



**Hunslet Carr Primary School
Leeds**



Maths Clarity Document

High Expectations, Caring, Positive Attitudes & Successful



Rationale

The Why behind our Maths:

Our children enter school with limited language skills, so we want to create **fluent, confident** mathematicians who enjoy maths and can talk with confidence using mathematical language and vocabulary. Our children enter school with limited social skills, so we want our pupils to be able to manipulate number and use and apply known methods to **solve problems** and **reason** mathematically as part of a team and independently. We want our pupils to be curious, investigative and to be able to explain their mathematical thinking, presenting their thoughts and ideas in different ways, as well as accepting of the ideas of others; all skills that will help them in any future career path in everyday life.

Being dedicated to giving children the best start in life, it is vital we set out clearly what we expect the teaching of maths to look like.

In addition to being explicit in what we expect from the teaching of maths, we are also focusing on children's ability to speak and be clearly understood. One of the ways in which we hope to do this is through the expectation that children always answer in full sentences in all lessons. For more information about our expectations around speech and language please see our Reading and Phonics clarity document.

The following document builds on the excellent practice we already have taking place in our school following our Maths No Problem! training and clearly explains what maths at Hunslet Carr looks like.



Mastery Maths in EYFS

Successful teaching of Mastery maths in the EYFS lies within the context of high quality classroom provision, based within our indoor and outdoor learning environments. Our mathematically rich environment provides a range of contexts for our children to explore concepts using different representations on multiple occasions (using concrete, pictorial and abstract resources). **See appendix a)**

a)



It is important that we focus upon deepening our children's mathematical understanding, and not accelerate through learning. The emphasis is placed on the enjoyment of mathematical ideas, language and activities as well as purposeful interactions with confident adults.

Our children are encouraged to communicate their mathematical thinking in a wide variety of ways including; manipulation of resources, gesture, pointing, body language, mark-making and talk. This allows our children to acquire a secure and long-term understanding of maths, making continual progress in order to move onto topics, which are more complex.

Planning

Mastery Maths in our EYFS is planned for in a range of ways including daily focussed sessions, continuous provision and focussed interventions. Our curriculum is designed to focus on the six key areas of mastery in considerable depth. These areas are:

- Cardinality and Counting
- Comparison
- Composition
- Pattern
- Shape and Space
- Measures

We use a range of resources to support our curriculum including guidance from the White Rose Maths Hub, Number blocks, NCETM Early Years Area, NRich and Learning Trajectories.

Our current curriculum explores each number in depth, focussing on its links to real life as well as functions. For example, when exploring the number 3, we look at the '3'ness' of 3, 3 sided shapes, 3 step patterns and real-life links such as the house number 3 and being the 3rd house in the road. The children are encouraged to explore patterns within numbers and in turn innately experiment with relationships between our six key areas of mastery.

Assessment

Assessment for mastery includes continual observation and actions, which are shared regularly through dialogue with practitioners, parents and children.



Maths No Problem! (MNP!) – Year 1 - 6

Planning

As a school we have mapped out the Maths No Problem! Chapters for all of the year groups from Year 1 – Year 6. When each chapter and unit of mathematics is taught can be seen in the long-term plans for each year group **(see Appendix 2)**.

The MNP! Chapters are planned extremely carefully so that each lesson builds upon the prior lesson, providing the children with solid foundations and enabling them to gain a deeper understanding of each mathematical concept. As a long time is spent on each chapter and unit of mathematics, the units should not need to be revisited throughout the year. When children progress onto the next chapter, they can build on their prior understanding.

As a school our planning for MNP! has evolved and teachers are now expected to plan maths together during PPA. This is to allow teachers the opportunities to look on the MNP! HUB website together and consider how they will teach the lessons to ensure they have the greatest impact possible. Teachers will consider key questions, STEM sentences, use of manipulatives, and opportunities for journaling. They will plan this together on the MNP! “S Plan,” which gives an overview of the whole chapter and the mathematical journey the children will go on. Teachers create the S Plan using the MNP! HUB, Textbook and Workbooks **(see Appendix 3 for S Plan)**.

