

Caheragh National School

Mathematics Policy

Introduction:

Over the last year the existing school plan for maths was reviewed and changes necessary to implement the maths curriculum were identified.

This document is a statement of the aims and objectives, principles and strategies for implementing the mathematics programme at Caheragh National School. It was formulated by the school staff and informed by the Curriculum Statements and Curriculum Guidelines, needs of the children and the expertise and experience of the staff.

Rationale:

This plan is a record of whole school decisions in relation to maths in line with the 1999 Primary Curriculum.

- Children will benefit from structured approach regarding content and methodology
- To increase the standard of maths in our school
- Self esteem of staff and pupils is enhanced
- Resources are researched and shared
- It is the most effective instrument by which efforts and strengths of both teachers and pupils are harmonised and co-ordinated
- That revision and assessment form an essential part of our maths teaching
- To ensure that each teacher meets the learning needs of each pupil
- Continuity is maintained without overlap; and there is uniformity of attitude and approach on certain issues.

Vision:

To give all pupils an opportunity to succeed regardless of ability

To provide the child with the necessary skills to live a full life as a child and later as an adult

To emphasise the practical aspects of maths using problem solving and social maths

That maths is fun and can be enjoyed by all members of the school

community

We see maths as being very important in relation to our school and very necessary in the development of all our pupils. It is a subject, which has many values including practical and aesthetic and can benefit all our pupils. Parental involvement will be encouraged as much as possible to support their child's learning in maths.

Aims/Objectives:

We endorse the aims and objectives of the Curriculum for mathematics as set out on page 12 of the Primary Curriculum

- To develop a positive attitude towards mathematics and an appreciation for its practical and its aesthetic aspects
- To develop problem-solving abilities and a facility for the application of mathematics to everyday life
- To enable the child to use mathematical language effectively and accurately
- To enable the child to acquire an understanding of mathematical concepts and processes to his/her level of development and ability
- To enable the child to acquire proficiency in fundamental mathematical skills and in recalling basic number facts

Curriculum:

A. Strands and Strand Units:

(For content overview see Curriculum: Infants p.17; First & Second classes p. 37; Third & Fourth classes p.61; Fifth & Sixth classes p. 85)

- In order to ensure that this familiarity is maintained, if teachers change classes or if new teachers join the staff, we will make the school plan available to them
- Multi-class situations issues, *e.g.* multiple textbooks, use of materials. All classes are taught the same topic where possible and the activities are differentiated as appropriate.

B. <u>Integration:</u>

A cross curricular approach will help the child to make connections between different curricular areas, add to the child's enjoyment of mathematics and encourage the transfer of learning.

C. Linkage:

All the strands of the mathematics programme will be seen and taught as interrelated units in which understanding in one area is dependent on and supportive of ideas and concepts in other strands.

D. Estimation:

Estimation skills are developed in all strands and at all levels.

In teaching Measures at all levels we take every opportunity to have the children practise estimation of

- lengths
- heights
- widths
- distances
- weights
- volume
- capacity

In teaching Number we develop estimation skills by practising a variety of strategies including:

- Front-ended strategy
- Clustering strategy
- Rounding strategy
- Special numbers strategy

(See Teacher's Guidelines pg 32-34)

Estimation Procedure for number:

- Estimate first
- Write down your estimate

- Solve the problem
- Compare your estimate with the actual result

Calculators:

• Children from Fourth class using calculators are encouraged to estimate first what the answer to a problem should be.

E. Mental Maths:

It is school policy that mental arithmetic is a feature of daily mathematical activity.

Resources used include:

- Bingo Boards
- Target Boards
- Number fans
- Digit Cards
- Counting Stick

Games used include:

- Tables Activities
- Magnetic Board
- Set of Maths Challenge 1st 6th
- Problem Cards
- Maths Mate
- Maths Bingo
- Maths Playground Games

F. <u>Collaborative and Cooperative Learning:</u>

Three/four members in a group.

Mixed abilities, allow for a mix of cultural diversity.

Explain and allocate roles:

e.g.

- Co-ordinator
- Recorder
- Go-For

Alternate roles.

Golden Rule in group work:

• Nobody is finished until everybody is finished

Children will be trained in discussion skills before they effectively use them in a group

Discussion skills include:

- Turn-taking
- Active-listening
- Responding positively to the opinions of others
- Confidence in putting forward an opinion
- Ability to explain clearly their point of view

G. <u>Problem-Solving:</u>

The focus is on real life problem solving.

