

Broadmeadow Community National School, Rathbeale Road, Swords, Co. Dublin <u>https://broadmeadowcns.ie</u> <u>broadmeadowcns@ddletb.ie</u> Roll Number: 20529J

## MATHEMATICS CURRICULUM POLICY

## BROADMEADOW COMMUNITY NATIONAL SCHOOL



### Principal: Miss J. Robinson

The Principal of Miss Jennifer Robinson is responsible for the implementation of this Mathematics Curriculum Policy.

# Introduction

The purpose of this plan is to conform to the principles outlined in the Revised Curriculum. We plan to outline the strands as they apply to each year group and how best to implement them within Broadmeadow CNS and what language is to be used to support continuity and progression.

#### **Mathematics Vision Statement:**

Our school cherishes all pupils equally and seeks to aid them in achieving their true potential in the best way possible. We seek to make the various strands of Maths applicable to each child's stage of development in as far as is practical within the classroom setting. As in all areas of the curriculum we aim to develop in each child a confidence and acceptance of their varying degrees in ability and stages of ability. We endorse the aims and objectives of the Revised Curriculum for Mathematics at al times.

## **Objectives**

- Each class teacher will familiarise themselves with the full aims and objectives across the curriculum, not just their own year group. This will support under and over achievers learning too.
- Each teacher will bear in mind that in planning, a balance between the strands should be kept throughout the year.
- Appropriate resources will be supplied to aid the learning of the child.
- Clear connections will be made with parents and families to support home learning within Mathematics.
- Mathematics will be celebrated within the curriculum time and also cross curricular and within celebrations such as Maths Week, Science Week etc.
- Planning will be kept class appropriate with collaboration and overview by the Principal and Maths Lead.
- Planning will be kept by individual teachers on file in each classroom and within an online document.
- A whole school approach will be taken to all planning and assessment within Mathematics.
- All areas that are covered will be recorded in Cúntais Miosúil using the standard school template within the planning document.

# **Approached and Methodologies**

The approaches and methodologies used by teachers in their teacher and learning may within Junior Infants include one of more of the following:

- Active learning
- Guided discovery
- Talk and discussion
- Problem solving
- Collaborative learning

- Using the environment
- Skills through content
- Use of ICT
- Learning through play
- Direct teaching
- Concrete materials
- Modelling (skills, strategies and language)
- Oral approach to mental maths
- Estimation strategies

# **Allocated Time**

According to the Teacher Guidelines, Junior and Senior Infants classes will spend a minimum of 3hours engaged in Mathematical activities every week. Integration will be encouraged in order to maximise the amount of time the children spend exposed to Mathematics.

# **Parental Support and Involvement**

- Methodologies and the language of Maths will be explained to parents at parent-teacher meetings so that there can be consistency between home and school.
- The importance of trial and error, estimation and the use of concrete materials rather than an over-emphasis on getting the right answer will be outline.
- Maths homework will be set as a consolidating activity, inviting feedback from parents.
- Use of online apps and websites for supporting Mathematics learning.
- Parents can access extra information on our school website: broadmeadowcns.ie

### Assessment

Assessment will be carried out on a class by class basis by individual teachers. The approaches used may include:

- Teacher observation
- Teacher designed tasks and tests
- Work samples, portfolios and projects
- Curriculum profile
- Pupil profiles

On entry, the Junior Infants will take part in a Bracken Assessment for school readiness. This will provide a standardised score and a percentile range score used for tracking and assessment for progress.

# **Meeting Abilities**

A balanced mathematics programme will cover concepts, skills and problem solving and should consider the child's strengths and weaknesses. The introduction and development of each topic will be structured in a graded and sequential way to allow for the individual child to develop and participate at their own level and pace. Where a child demonstrates a particular difficulty, either with a topic, strand or overall, the class teacher will provide extra support and assistance to the child. If the child continues to experience difficulty, the class teacher will involve the learning support teacher assigned to their class. Should it be decided that withdrawal is required, parents will be consulted and an Individual Profile and Learning Plan (IPLP) will be drawn up for the child.

Where a child demonstrates a particular strength, the class teacher will endeavour to move the child forward, so the child is able to reach their full potential. The learning support teacher may be involved in order to support the child's learning and discussions may be had with the parents or families.