Once agreed, the S Plan should be used to help create the SMART Notebook slides that will be used in both classrooms over the course of the unit. By reducing the amount of written planning required, we hope to allow teachers the chance to focus on the quality of their maths teaching that is matched to the needs of their children, the resources in their room, the questions they ask children, and the process of teaching maths rather than duplicating work.



The Maths No Problem! Lesson Structure

Lesson Phase	Outline
In Focus	A problem or stimulus is presented to the pupils and they're encouraged to explore and discuss it in groups, using concrete resources. The teacher and TA use this time to observe their responses and to prompt further exploration with questioning to ensure that all pupils are challenged.
Let's Learn	The teacher gathers together the pupils' ideas for solutions and the class discuss them as a whole group, often re-exploring new suggestions. The teacher then focuses the children in on the methods that they will be using in that lesson. The teacher guides the children through the solutions to the problems they have been discussing, with a focus on the required methods. There's a greater emphasis on teacher explanation at this stage.
Guided Practice	The teacher begins by guiding the class through examples of similar problems to the ones they have just done. The pupils can discuss how to solve the problems with their talk-partner. Then, pupils work through more examples independently with the teacher and TA supporting them if necessary. When the teacher believes the pupils are ready, they can move on to the independent practice.
Independent Practice	Pupils work independently in their MNP! Workbooks on the set pages. All questions are typified by their mathematical variation – they are designed to extend pupil's thinking rather than just be lots of examples presented in the same kind of way. There will be a non-negotiable question number that all children must complete by the end of the lesson, this is decided upon by the teachers when they are planning the lesson as it will match with the desired learning objective and purpose for the lesson.
Journaling <i>This lesson phase can be moved around to fit in where appropriate – often after In Focus, Guided Practice or the Independent Practice. The teacher will plan in journaling for where it works best for the intended outcomes and purpose.</i>	Pupils record what they have been doing in their maths journals – there is an emphasis on showing things in different ways and effective communication of thinking. This is where the teacher can really assess a child's understanding and challenge them to delve deeper.



In Focus

Each maths lesson will begin with the pupils being given a problem or stimulus, known as the “In Focus.” The pupils should explore and discuss the problem with a partner or in a small group in mixed attainment levels. This is a short amount of time **5-10 minutes**, where the pupils learn through exploration and they are encouraged to find more than one method, with the journey being more important than the answer. For those pupils who have to tell the teacher the answer as quickly as possible, teachers might ask them to tell them it or write it down but then spend time exploring how many different ways they can find it or explaining to somebody else how to do it.

As the focus of this phase of the lesson is on pupil discussion and exploration, the teacher and TA should use this time to observe and listen to what the pupils are doing. They shouldn't offer any support but could prompt further exploration and challenges through their careful questioning. Pupils should be using concrete resources and manipulatives during the In Focus and they may do drawings.

Let's Learn

This is the stage of the lesson where the teacher does most of their explanations and teaching but remembering the mantra “teach less, learn more.”

Following on from the “In Focus,” the teacher gathers together the pupils' ideas for solutions, after listening carefully to their discussions during the In Focus. The teacher provides the class with opportunities to discuss the solutions and methods as a whole group, often asking them to re-explore new suggestions. As the teacher will have looked carefully ahead at the guided practice and independent practice, they will then focus the children in on the methods that they will be using in that lesson. The teacher will guide the children through the solutions to the problems that they've been discussing, with a focus on the required methods. This stage of the lesson may take **15-20 minutes**. This stage of the lesson process has the greatest emphasis on teacher talk and explanation.

Guided Practice

Similarly to the In Focus, this stage of the lesson should involve the children discussing their work with a partner (during the In Focus and Guided Practice a silent maths classroom is a suspicious one!).

The Guided Practice stage starts with the teacher guiding the class through examples of similar problems to the ones they have just done. The pupils discuss how to solve the problems with their talk-partner. The teacher and TA go and stand near the children they identified as struggling during the In Focus and Let's Learn, so that they can offer them supportive/scaffolded questions if needed. When the teacher believes that the pupils are ready to do the non-negotiable question that they identified during their planning, they set the children off onto the independent practice. The Guided Practice stage of the lesson should last for **approximately 10 minutes**.