Learning to solve problems is at the heart of maths. The ultimate reason for teaching pupils to learn mathematical skills and concepts is to equip the pupils to use them in a real life context. Therefore the focus is on real life problem solving. A broad spectrum of problems is vital to extend the children's thinking skills.

Types of problems include:

- Word problems
- Practical tasks
- Open-ended investigations
- Puzzles
- Games
- Projects
- Mathematical trails
- Missing, Contradictory, Surplus Data

Strategies that may be used include:

- RUDE (Read, Underline, Draw (picture/table/diagram), Estimate Juinor Infants 2nd class
- RAVE CCC (Read, Attend to Key Words, Visualise, Estimate, Choose Numbers, Calculate, Check) – 3rd to 6th class
- ROSE (Read, Organise, Solve, Evaluate)
- LUV2CC (Look, Underline, Visualise, Calculate and Check)

H. <u>Using the Environment:</u>

The children are learning all the time from the people and materials around them. In our teaching we look to the environment of the classroom, the school grounds, the locality of the school, the children's homes and the wider world for opportunities to make maths more real, more interesting and more fun.

Creating a maths rich environment:

- Maths area in every classroom
- Benchmarks e.g. card marking '1 metre' on wall
- Special box or shelf for maths books
- Puzzle of the day/week on flipchart
- Maths day
- Maths games
- Maths trails
- Number rich environment in Infant rooms
- Playground markings
- Maths Projects
- Maths Puzzles

I. <u>Skills through Content:</u>

- Applying and problem-solving
- Communicating and expressing
- Integrating and connecting
- Reasoning
- Implementing
- Understanding and recalling

The skills "span the content" and the methodologies to develop them are modelled by the teacher.

J. Assessment and Record Keeping:

Assessment is an integral part of the teaching and learning process. All strand units of the maths programme will be assessed using a variety of assessment tools, such as:

• Teacher Observation

The teacher observes the child's activity, written work, discussion and questioning during class or group work. The teacher will note anything that they feel is important in relation to a childs progress in maths

- Interview Method [talking to children formally and informally]
- Error Analysis
- Home work/Parental feedback
- Mastery Records
- Teacher designed tasks and tests

Oral tests of recall skills [tables, counting in groups, number patterns continued] Written tests of numerical competence.

Problem solving exercises that use a variety of math skills. They are communicated to parents at the Parent /Teacher meetings using the Sten Score

- Criterion Referenced tests
- Standardised Tests

Sigma-T/Drumcondra Maths tests will be administered in approx. May/June of each year. Records will be kept safely in a records press. They can also be used to determine children who need additional support from the SET (= or <10%). In line with the schools policy on record keeping, school files are kept until the child reaches the age of 21

K. <u>Children with Different Needs:</u>

Children in each class will show a wide range of ability, attainment and learning styles. Consequently the mathematics programme will be flexible to accommodate children of different levels of ability and will reflect their needs. Evidence of this differentiated approach will be recorded in teachers planning.

Adapting to the needs of the less able mathematical child can include:

- Use easily computed figures when introducing new concepts
- Team Teaching
- While the children will be exposed to all aspects of the curriculum, certain areas must be prioritised
- Adapting the programme to suit their ability
- More individual attention
- Peer Tutoring
- More concrete materials
- Emphasising maths language
- Maths games
- Maths software
- Resources



Learning support guidelines

Suggested strategies for challenging the better able mathematical child include:

- Problem solving books/Brain Teaser Books
- Team Teaching
- Maths games
- Maths software
- Guidelines for the Gifted children (NCCA)

L. Organisation:

Timetable:

• Please refer to the school's policy on '*Time Allocated to Each Subject'*

M. Homework:

Homework assigned in Maths will be based on the school policy on homework which aspires to create a link between home and school. Homework should not require teaching at home. It should be reasonable and achievable. Concepts for homework should be already well established in classroom practice. To prevent parents giving a child the wrong methodology no homework will be given on a particular concept until it has been well established in classroom practice.

Types of homework can include:

- Written consolidation of work done in class
- Tables
- Problem solving
- Practical assignments
- Research
- Collecting data
- Time should be allocated as part of the maths lesson for the correction of maths homework and the review of any problems arising

N. <u>Active Learning and Guided Discovery:</u>

It is school policy to use materials at all levels and appropriately because:

- Concrete materials play an important role in concept development. They provide a link to connect the operational to real world problem-solving situations.
- Experience with concrete materials also facilitates the development of appropriate language as children communicate about what they are doing and what they see happening.
- As they use models children should also begin to understand the symbolism related to the operation
- Models can then be used to help children learn new thinking strategies.

