**Mathematics Policy**



**Review date : January 2022**



**KENNINGTON PARK ACADEMY**

**MISSION STATEMENT**

**Our primary aims are –**

**•To offer a secure and carefully structured environment, where disaffected and/or permanently excluded pupils develop as confident and independent learners; able to achieve their best outcomes.**

**•To facilitate and support the successful reintegration of Pupils into schools.**

**•To promote the values of citizenship, courage, friendship, equality, determination, inspiration, mutual respect and tolerance.**

**1.0 Introduction**

1.1 In developing our Maths curriculum we have carefully considered and balanced the following factors which amongst others underpin the thinking behind all our policies;

1.2 Our pupils who have had disruptive and fragmented school experience, need to feel secure, safe and eager to learn.

1.3 These experiences of loss of learning opportunities mean that we must place special emphasis on the basic skills of numeracy and literacy - both as discrete subjects and across the whole curriculum.

1.4 Our pupils arrive bringing with them a variety of learning experiences and knowledge.

1.5 Our pupils may arrive at any time in the school year and at any time in their primary school career including short stay provision.

1.6 Our pupils learning experiences here at KPA must have as a consequence some improvement in the likelihood of their successful reintegration.

**2.0 Aims**

2.1 Staff at the KPA agree the following aims for the teaching of mathematics.

* 1. We seek to provide experiences which will enable our pupils to:
* participate as fully as possible in the Numeracy curriculum of their eventual permanent educational provision
* maintain a positive attitude to Maths
* build on mathematical knowledge already acquired
* use and apply Maths in everyday situations with confidence
* understand Maths through a process of investigation, experimentation and theoretical concepts
* exploit the advantages of the use of information technology in Maths.
* appreciate the beauty and creative content of Maths
* become confidently numerate.

# 3.0 Pupils' Mathematical Activities and Experiences

3.1 Although as an alternative provision academy we are not required to teach the full National Curriculum, we choose to follow The National Curriculum for Mathematics guidelines, as closely as is practicable and therefore have the same age- related objectives as are outlined therein.

3.2 We try to arrange learning experiences for each child which match his/her stage of development, take account of his/her SEMH and enhance his/her access to the National Curriculum.

3.3 We also need to ensure that our mathematics curriculum offer does not further disadvantage our pupils and reflects that available in most primary schools, as far as is possible.

**4.0 Teaching time**

4.1 To provide adequate time for developing mathematical skills, we have revised our timetables so that Maths is taught in larger chunks across the week – eg 2 x Maths mornings a week. Problem-solving is also taught once a week

4.2 Within these lessons there will be a good balance between whole-class work, group teaching and individual practice.

4.3 A lesson will be typically, but not exclusively, structured like this:

♦ **Oral work and mental calculation** (about 5 to 10 minutes)*A consistent approach to developing skills in number.*

*This will involve whole-class work to rehearse, sharpen and develop mental and oral*

*skills.*

♦ **The main activity**

*This will include both teaching input and pupil activities (including computer maths programs) and a balance between whole class, grouped, paired and individual work. The main activity may be split into chunks –work completed in books, a Maths game, reinforcement using Mathletics etc.*

♦ **A plenary**

*This may involve work with the whole class to sort out misconceptions, identify*

*progress, summarise key facts and ideas and what to remember, to make links to*

*other work and to discuss next steps. A full plenary may not always be appropriate in the middle of a project. Plenary sessions may also take place at any appropriate point in the lesson*.

4.3 Mathematics contributes to many subjects within the primary curriculum and

opportunities will be sought to draw mathematical experience out of a wide range of

activities. This will allow children to begin to use and apply mathematics in real-life

contexts**.** It is important of create opportunities to practice numeracy within all areas of the curriculum

**5.0 Out-of-class work and homework**

5.1 The mathematics lessons will provide opportunities for children to practice their skills and knowledge, to develop and extend their techniques and strategies, and to prepare for their future learning. These opportunities may be extended through

out-of-class activities/homework. The activities will be simple, short and focused and will be referred to and valued in lessons. In particular the learning of tables exemplifies our practice. Pupils are encouraged to celebrate tables and other number skills acquisition in special weekly Number celebration assemblies - collecting stickers as a reward.

5.2 We actively try to develop parent/carer participation in pupils’ learning experience by encouraging pupils to seek home support to complete set tasks. We achieve this by ensuring that a homework problem/investigation is given regularly in addition to the pupils’ focus multiplication/division table, and children told to get their families to help them.

**6.0 School and Class Organisation**

*6.1 How we cater for pupils who are more able*

Able pupils are stretched through differentiated group work and extra challenges. When working with the whole class, teachers will direct higher level questions towards the more able and be vigilant in maintaining their interest and involvement.