Independent Practice and MNP! Workbooks

During the independent practice stage of the maths lesson, the children should all be working in their MNP! Workbooks. At this stage of the lesson there should be very little talking, as the children should have had the methods explained by their teacher during Let's Learn and then had the opportunity to explore the methods with a partner during the Guided Practice. This stage of the lesson should take around **10-15 minutes** and acts as an assessment tool for the teacher to see how well the children are able to answer the carefully varied maths questions. All pupils work on the same questions and must at least complete the non-negotiable question relating to the purpose of the lesson (this is set and chosen by the teacher during their planning of the lesson and should be clear on the S Plan). Pupils should no longer need concrete resources but these are still accessible so that they can use them if they feel the need to.

Please note if children need support to do the workbook (which should be an extremely rare occurrence), then a note should be made in their workbook. If they don't do any work in their workbook then a photo or post-it note should be stuck inside their journal to show and explain what they did during that lesson.

The MNP! Workbooks can be self or peer-assessed at the end of the lesson; marked by the TA or teacher during the lesson or marked by the teacher afterwards. There is no expectation for next steps to be given for the MNP! Workbooks, they are used as an assessment tool to assess how well the children have met and understand the lesson's focus and purpose. Opportunities to deep mark and set the children next steps will be given through the marking of children's journals.

Journaling

This stage of the lesson is flexible in that it can fit in different places so as to suit where deemed most appropriate by the teacher. The teacher will plan in different types of journaling (explained below) and put them into the position in the lesson where they will have the greatest impact upon the intended outcomes and lesson purpose – this is often after the In Focus, Guided Practice or Independent Practice. Pupils should spend **approximately 10 minutes** on journaling.

Inside the maths journals, pupils record what they have been learning about – there is an emphasis on showing things in different ways and effective communication of thinking. This is where the teacher can really assess a child's understanding and challenge them to delve deeper.

Types of journaling:

Descriptive – Children describe the methods they have used; they could write a set of instructions for an absent friend so that they can solve the problem.

Evaluative – Children make choices and justify them; why did they choose that method? How was that method more helpful than the other?

Creative – Children develop their own methods and stories; write a story for a number sentence or today's problem. Invent a new method and name it.

Investigative – Children record their findings after exploring a problem; did you see any patterns? What helped you in this investigation?



How many solutions can you find to this problem where all the shapes are a different 1-digit figure?

$$\triangle + \square + \bigcirc = 21$$

Formative - Children demonstrate their understanding so that you can see how much progress they've made. There are a variety of different questions styles for this such as: Which question did you find the hardest and why?

Choose a problem that you've solved and you're proud of and explain why. Can you find and correct my mistake, explaining what I did wrong?

Same Day Intervention/Post-it Note Intervention

This is a really important and key part of MNP!

When planning the lessons, the teacher will look at each individual lesson to set the lesson purpose. The teacher will then look at the workbook pages for each lesson and decide upon a non-negotiable question number that all children must complete for that lesson. This is to ensure that all children are at least meeting the lesson purpose for every lesson.

At the end of the lesson, any children who have not completed the non-negotiable question will have to do so before the next day's MNP! Lesson. This is to ensure that all children come into the next lesson with the same foundations as each lesson builds upon the prior one. Equally, any children who have really struggled or got loads of their questions wrong will need to work with the teacher or teaching assistant before the next lesson to make sure that they are ready for the next stage of the MNP! Journey.

SEND/Bsquared Children

All children should be involved in and participate in the MNP! Lessons. If we always put a ceiling on children's learning and give them completely differentiated work then we can't expect them to ever catch up or achieve their potential. The opportunity for children to communicate, listen to the reasoning of others and use the **Concrete, Pictorial, Abstract model (CPA)** can really benefit the lower attaining children.

Where children have severe learning needs, IEPs or are numerous school years behind their peers, they should still be included in the In Focus of the lesson, so that they can communicate with the other children and join in, but should then work on their individual Bsquared targets linked to the learning objective and lesson outcomes that the other children are covering. It will be up to the teacher's professional judgement to decide whether the MNP! Workbook is appropriate for these children or whether they should just work on their individual targets in their Maths journal.