O. <u>Resources and ICT:</u>

Teaching materials will be provided at all class levels and in every strand.

Children will experience a variety of materials and will have the freedom to choose from these when exploring a mathematical task. A variety of teacher designed worksheets, photocopiable master books, teacher reference books and textbooks will be used in order to present work to the children in a variety of ways. Calculators (4th to 6th), and computers will enhance the implementation of the curriculum.

1. Maths Equipment

• Inventory: See Appendix

2. **Textbooks**

- The textbook adopted by the school is 'Busy at Maths' published by CJ Fallon. This
 was decided upon having assessed all available programmes at that time. We believe
 that this programme is child friendly and also helps each teacher to plan for and
 support the learning of Mathematics throughout the school.
- There is a set of 'Table Toppers' or 'Tables Champion' books for each classroom from 2nd 6th classes.
- Also a selection of different mathematic books or graded work cards will help provide extension work for children who have mastered a concept.

3. Maths and ICT

• **Calculators**. Pupils in Fourth, Fifth and Sixth Class learn to use calculators for some maths activities. Children will always be encouraged to estimate first before calculating exact result on the calculator.

Using a calculator guidelines:

- ✓ The first reason for using a calculator is for **checking answers**.
- ✓ If **problem solving** is the main objective of the exercise, use a calculator.
- ✓ Use a calculator for teaching place value:e.g. 7846 change to 7046 (800 has to be subtracted, not 8) 7846 - change to 7806 etc.
- ✓ Use a calculator for teaching tables in 3^{rd} Class.
- ✓ For repeated addition press the number, then press +, and finally press = as often as required. E.g. Press 6: Press + Press = Press = Press etc. (The display should read 6, then 12, then 18, then 24, then 30 etc)
- ✓ For repeated subtraction press the number being subtracted from, then press = as often as required. E.g. Press 60: press -, press 7, press =, press = etc. (The display should read 60, then 53, then 46, then 39 Etc.)
- ✓ For directed numbers press a number, then press , and finally press = as often as required. The calculator will show minus numbers below zero.
 e.g. Press 31: press , press = , press = , press = etc.
 The display should read 31, then 23, then 15, then 7, then −1, then −9 etc.,
- ✓ <u>Mental Strategies:</u> e.g. 85 + 96. The 9 key is broken. How do you do this sum on the calculator? Find ways of making 96 without the 9 key, e.g. 85+ (100 4).
- **Computers.** Like the calculator, the computer is a tool to enhance the implementation of the Curriculum.

Some of the uses of ICT in Mathematics are:

- 1* drill and practice
- 2* adventure programs (See appendix)
- 3* data bases
- 4* spreadsheets (Graphs in micro-soft excel)
- 5* logo
- 6* using the internet to access materials and information

P. Parental Involvement - Home School Links:

Communicating with parents about the correct terminology/language and methods being used, such as:

- Advisory notes as the need arises (e.g. Methods used in teaching subtraction, time, fractions, etc)
- Write language of tables in the table book
- Parent -teacher meetings

Other ways Parents can be encouraged to help their children can include:

- Paired maths
- Encourage parents to buy maths games at Christmas/Birthday times, etc.
- Parents and maths information leaflet, (e.g. Use of the Environment).

Q. Equality of Participation and Access:

Boys and girls are given equal access to the maths curriculum. Strengths and weaknesses are noted and dealt with. Children with special needs and/or learning difficulties are accommodated and lesson plans modified to suit their needs. To this end the Principal and class teachers will discuss with the special education teachers how best to ensure equality of access and participation to all students. Better able children will be challenged appropriately.

R. Individual Teachers' Planning and Reporting:

This whole school plan, and the curriculum documents for mathematics, provides a great deal of information and guidance to teachers in their long and short term planning. All teachers follow the same methods which they feel suit their school and their individual needs' best. Continuity is essential to aid the children's understanding of mathematical concepts. New teachers and substitute teachers on staff refer to the school plan for maths, so that they keep exactly "in touch" with the way mathematics is taught in Caheragh N.S.