*6.2 How we cater for pupils with particular special needs*

Teachers involve all pupils through differentiation and provide necessary support

through targeted use of resources and adult help.

All children benefit from the emphasis on practical, oral and mental work and participation in watching and listening to other children demonstrating and explaining their methods. However a pupil whose difficulties are severe or complex may need to be supported with an individualised programme (through staffing, task, resource or time support) in the main part of the lesson.

**7.0 Class Resources**

7.1 Each class is resourced with a basic amount of equipment, with some resources allocated to particular year groups. These can be found in the class areas. Other equipment used less regularly or mainly utilised can be found in blue class. All staff and classes are encouraged to ensure that equipment is shared and available to all who have need of it.- as long as resources are returned to their original place when no longer in use.

# 8.0 Other Resources

8.1 We believe that no one scheme is comprehensive enough to meet all the mathematical needs of our constantly changing pupil roll. Therefore, we use material from many sources to ensure that pupils are offered appropriately differentiated and stimulating tasks.

**9.0 Information and Communication Technology**

9.1 ICT is used in various ways to support teaching and motivate children’s learning.

9.2 Computers (desktops or laptops), calculators, cameras or other audio-visual aids are used across a range of mathematical topics. KPA has welcomed the availability of some excellent Maths and general subject programs. Pupils formulate and operate their own maths learning extension programs by using programs such as Mathletics. These programs also allow for monitoring and tracking progress.

**10.0 Planning**

10.1 Medium-term plans are submitted as termly or bi-termly. The main topic web will outline elements of Maths that fit into the main theme. These Maths elements make up part of the teacher’s Maths planning for the term.

Planning and activities may be sourced from agreed on-line schemes like Hamilton Trust which the school has a subscription for, other published resources or teachers’ own ideas. These will be adapted to meet the needs of the class. Teachers use the PLT template provided .

10.2 Specific tasks, activities and grouping for the main parts of the lesson, success criteria, resources, vocabulary, use of support and any homework that may be set can be of course included in lesson plans generated as necessary.

10.3 On a regular basis, plans may be amended/modified to incorporate necessary changes identified by the previous day's evaluation. This ensures balance, appropriate pace and planned constructive feedback. It also enables staff to target individual pupils’ areas of deficit across the curriculum. For example, a pupil who has yet to be confident in their concept of time can be given practice in any other subject session by receiving the instruction;

“You need to complete this by 12.15”.

Or

“In 10 minutes time you will…..”

Or a pupil identified as needing practice in measurement could, be asked

“Please open the window 30cms”.

**11.0 Assessment**

11.1 When pupils first attend KPA, their mathematical level of achievement is tested to obtain a baseline reading using the WRAT5 assessment tool. This also allows us to gauge with some accuracy those areas of mathematical functioning which may require urgent attention for an individual child. Pupils are then re-tested at regular intervals to ensure targeted attention to progress. We also take into consideration information from the previous mainstream placement.

11.2 Within this framework, on-going assessment takes place at 6 x points in the year- PLT data collection – using Go4Schools . These assessments are used to inform teaching in a continuous cycle of planning, teaching and assessment. Teaching a unit of work will need careful initial and ongoing planning, informed by assessment of children’s learning.

11.3 Short-term assessments will be an informal part of every lesson to check understanding and give the teacher information, which will help to adjust day-to-day lesson plans.

11.4 Pupil Progress Meetings take place 6 x a year and provide the forum for staff to analyse the progress of individuals/groups and to set targets and plan interventions.

11.4 Long-term assessments take place through compulsory National Curriculum mathematics tests for pupils in Years 2 and 6. Teachers will also draw upon children’s WRAT5 test results, , Go4Schhols data, their class records of attainment against key objectives and supplementary notes and knowledge about their class to produce a summative report based on the current government guidelines for assessment. Information will then be reported to parents .

**12.0 Self-Assessment**

12.1 Children are be involved in assessing their own work. The LO template in books includes a traffic light activity where children can RAG their views .

**13.0 Target Setting**

13.1 Layered target setting is used each term. Targets are based on information gathered from monitoring and evaluation and targets are put in the front of the Maths books.

**14.0 Assessment and Record-keeping**

14.1 Marking and comments made in pupils’ exercise workbooks and folders are also used as a record of pupils’ progress. Teachers and Learning Advisors carry out formative assessments in the course of their teaching. They observe pupils at work and provide positive feedback to pupils whilst determining the next stage of their mathematical learning. Intermittent assessment also takes place through

* short oral tests and quizzes
* tasks which test children’s skills and knowledge
* re-testing using published or our own baseline tests
* discussion with pupils and setting learning or performance targets
* SATS for pupils at the end Key Stages 1 and 2
* WRAT5 assessments
* PLT Ready To Learn Assessment
* Go4Schools

14.1 Parents or carers are invited termly to discuss progress and collaborate in setting new targets at our Learner Review Meetings. Tracking reports contain a précis of pupils’ maths achievement and teacher assessment in relation to a childs age-related expectations.