Weekly Timetabling

For 2018-19, it is expected that each class have an **hour long MNP! Lesson five times a week**, this happens in both the core and wider curriculum weeks. Each class should also have a **daily Fluent in Five session** before the start of their MNP! lesson. This Fluent in Five lesson enables pupils to practise key arithmetic methods and develop their mathematical fluency for mental and daily arithmetic.



Fluent In Five Lessons

Every day, there will be a short session **before the start of MNP!** dedicated to mathematical fluency, mental and arithmetic methods. **These sessions are vital** in order to ensure that our pupils are practising their mathematical fluency and are confident using written arithmetic methods ahead of the end of KS1 and KS2 assessments.

In each Fluent In Five session, pupils are given between three and six questions (depending on their year group) to **answer within five minutes**. Next to the question, there will be a symbol to indicate to the children whether they should answer the question mentally or using a written method (**see Appendix 4**). The children should complete their Fluent In Five work in the back of their maths journals, putting the date, week number and lesson number at the top and underlining using a ruler. The children then put each question number in their books and answer the questions within five minutes.

After 5 minutes the answers can be displayed on the screen and the pupils can either peer or self-assess. Teacher and TA would quickly scan the room to see if any pupils have really struggled and need support or a follow-up intervention. **It is expected that every Friday, teachers collect in the score of the children's Fluent In Five session from that day.**

Before the start of a Fluent In Five session, **teachers model the methods that will be used during that week on an anchor chart so that pupils can refer back to this for support**. Some teachers may prefer to do this after the first Fluent In Five session of the week, so that they have the chance to see what the pupils can do before the methods are modelled. The Fluent In Five programme will indicate what calculations, methods and questions will be covered that week in the "This week in a nutshell" slide (**see Appendix 5**).

Before the first week of Fluent In Five, teachers will give the children the Autumn 1 Arithmetic Test for their year group as a pre-assessment. The children will then have four weeks of daily Fluent In Five sessions and then complete the same Autumn 1 Arithmetic Test to see how much progress has been made. Their assessment scores on the Arithmetic Tests will be recorded and sent to Mr Sharpe. This process will then start again with the next Arithmetic Test.

After completing the arithmetic test and marking it, there is an assessment tool at the bottom of each test where children can shade in the question numbers that they got correct. The teacher can then quickly look over the class's self-assessments to see which type of arithmetic questions the children still need work on, these could be modelled and added to an anchor chart.

Displays

Washing lines and anchor charts are the means by which children can access support for Maths rather than a fixed display. Teachers are expected to use Anchor charts to show and model the methods used during MNP! lessons so that pupils can refer back to them when stuck. Anchor charts should also be used for modelling methods as part of Fluent In Five. When a MNP! Chapter is completed; the teacher will take photos of the anchor chart and turn it into a laminated-style book, before creating a new anchor chart for the next chapter. More details can be found in our 'Classroom Environment and Display Expectations' document.



Times Table Rockstars

As a school, we subscribe to the website TT Rockstars as we are well aware of the importance of the key times table facts in mathematics, particularly as children progress through KS2. We also want to prepare our Year 3s for the new Times Table test that they will undertake when they are in Year 4, as well as make sure that our Year 4s are confident and regularly practising their times tables in preparation for their test.

All children at school have a TT Rockstars login so that they can access the website/app at home and work on their times table knowledge. All teachers also have a login to the website so that they can promote the use of TT Rockstars, set specific times tables for the children to work on and perhaps even compete with the children in their class!

As part of our school's home learning, every Friday all of the children in KS2 are sent home a TT Rockstars challenge sheet relating to a times table that their class are working on. The sheet has 60 different multiplication and/or division questions to complete in 3 minutes.



Appendix 1 - Glossary of Terms in the order they appear above

Maths No Problem! (MNP!)

