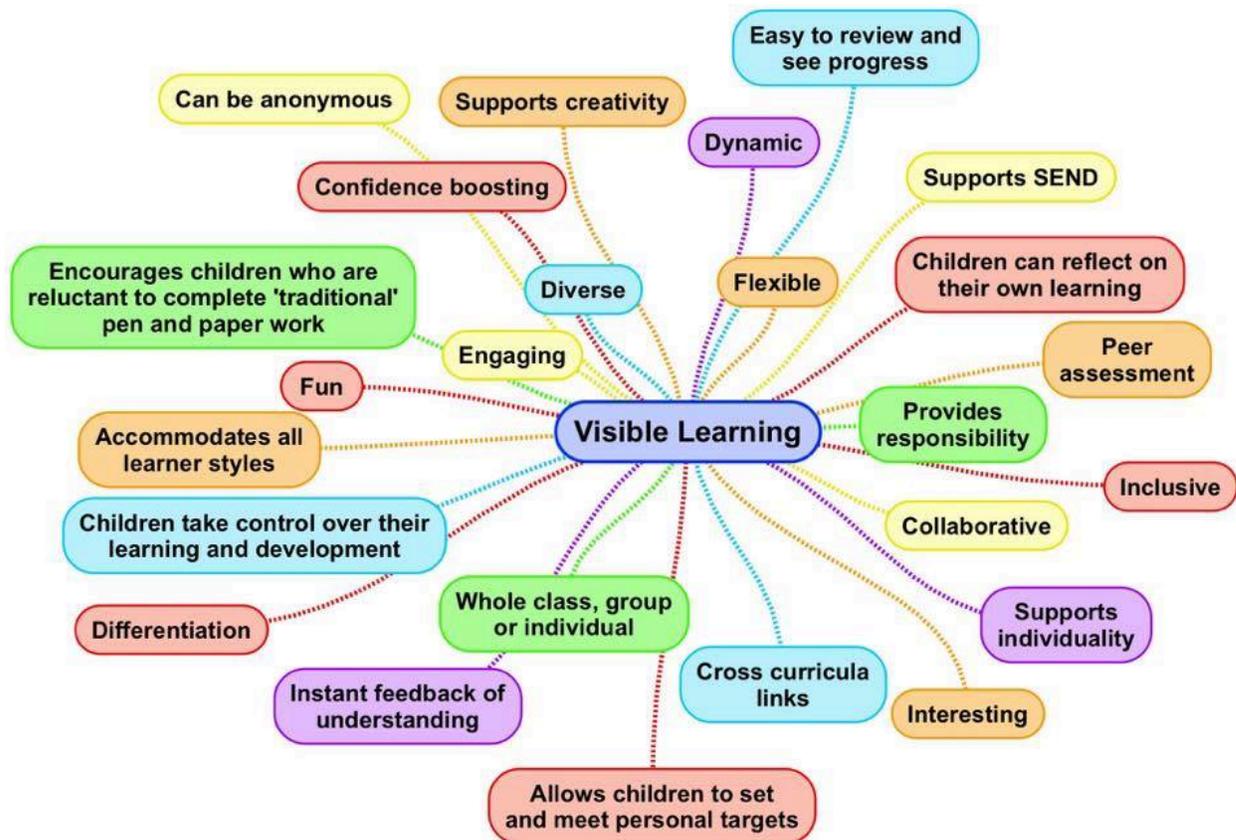


MATHEMATICS POLICY

	Name of School	Whybridge Junior School
	Policy review Date	1 st September 2018
	Date of next Review	31 st August 2019
	Who reviewed this policy?	Miss A Fairbank

Our teaching pedagogy is rooted in **VISIBLE LEARNING**





MISSION STATEMENT:

At Whybridge Junior School we aim to provide opportunities for mathematical experience at a range of levels, relative to the potential ability of all children.

INTRODUCTION:

Mathematics is relevant to and is useful in the real world around us. It is a way of making sense of aspects of the world in an accurate, concise and scientific way. It is the study of patterns and rules and the ability to communicate ideas. Through their growing knowledge and understanding, children learn to appreciate the contribution made by many cultures to the development and application of mathematics.

RESPONSIBILITIES :

AIMS:

- To allow children to use and develop their mathematical skills, concepts and knowledge in as many 'real life' situations as is practical;
- To promote confidence and competence with numbers and the number system;
- To develop the ability to solve problems through decision making and reasoning;
- To develop a practical understanding of the ways in which information is gathered and presented;
- To give children the opportunities to use mathematics as a tool in a wide range of activities and in a variety of subject areas;
- To explore features of shape and space and to develop measuring skills;
- To allow children to enjoy mathematics and to feel confident as mathematicians in the work they do.



- To ensure children learn the skills such as:
 - Trial and improvement
 - Pattern spotting
 - Working systematically
 - Finding rules
 - Explaining answers effectively
 - Making predictions and testing them

These will allow children to build up perseverance and resilience when faced with challenges.

TEACHING & LEARNING:

At Whybridge, we use a variety of teaching and learning styles in mathematics.