### Skills

The following skills will be borne in mind by individual teachers in relation to each strand:

- Applying and Problem Solving
- Communicating and Expressing
- Integrating and Connecting
- Reasoning
- Implementing
- Understanding and Recalling
- Estimating

### Resources

Each teacher is assigned their own set of mathematical resources in September. Other resources are stored centrally and are available to all teachers. It is encouraged that all children are given access to a range of mathematical resources for manipulation during discrete lessons and also during free time. Every June, classroom resources are collected up and teachers will be asked to compile a list of resources that need to be replaced and extra resources they believe should be assigned to their particular class level. Any additional resources needed should be discussed within the curriculum lead and Principal. All resources are well kept and audited. Any resources taken home and not returned may be charged for at a small cost, so that a replacement can be made.

### Environment

The staff of Broadmeadow CNS are aware of the value of using the local environment as a learning resource. The classroom, general school building, school grounds, local areas and home will all be used as a learning resource.

### Junior Infants

The learning environment within the Junior Infants class will be crucial to the development of Mathematical Skills. We would expect the classroom to include the following opportunities for the children;

- Mathematics area
- Accessible resources e.g. counters, peg boards, shapes, number lines etc.
- Beebots
- Language rich displays to support Mathematics
- Enquiry areas and mathematics challenges

### **Cross-Curriculum**

The spiral nature of the curriculum encourages the linkage of strands and overall integration with other subject areas.

## Homework

Homework will be set in a class appropriate way and will be prepared previously at school, consistent with our school's Homework Policy. Parental support and involvement will be encouraged. The emphasis will be on the child seeking to do the task or find a solution, rather than producing the correct answer.

## **Success Criteria**

The success of this plan will be measured using the following criteria:

- Ongoing assessment, formal and informal, will show that pupils are acquiring an understanding of mathematical concepts and a proficiency in maths skills appropriate to their age and ability.
- Implementation of the school plan will be evident in teachers' preparation and monthly reports.
- Results of Standardised Tests will be analysed every year to ensure that the teaching and learning of Mathematics improves.
- Inspector's Suggestions and Reports will be taken into consideration.

• Feedback from parents, pupils and the wider school community will advise the revision of this plan.

## **Roles and Responsibilities**

The Principal holds ultimate responsibility for the teaching and learning of Mathematics. The plan will be monitored and evaluated on an ongoing basis by all staff, both informally and in a formal way at staff meetings at least once every year.

## **Mathematical Language Policy**

This Mathematical Language Policy was drawn up by the school Principal in May 2020. The layout of this policy clearly illustrates what terms and phrases each child should experience at the different levels of their education in Broadmeadow CNS, so that continuity and progression is seen. This language policy will assist teachers in ensuring that this policy is implemented in full, we have presented some of the language under the appropriate strands and strand units that will be used by staff and parents alike.

#### Junior Infants

"An important aim of the mathematics programme is to enable the child to use mathematical language effectively and accurately. This includes the ability to listen, question and discuss as well as to read and record. Expressing mathematical ideas plays an important part in the development of mathematical concepts." (Curriculum, 2020)

#### Early mathematical Language

- Classifying activities- sort, group, put, place
- Matching- can you match...? Place the .... Next to, behind, in front etc.
- Comparing- which is bigger, smaller, brighter?
- Ordering- Can you order the numbers, shapes? Place them next to, infront, behind, near etc.

#### <u>Number</u>

- Counting- Lets order the numbers, we will count, what comes before, after? Start from number 3 and count on, count backwards, count forwards.
- Comparing and Ordering- which number is bigger, smaller, biggest, smallest, less than, more than, which comes first, second etc.
- Analysis of Number- Place value, hundreds, tens and ones

#### <u>Algebra</u>

• Extending Patterns- show me the shape that comes before, next, after, in front, behind. Can you continue the pattern, repeat the pattern? What comes after the....

#### Shape Space and Measure

- Spatial Awareness- in front, near, behind, next to, under, over, on top etc.
- 3D Shapes- three dimensional, solid shape, face, corners, edges
- 2D Shapes- flat shape, 2 dimensional, sides, corners

#### <u>Measures</u>

- Length- side, longer, shorter, measure, bigger, smaller
- Weight-heavy, heavier, light, lighter, which is heavier, which weighs more, less, which is lighter? What happens to the scales when...?
- Capacity-full, empty, half full, capacity, container, which holds more, less?
- Time- O'clock, half past, clock face, minute hand, second hand
- Money- who has the most or the least? Coins, names of coins used where possible, greater than, less than, value, most value, less value?

#### <u>Data</u>

• Recognising and Interpreting data- *pictogram, most, least, popular, graph, table, tally.* 

#### **Review:**

This policy will be reviewed periodically by the BOM as deemed necessary.

#### **Signed Ann Graves**

Date 31.5.22

**Board of Management** 

Signed Jennifer Robinson

Date 31.5.22

Principal