Maths — No Problem! is a comprehensive series that adopts a spiral design with carefully built-up mathematical concepts and processes adapted from the maths mastery approaches used in Singapore. The Concrete-Pictorial-Abstract (C-P-A) approach forms an integral part of the learning process through the materials developed for this series.

Maths — No Problem! incorporates the use of concrete aids and manipulatives, problem-solving and group work.

Singapore has become a “laboratory of maths teaching” by incorporating established international research into a highly effective teaching approach. With its emphasis on teaching pupils to solve problems, Singapore Maths teaching is the envy of the world.

Singapore developed a new way of teaching maths following their poor performance in international league tables in the early 1980's. The Singapore Ministry of Education decided to take the best practice research findings from the West and applied them to the classroom with transformational results.

Based on recommendations from notable experts such as Jerome Bruner, Richard Skemp, Jean Piaget, Lev Vygotsky, and Zoltan Deines, Singapore maths is an amalgamation of global ideas delivered as a highly-effective programme of teaching methods and resources.

The effectiveness of this approach is demonstrated by Singapore's position at the top of the international benchmarks such as TIMSS and PIRLS and explains why their programme is now used in over 40 countries including the United Kingdom and the United States.

Since 2007 Maths – No Problem! has helped hundreds of schools and parents teach the world-class methods from Singapore and we can use our expertise to help your school too. The Maths — No Problem! Primary Series was assessed by the DfE's expert panel, which judged that it alone met the core criteria for a high-quality textbook to support teaching for mastery.

STEM Sentences

STEM sentences follow the pattern:

I say, you say, you say, you say, we all say.

This technique enables the teacher to provide a STEM sentence for children to communicate their ideas with mathematical precision and clarity. These sentence structures often express key conceptual ideas or generalities and provide a framework to embed conceptual knowledge and build understanding. For example:

If the rectangle is the whole, the shaded part is one third of the whole.

Having modelled the sentence, the teacher then asks individual children to repeat this, before asking the whole class to chorus chant the sentence. This provides children with a valuable sentence for talking about fractions.

Repeated use helps to embed key conceptual knowledge.

Another example is where children fill in the missing parts of a sentence; varying the parts but keeping the same STEM sentence, for example:

There are 12 stars. $\frac{1}{2}$ of the stars is equal to 6 stars.



In the above example, the underlined part of the sentence would change but the rest would remain the same – thus being the STEM sentence.

Manipulatives

Manipulatives are physical objects that are used as teaching tools to engage students in the hands-on learning of mathematics. They are designed so that a learner can perceive a mathematical concept through manipulation. They can be used in all areas of maths from number and operations, algebra, geometry to measurement. They are vital in the Concrete, Pictorial, Abstract (CPA) Model, particularly in the Concrete stage.

MNP! HUB

The Maths — No Problem! Teacher Hub is a series of online tools that aid teachers to plan and deliver effective mathematics lessons. The Hub is where you will find the Teacher Guides for those using the Maths — No Problem! series in their classroom. Academy video training courses can also be found in the Teacher Hub. They are for any teacher looking to improve their subject and pedagogical knowledge.

MNP! Textbooks

The MNP! Textbooks help provide teachers with the outline of their maths lessons and suggest what should be done at each stage of the lesson: In Focus, Let's Learn, Guided Practice, Independent Practice. There are also suggestions for other areas such as Activity Time, Mind Workout, Maths Journal and Self Check. The Textbook provides an overview of each Chapter and explains the thinking behind how each lesson is built on the other.

MNP! Workbooks

The MNP! Workbooks are used by the children in the Independent Practice stage of the lesson. The work inside the MNP! workbook is the same for all of the children in the classroom and is not differentiated. Differentiation comes through carefully planned and considered teacher questioning, as well as the children's work in their maths journals. The MNP! workbook is used as an assessment tool to check how well the children have understood the lesson objective and whether they have achieved the intended lesson outcome. Children may not complete all of the questions for each lesson but they must all complete the required questions, as chosen by the teacher, for the purpose of the lesson. The differences in children's attainment and understanding can be seen through how many of the questions they complete.

For further evidence of children's understanding, attainment and their deeper thinking and learning, teachers will set the work challenges, questions and next steps in their Maths Journals.