The Cuntas Míosúil helps review and develop the whole school plan, and also in the individual teacher's preparation, because it reviews how well topics were taught, and where

things could be improved. Teachers review the methodologies of teaching mathematics at staff meetings, and the staff then tries to update and change the Plean Scoile for maths, if they feel a certain method is not working effectively.

S. <u>Staff Development:</u>

- Teachers in Caheragh National School, have access to current research (from I.N.T.O., P.D.S.T., Dept. of Education, InTouch magazine, etc) as well as reference books kept both by individual class teachers and special education teachers. Each teacher takes responsibility for obtaining materials, but they are also aided by our special education teachers and our Principal.
- Opportunities to share this information come in the form of staff meetings, In-service for staff, discussion on various resources and methods with other teachers on Maths In-service Courses, advisors visiting the school, as well as teaching colleagues speaking to each other about various resources and reference books that they themselves found very useful in their teaching.
- Teachers in Caheragh N.S. are actively encouraged to attend courses in Mathematics by the Principal, special education teacher, Education Centre, and I.N.T.O. Summer courses held in July and August, as well as in-service training provided by the Department of Education.
- Teachers share the skills and expertise acquired at these courses by speaking to other colleagues at staff meetings and by photocopying useful handouts and maths activities.
- Time is allocated at some staff meetings to discuss issues related to the maths programme.
- Teachers avail of internal and external expertise through In-service Maths Courses, Evening Maths Courses, I.N.T.O. Summer Courses. Individual expertise is then passed on to all the staff, to aid the pupils' mathematical skills. We, as teachers realise that we are continually learning and are always looking for new methods of teaching mathematics, so that we give the best educational opportunities to the pupils of Caheragh N.S.
- Team teaching may be applicable with the class teacher collaborating with the special education teacher. The staff of Caheragh N.S. are always open to new ideas and is willing to give things a try!

Success Criteria:

We hope this plan will make a difference to the teaching and learning of mathematics in our school.

 \checkmark We as teachers will communicate on a regular basis and ensure consistency between classes.

 \checkmark We will plan our individual work with due regard for the level of attainment and understanding the child has reached prior to entering our class and when leaving to begin in another class.

 \checkmark We will endeavour to follow the procedures and methodologies consistently as laid out in this plan.

 \checkmark We will know the plan has achieved its aims by seeking feedback from one another at staff meetings, from parents at parent-teacher meetings, from results collated in pupils assessments, from listening to the language the pupils use when working on a problem and explaining how they arrived at an answer.

 \checkmark We will welcome the inspector's suggestions and will pay particular heed to his/her reported findings in the Mathematics area of a School/Subject Evaluation.

 \checkmark We will also welcome feedback from second level schools in the area as to how our past pupils measure up in the area of competency in mathematics.

 \checkmark The greatest indicator of our success will be that the plan will enhance our pupils learning and understanding, will enhance problem solving abilities and will facilitate the application of mathematics to everyday life.

Implementation:

Roles and Responsibilities

The plan will be supported, developed and implemented by the whole school staff under the direction of the Principal who will co-ordinate the progress of the plan, encourage and accept feedback on its implementation. He/she will allow time at staff meetings and on whole school curriculum planning days to assess the work being done and the methodologies being used in every class room.

Timeframe

The plan will be monitored and reviewed in accordance with our school policy review cycle.

Review:

Roles and Responsibilities

We will review this plan in accordance with our school policy review cycle to ensure optimum implementation of the mathematics curriculum in the school.

We will contact the PDST in the area of mathematics to guide our review and help us to identify areas for amending or expanding upon.

The Principal will have responsibility for co-coordinating the review.

Ratification and Communication:

All teachers endeavour to implement this programme from November 2019. A copy of this will be given to each teacher, and will be ratified by the Board of Management.

Ratification of Mathematics Policy

This policy was adopted by the Board of Management on ______

Signed:	Signed:
Chairperson of Board of Management	Principal
Date:	Date:

Date of next review: _____

APPENDIX

Tables:

- Schematic Teaching of Addition Tables
- Language and number operation
- Addition with reagrouping
- Substraction with regrouping
- Standardisation of some mathematical procedures in the school

Addition Tables

- 1. + **0** \rightarrow When I add 0 I make no change
- 2. + 1 \rightarrow When I add 1 I move on one more/move up a step.
- 3. + 2 \rightarrow Using a number strip (e.g. magnetic counters/peg boards).

