) **Roles and Responsibilities:** The role of implementation of this plan is the responsibility of the school principal. All teaching staff are directly involved and committed to its implementation.

(b) **Timeframe:** This plan is for immediate implementation following ratification by BOM

## ■ Review

(a) **Roles and Responsibilities:** The school Principal has overall role and responsibility for the review of this plan. He will be facilitated by the entire teaching staff in this matter.

(b) **Timeframe:** This plan was reviewed in March 2012 and again in December 2015. It is open for minor changes and reviews at any staff meeting. It is envisaged that it will be discussed at least once a year where the provision and storage of resources is likely to be a major concern. It will be reviewed again December 2017.

## ■ Ratification and Communication:

This plan was ratified by the BOM of Glynn NS in March 2009. It was reviewed in March 2012. This plan was again reviewed Dec 2015 and ratified by BOM on 25<sup>th</sup> April 2016. The revised plan will be posted on the staff notice board, the school hard drive (under Science, School Plan) and on the school website for parents and the wider community.

Signed Patrick Stabband 11  
Rev. P. Stafford PP  
Chairperson BoM

Date 29/4/2016