Maths Journals

The work inside the Maths Journal shows how well the children have understood the lesson objective and how deep their understanding goes. Each of the children's Maths Journals are personal to them and show their mathematical thinking, understanding, reasoning and methods. The Maths Journal is a place for children to explain and prove how they have completed the lesson objective or a question posed by their teacher. It is expected that teachers complete one deep mark for every child per week. Deep Marking should challenge the children's understanding of the non-negotiable goal and/or lesson objective. Teachers should set the



children a reasoning style action or next step in order to move their understanding forward.

More information about Maths Journals and Journaling can be found in the Journaling section.

Concrete, Pictorial, Abstract Model

Concrete, pictorial, abstract (CPA) is a highly effective approach to teaching that develops a deep and sustainable understanding of maths in pupils. Often referred to as the concrete, representational, abstract framework, CPA was developed by American psychologist Jerome Bruner. It is an essential technique within the Singapore method of teaching maths for mastery. Children (and adults!) can find maths difficult because it is abstract. The CPA approach builds on children's existing knowledge by introducing abstract concepts in a concrete and tangible way. It involves moving from concrete materials, to pictorial representations, to abstract symbols and problems. The CPA framework is so established in Singapore maths teaching that the Ministry of Education will not approve any teaching materials that do not use the approach.

Concrete is the "doing" stage. During this stage, students use concrete objects to model problems. Unlike traditional maths teaching methods where teachers demonstrate how to solve a problem, the CPA approach brings concepts to life by allowing children to experience and handle physical (concrete) objects. With the CPA framework, every abstract concept is first introduced using physical, interactive concrete materials.

Pictorial is the "seeing" stage. Here, visual representations of concrete objects are used to model problems. This stage encourages children to make a mental connection between the physical object they just handled and the abstract pictures, diagrams or models that represent the objects from the problem.

Abstract is the "symbolic" stage, where children use abstract symbols to model problems. Students will not progress to this stage until they have demonstrated that they have a solid understanding of the concrete and pictorial stages of the problem. The abstract stage involves the teacher introducing abstract concepts (for example, mathematical symbols). Children are introduced to the concept at a symbolic level, using only numbers, notation, and mathematical symbols (for example, +, -, x, /) to indicate addition, multiplication or division.

Anchor Charts

To support the children to independently apply their learning, an anchor chart would be displayed on the washing line.

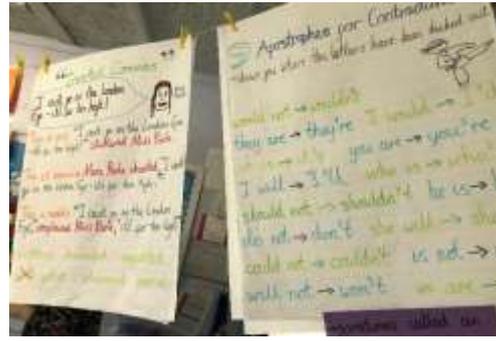
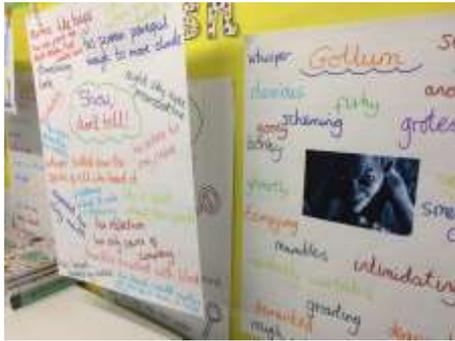
These anchor charts should show: In Focus, Methods used and modelled and Journaling.

Working together with their class, a teacher would create an anchor chart for the In Focus task, after the children have had a chance to explore it in groups.

During the Let's Learn stage, the teacher would model and demonstrate the methods that the children will be using that lesson. This should then be put up on the anchor chart so that the children can refer back to it if needed.



For the Journaling anchor chart, the teacher may show an example of what the Journaling looks like or they might do one together with the help of the children and by magpying their ideas.



Fluent In Five

Fluent in Five provides a daily set of arithmetic practice, designed to help children develop and maintain fluency in both written and mental calculations. The structure of Fluent in Five is also designed to help children distinguish between written and mental calculations.