3 + 2 = 5

Counting stick, number fans

4. **Doubles** \rightarrow one to one correspondence e.g. using counters.

4 + 4 = 8

5. Near doubles $\rightarrow 4 + 5 = 4 + 4 + 1$ or 5 + 5 - 15 + 6 = 5 + 5 + 1 or 6 + 6 - 1

- 6. **Commutative Law** \rightarrow 4 + 3 is the same as 3 + 4.
- 7. **Five Facts**: 1+4, 2+3, Use the five frame

Ten Facts \rightarrow 1 + 9, 2 + 8, 3 + 7, 4 + 6. Use the ten frame.

8. Through ten \rightarrow 10 + 2 = 12; 10 + 4 = 14 etc. Use the ten frame.

9. +8 and +9

• Use the ten frame and/or number line, for example, on a magnetic board using coloured counters.

• Start with 9 + 1 and then move to: 9 + 2 \rightarrow 9 + 1 and 1 outside. 9 + 3 \rightarrow 9 + 1 and 2 outside. Do the same for 9+4, 9+5, 9+6 and 9+7.

E.g:

9 + 5 = 9 + 1 and 4 outside.

- Do the same for 8 addition, for example: 8+3 = 8+2 and 1 outside.
- Do addition practically first (e.g. using counters and number line) and then abstractly.

Multiplication/Division Tables

- Multiplication/Division tables will be introduced as repeated addition and repeated subtraction.
- Learn by saying one four is four, two fours are eight, three fours are 12; four fours etc.
- For division tables say, four into four goes, four into eight goes, four into twelve goes etc.
- Begin with 10 times tables followed by 5 times tables because they are the easiest ones to remember. These two will be the benchmarks for all others.
- Then teach 2X, 4X and 8X, followed by 3X, 6X, 9X
- The <u>concept board</u> and coloured pegs will be used to introduce the tables correctly
- Drill the multiples up/down the multiples board

- Children will be taught strategies to assist understanding and easy recall of the basic facts.
 - 1. Commutative law
 - 2. Doubles
 - 3. One set more/one set less.
 - 4. Use of fingers/ pattern for calculating 9 times
 - 5. Twice a known fact

Activities for Tables

Table Cards

Table Board Games

Bingo

Target Boards

Table Clock

Loop Cards

Head to Head

Resources:

- <u>www.scoilnet.ie</u>
- <u>http://www.woodlands-junior.kent.sch.uk/maths/index.html</u>
- <u>www.teachingtables.co.uk</u>
- www.mathstory.com
- Fun for the Brain
- ICT Games.Com
- Mathsplayground.com
- Computer software: Number Shark, Apex Maths etc.
- Brain Snack
- Maths Mate
- Brainteasers
- Table Toppers
- Tables Champion

Talk and Discussion

The school will adopt a common approach to all areas to ensure continuity and consistency especially when transferring from the Junior groups to the senior groups. This policy will be communicated to parents so they can help children constructively with homework. It will be

done each September by teachers of $3^{rd} - 6^{th}$ classes. The school as a whole will encourage the accurate and effective use of mathematical language.

Language of tables

3+0=3 eg. When children are formally learning tables in first class we use

three <u>plus</u> four <u>equals</u> seven.

5-5=0 Five minus five equals zero

0x2=0

5/5=1

Language and the number operations

Addition with regrouping

1. We introduce the addition of 3 addends horizontally but this must lead to addition vertically.

In senior infants and 1^{st} class $4+3+2=$	is the same as:	4
		3
		+ 2

- 1. Introduce addition with regrouping using denes blocks and the notation board).
- 2. Unifix Cubes, Lollipop Sticks, Bottle Tops etc

+	T 2 2 1	U 8 5
	5	3

• Eight and five is thirteen. How many groups of ten can we make? Put my three units in the units place and carry the one ten into the tens place.

• Demonstrate first with our materials and then do the actual sum as well.

Subtraction with regrouping

1. Introduce subtraction with regrouping using materials as above

Т	U	Т	U	Т	U
² 3	U ¹³ 3				
-	9				
2	4				

• 3 take away 9 \rightarrow you cannot take. Take a ten from the tens side. Rename and put With the units.

• Now we have 13 units in the units side. 13 take away 9 equals 4. We have 4 units left and 2 tens left, that makes 24.