# 15.0 Classroom Organisation

15.1 Classrooms are organised to facilitate Maths work by ensuring that:

1. there is a minimum of 2 computers available for pupils’ use according to their planned daily task list;
2. there is adequate space to move around and collect equipment **with permission** without having to disturb others;
3. there are facilities for pupils to work in groups, pairs or individually;
4. most maths resources are stored within classrooms in a designated maths area, so that pupils have access to the equipment required to complete a task;
5. resources and equipment are clearly labelled.
6. pupils’ mathematical work is displayed as readily as that of other subjects and each class has an area designated as ‘The Maths Wall’;
7. there are permanently displayed reference posters e.g. multiplication chart,

# 16.0 Equal Opportunities and SEN

16.1 In agreement with PLT policies on Equal Opportunities and on Special Educational Needs, KPA staff believe that all children irrespective of class, origin, gender or physical ability should have equal access to all areas of the curriculum offered. Our academy’s policy takes account and makes use of the cultural diversity within our school, our local and world society. Mathematics is used, as all subjects are, whenever possible to put this policy into practice.

16.2 We aim to develop the potential of all our children by addressing their SEMH needs as well as providing them with appropriate mathematical experiences. All pupils including those with learning difficulties in addition to their SEMH needs are helped by our maths planning on an individual basis. Pupils who are particularly able in mathematics are also given support so they can reach their potential.

# 17.0 Mathematics Subject Leader’s role

# Support staff with planning

# Support staff with teaching

# Support staff with resourcing the curriculum.

# Maintaining an up-to-date knowledge of INSET programmes, resources and initiatives .

# Identifying the support needed by the staff and supporting requests for CPD or arranging staff group sessions if needed.

# With the head teacher setting clear realistic targets for raising standards assessing the progress for each class.

# Monitoring teachers’ planning, teaching and assessment –via Learning walks, book scrutinies and anaylsis of planning

# 18.0 Health and Safety

# 18.1 Equipment is expected to be in good order in each classroom and the use of potentially dangerous items, e.g. compasses, always used under close supervision.

# 19.0 Monitoring and Review

19.1 The Headteacher and SLT will be responsible for ensuring that this policy is practised and evidence of its efficacy checked through;

1. Learning walks
2. Checking Planning and Assessment Records.
3. Monitoring pupils books and teachers’ marking
4. Talking with pupils about their work.
5. Consultation with the subject leader and other staff
6. Tracking pupil progress.

19.2 The Maths Polic will be reviewed annually by the Maths subject leader, supported by staff and amended as necessary. Minor changes may be made to the written policy after on-going development and training reveal the need for them. These may be incorporated as amendments which need not attract an official review.

Next review January 2022

Elizabeth Wickers – Maths Subject Lead.

COVID 19 ADDENDEUM

* **Remote learning** – A big emphasis is placed upon Maths work set for remote learning. This is done via Google Classroom, Mathletics and hard packs of work -suitably differentiated sent home. Staff use individual targets to set work. Every child has access to our whole school maths programme differentiated to meet their needs. During Covid 19 we have ensured that all children have their log-in details and can access set work given by the teacher from home –using Google Classroom and Mathletics.
* **Planning, Monitoring and feedback** - We will ensure that we check in daily through the online portal and via phone calls to support any concerns and difficulties the children are having. We encourage pupils to submit work via Google Classroom or email work to the staff. Whole class planning will be difficult due to the pandemic, however we must ensure that every child continues to receive on-line/school lessons that meet their needs. Teachers will continue to assess the children’s work through checking in with the child, assessing mathletics data and checking work that is sent in to school. All planning should continue to show that children are working at their level and the aims to progression. During the pandemic, teachers and support staff must ensure that all verbal feedback is recorded after on-line session with the child. Children in school will continue to receive daily feedback. SLT and the Maths Subject lead will ensure that they meet and discuss concerns feedback that has arisen from the children learning at home.
* **Classroom resources** - Each child to have their own stationary equipment. Any resources that must be shared are to be cleaned between each child handling them.
* **Classroom organisation –**

1. All children and staff are required to socially distance.
2. Tables are set with sufficient space to ensure safety.
3. Each child has a laptop with their name on it that is cleaned after every session.
4. Each child has their own stationary bag and will not share equipment. This is to ensure there is no cross-contamination.
5. Equipment that has to be shared will be cleaned thoroughly, using the cleaning liquid provided by the premises officer.