Regular practice of mental and written arithmetic skills is important in order to keep calculation skills fresh. This is especially important given MNP! structures the curriculum with longer blocks spent on each topic area, but without each topic area being revisited.

Due to the significant time pressures of the KS2 arithmetic tests; some children are not able to complete the full test in the 30 minutes given.

This is often because children are attempting questions which have been designed to be answered mentally using an informal or formal written method, which takes up valuable time. This may be because children are not confident with mental approaches to calculations, or that they are simply 'tricked' by the appearance of a gridded working area after each question. Fluent in Five has been designed to provide this regular practice and help children distinguish between when to use a written method and when a mental method would be more efficient. In turn, this should develop their ability to complete all the questions in an arithmetic test in the time given.



Appendix 2 – Yearly Planning Grids

Year Group 1

Autumn

Mon 10 th Sept	Mon 17 th Sept	Mon 24 th Sept	Mon 1 st Oct	Mon 8 th Oct	Mon 15 th Oct	Mon 22 nd Oct	Mon 5 th Nov	Mon 12 th Nov	Mon 19 th Nov	Mon 26 th Nov	Mon 3 rd Dec	Mon 10 th Dec	Mon 17 th Dec
					Open Morning		Discos D'wall	Anti-Bullying				Xmas Plays	Xmas Panto
T4W Fiction – Tale of Fear			T4W Non-Fiction – Info Texts			T4W Poetry			T4W Fiction – Journey Tale			T4W Poetry	
SR/GR - Predicting		SR/GR - Inferring		SR/GR - Connect		SR/GR - Summary			SR/GR - Question		SR/GR - Evaluating		Assess
Phonics	Phonics	Phonics	Phonics	Phonics	Phonics	Phonics	Phonics	Phonics	Phonics	Phonics	Phonics	Phonics	Assess
MNPI Chap 1 – Number to 10			MNPI C2 Num Bond		MNPI Chap 3 – Addition within 10		MNPI Chap 4 – Subtraction within 10		MNPI C5 Positions		MNPI Chap 6 – Numbers to 20		Assess
Topic – At the Doctors						Topic – At the Railway							

Spring

Mon 7 th Jan	Mon 14 th Jan	Mon 21 st Jan	Mon 28 th Jan	Mon 4 th Feb	Mon 11 th Feb	Mon 25 th Feb	Mon 4 th Mar	Mon 11 th Mar	Mon 18 th Mar	Mon 25 th Mar
				Internet Safety Wk	Valentine Day		Pancake Day		Open Morning	Mothers Day
T4W Non-Fiction – Recount			T4W Fiction – Rags to Riches			T4W Non-Fiction – Instructions			T4W Poetry	
SR/GR - Predicting		SR/GR - Inferring		SR/GR - Connect		SR/GR - Summary		SR/GR - Question		Assess
Phonics	Phonics	Phonics	Phonics	Phonics	Phonics	Phonics	Phonics	Phonics	Phonics	Assess
MNPI Chap 7 – Add & Sub within 20			MNPI Chap 8 – Shapes & Patterns		MNPI C9 – Length	MNPI Chap 10 – Numbers to 40		MNPI Chap 11 – Add & Sub Word Problems		Assess
Topic – SRE		Topic – With Picasso			Topic – In the Countryside					

Summer

Mon 15 th Apr	Mon 22 nd Apr	Mon 4 th May	Mon 13 th May	Mon 20 th May	Mon 3 rd Jun	Mon 10 th Jun	Mon 17 th Jun	Mon 24 th Jun	Mon 1 st Jul	Mon 8 th Jul	Mon 15 th Jul	Mon 22 nd Jul	
Good Friday	St George Day	Ramadan	GL Test Week		Ela	Father's Day	Open Morning						
T4W Fiction – Wishing Tale			T4W Non-Fiction			Persuade		T4W Fiction – Meeting Tale		T4W Non-Fiction – Explain			Assess
Assess		SR/GR - Predicting		SR/GR - Inferring		SR/GR - Connect		SR/GR - Summary		SR/GR - Question		SR/GR - Evaluating	
Phonics	Phonics	Phonics	Phonics	Phonics	Phonics	Phonics	Phonics	Phonics	Phonics	Phonics	Phonics	Assess	
MNPI Chap 12 Multiplication		MNPI C13 Division	MNPI C14 Fractions	MNPI Chap 15 – Numbers to 100		MNPI Chap 16 – Time		MNPI C17 Money	MNPI C18 Capacity	MNPI C19 Mass	MNPI Chap 20 – Space	MNPI Review & Revisit	Assess
Topic – Drugs		Topic – At the Desert			At the Desert		Topic – At the Garage						