2. When the children are comfortable with the procedure you can suggest writing the sum like this to save time:

Т	U
² 3	
- 1	9
	4

1

STANDARDISATION OF SOME MATHEMATICAL PROCEDURES IN THE SCHOOL

It has been decided to standardize the following mathematical procedures throughout the school in order to help children with learning difficulties.

1) **Subtraction:** From 2nd class on we will use the decomposition method throughout the school.

2) Long Multiplication:	54		54
	X 23		x23
	162 \rightarrow	54 x 3	162
	$\underline{1080} \rightarrow$	54 x20	1080
	1242		

Golden zero strategy

3) Long Division: - say 28 "into"

	0214	d m s d strategy
28	5992	Divide Multiply Subtract Drop Down
	- <u>56</u>	
	39	
	- <u>28</u>	
	112	
	- <u>112</u>	
	0	

4) <u>Time Calculations:</u> Hrs Mins

1	hr	35	mins.
- -		55	

+	2 hrs	<u>45 mins</u> .
	3 hrs	80 mins. (1hr. 20 mins.)

= 4 hrs 20 mins.

Hrs Mins (Regroup)

3hrs 15mins <u>2hrs 45mins</u>

5) **Finding a Fraction of a Number:**

(a) Use Unitary Method. e.g. Find 3/8 's of 72

-	= 72		
1/8	= 9	8	72
3/8	= 27		9
			<u>x3</u>
			27

6) **Given a fraction find the whole number:**

e.g. 7/9 of a number is 42 find the whole number. 7/9 = 42

Pupils draw a picture

1/9 = 6

9/9 = 54 $9/9 = 6 \times 9 = 54$

Fractions: Addition of Mixed Numbers. 7)

2 5/6 + 3 ³/₄ LCD = 12 = 2 10/12 + 3 9/12 = 5 19/12= 5 + 1 7/12 - 6 7/12

8) Subtraction of mixed numbers:

LCD = 103 1/5 - 2 7/10 =3 2/10 - 2 7/10 = 2 12/10 - 2 7/10 = 5/10= 1/2

Fractions: Fractions will be introduced by using Fraction walls and Fraction Circles: Fraction Pizza, Magnetic Fractions, Fraction Wall Board e.g.

1 unit = 2 halves = 4 quarters

Paper folding will also be used to explain the equivalence of fractions:

 $2/8 = \frac{1}{4}$ $4/8 = \frac{1}{2}$ $6/8 = \frac{3}{4}$

(Rice, string, fraction & decimal playing cards)

When dealing with decimals we will use money so that children will DECIMALS: understand the place-value of the digits within a decimal number and learn from the physicality of the operation:

e.g.

€38	÷	38	=>	т	U	÷	1/10	1/100	Money
				3	8		3	8	Place value

Language: The decimal point is used to separate the fractions from the whole numbers.

Decin	nals: The decimal point ne	ever moves:	
e.g.	2.4 + 3.76 + 1.957	2.400	
		3.760	Snowman effect
		<u>+ 1.957</u>	

Resources:

Numeracy Resources Infant Room

- Empty number line
- numeral track
- pattern cards
- ten frames
- numeral cards
- number fans
- number formation cards

- hundred squares
- 1-20 counting frame
- 2 colour counters
- Connecting people
- Counting and sorting set
- Peg board and pattern cards
- Cubes
- Discs/Counters
- Farm Animal Counters
- Plastic Vegetables
- Proportional Bear cards
- Proportional Bears
- Sorting circles
- Sorting Trays and bowls
- Threading cards
- Threading Spools
- 0-10 counting strips
- Abacus (two Row)
- Counting Beads
- Counting Fans (1-10)
- Counting Stick
- Dice foam
- Insect counters
- Lollipop sticks
- Maths Wall Chart 1- 20

- Number line selection
- Numicon Set
- Dice (Small)
- Measuring Jugs
- Rulers Selection
- Small Measuring Beakers
- Balance
- Clocks
- Teacher demonstration clock
- Games e.g. addition and subtraction snap, bingo etc
- Interactive whiteboard
- Target boards
- CJ Fallons online resources
- Metre stick and strings
- Geometric Shapes 2D
- Geometric Shapes 3D
- Online resources e.g. topmarks.co.uk
- Ready, Steady Go Maths Manual
- Magnetic money and cash register
- Capacity measurement set
- Trundle wheel
- Sorting objects
- Partitioning boards
- Linking cubes
- Dry erase boards

• Digital resources-iPad games, Busy at Maths online resources,