This range includes:

- Child led learning where the children learn from each other and they model the methods.
- Teacher modelling to the class or group. These will occur particularly when introducing or reinforcing particular concepts or methods;
- Discussion between the teacher and pupils. This gives opportunities to clarify and correct ideas and for teachers to assess a pupil's level of understanding. Children are encouraged to ask as well as answer mathematical questions.
- Individual and group work using activities set by the teacher. These could be a variety of types of work:
 1. Practical tasks
 2. Investigative tasks
 3. Written work
 4. Oral work
- Written and verbal explanations by pupils of the work they have carried out, the results and the appropriate conclusions.



- The children have the opportunity to use a wide range of resources such as small apparatus, number lines and number cards in order to support their work.
- Peer tutoring. This gives the children the opportunity to consolidate their own learning whilst teaching their peers.

ASSESSMENT:

Teachers will continually assess using CAT sheets throughout the year to monitor children as to whether they are emerging, developing, secure or mastering the expectations set for the year.

In order to support teacher judgments teachers will use Rising Stars tests each half term as well as making their own judgment on a child's progress. Children will also self-assess their own work using the monkey mats found in the back of books.

A detailed structure of assessment can be found in the Assessment policy.

TIME ALLOCATION:

At Whybridge, Maths lessons take place for the majority of classes every morning, with some exceptions due to timetabling of other subjects. It is recommended that mathematics lessons take place in the morning. Currently every mathematics lesson lasts for 70 minutes.

There is no set format for a lesson however it should include:

A mental and oral starter,

Teaching input for the main activity/practical work/whiteboard work/ WALT and success criteria shared etc.

Instruction/explanation of main activity

Main activity

Mini plenary

Plenary

SEN PUPILS:



At Whybridge, we teach mathematics to all children whatever their ability and individual needs. This includes those who are more able as well as those children with particular learning difficulties.

Learning Plans are created for children with special needs, which may include specific targets relating to mathematics, where appropriate. Intervention groups are made available to these children who will receive additional help from the class teacher, SENCO, classroom assistant or parent helper as appropriate.

COMPUTING OPPORTUNITIES:

Computing is particularly useful for mathematical tasks. Each class has a computer and where possible this is used to support our mathematics teaching and learning as it provides visual and interactive opportunities which help the children to understand concepts more quickly. Teachers also make use of their visualiser and use this to aid teaching and learning in mathematics. Children should be encouraged to use computing during the lesson as well as the teacher.

Computing is used throughout the school to communicate results, produce graphs and tables, create patterns and provide feedback for assessment for learning. Teachers can use the computing suite to enhance the teaching and learning of mathematics and can also use iPads or laptops in their classes during the numeracy lesson.

The use of calculators follows the recommendations of the new curriculum. 'In the primary years, the calculators main role in mathematics lessons is not as a calculating tool, since children are still developing the mental calculation skills and written methods that they will need throughout their lives. But it does offer a unique way of learning about numbers and the number system, place value, properties of numbers and fractions and decimals.'

CROSS CURRICULAR OPPORTUNITIES:



Mathematics crosses a number of other curriculum areas. All schemes of work indicate mathematical links. This reflects the real world where tasks often involve a variety of subject skills.

CURRICULUM PLANNING AND PROGRESSION:

Staff follow a yearly overview based on the new 2014 Curriculum. Planning is organised into mathematical areas and teachers are able to use their knowledge of the class to decide which order they should be taught. Each year group uses their Planning, Preparation and Assessment time to plan their maths lessons carefully and gather resources as appropriate. The plans are adapted by the class teachers to suit the children's needs in their class and to incorporate computing and other activities to stimulate engagement and interest. Differentiation is carefully planned for and incorporated into all lessons. This is monitored closely by the subject leader and Head Teacher.

Using and Applying is a key area and all teachers try to use ways in which children can apply what they have learnt to real life problems and situations. Children are encouraged to solve problems and apply their knowledge, skills and understanding. Teachers are encouraged to use aspects of Using and Applying on a regular basis. This will be in the form of an investigation or problem solving activity.

At the end of each term, the subject leader will gather samples of children's books and compare these across the Key Stage. The subject leader will then feedback to the head teacher regarding the progression across the Key Stage.

Teachers will use Class Targets to highlight aspects of weakness in maths. The class teacher will plan more activities surrounding this area into their teaching and work towards consolidating learning. This will help to fill in the gaps in children's knowledge and understanding.

RESOURCES



All classrooms have a wide range of appropriate apparatus. Children are expected to respect and use the equipment responsibly. There is a central resource area where other practical materials and teacher books are kept. The subject leader is responsible for maintaining existing materials and ordering new stock.

MARKING POLICY

Marking should relate to the lesson objective and comments ought to reflect next steps. If the work is of an investigational nature, comments should indicate the processes used and how the task was broken down. A detailed structure for marking can be found in the Marking policy.

MONITORING:

Monitoring of the standards of children's work is the responsibility of the subject co-ordinator. Recording is a way of communicating mathematical ideas and understanding to others. Children record their work in various ways as is appropriate to each task. The subject leader collects samples of work from each year group periodically.

The subject leader gives the head teacher an annual summary in which she evaluates strengths and weaknesses in the subject, and indicates areas for further improvement. This is then reported to the board of trustees.

PARENTS

Parents are invited into school in the autumn and spring term in order to discuss their child's development in all curriculum areas including Mathematics.

At the beginning of each academic year, parents receive information on the objectives and methods their child will be working on throughout the year. In year 6, the SATS tests are explained to parents and parents are given targets for the children to work on at home as well as in school.



Signed:
Miss Fairbank