Year Group 2

Autumn

Mon 10 th Sept	Mon 17 th Sept	Mon 24 th Sept	Mon 1 st Oct	Mon 8 th Oct	Mon 15 th Oct	Mon 22 nd Oct	Mon 5 th Nov	Mon 12 th Nov	Mon 19 th Nov	Mon 26 th Nov	Mon 3 rd Dec	Mon 10 th Dec	Mon 17 th Dec
						Open Morning	Discos D'wall	Anti-Bullying				Xmas Plays	Xmas Panto
T4W Fiction – Character Flaw			T4W Non-Fiction – Recount			T4W Poetry			T4W Fiction – Warning Tale			T4W Poetry	
SR/GR - Predicting		SR/GR - Inferring		SR/GR - Connect		SR/GR - Summary			SR/GR - Question		SR/GR - Evaluating		Assess
Phonics	Phonics	Phonics	Phonics	Phonics	Phonics	Phonics	Phonics	Phonics	Phonics	Phonics	Phonics	Phonics	Assess
MNPI Chap 1 – Numbers to 100			MNPI Chap 2 – Addition & Subtraction			MNPI C2		MNPI Chap 3 – Multiplication of 2, 5 and 10			MNPI Chap 4 – Division of 2, 5 and 10		Assess
Topic – In the Capital						Topic – At the Zoo							

Spring

Mon 7 th Jan	Mon 14 th Jan	Mon 21 st Jan	Mon 28 th Jan	Mon 4 th Feb	Mon 11 th Feb	Mon 25 th Feb	Mon 4 th Mar	Mon 11 th Mar	Mon 18 th Mar	Mon 25 th Mar
				Internet Safety Wk	Valentine Day		Pancake Day		Open Morning	Mothers Day
T4W Non-Fiction – Information			T4W Fiction – Losing Tale			T4W Non-Fiction – Discussion			T4W Poetry	
SR/GR - Predicting		SR/GR - Inferring		SR/GR - Connect		SR/GR - Summary		SR/GR - Question		Assess
Spelling	Spelling	Spelling	Spelling	Spelling	Spelling	Spelling	Spelling	Spelling	Spelling	Assess
MNPI Chap 5 – Length			MNPI Chap 6 – Mass		MNPI C7 Temp	MNPI Chap 8 – Picture Graphs		MNPI C9 Word Probs	MNPI Chap 10 – Money	
Topic – SRE		Topic – With Van Gogh			Topic – Down the Mine					

Summer

Mon 15 th Apr	Mon 22 nd Apr	Mon 6 th May	Mon 13 th May	Mon 20 th May	Mon 3 rd Jun	Mon 10 th Jun	Mon 17 th Jun	Mon 24 th Jun	Mon 1 st Jul	Mon 8 th Jul	Mon 15 th Jul	Mon 22 nd Jul	
Good Friday	St George Day	SATS Ramadan	SATS	SATS	Ela	Father's Day	Open Morning						
T4W Fiction – Finding Tale			T4W Non-Fiction			Persuade		T4W Fiction – Monster Tale		T4W Non-Fiction – Instruction			Assess
Assess		SR/GR - Predicting		SR/GR - Inferring		SR/GR - Connect		SR/GR - Summary		SR/GR - Question		SR/GR - Evaluating	
Spelling	Spelling	Spelling	Spelling	Spelling	Spelling	Spelling	Spelling	Spelling	Spelling	Spelling	Spelling	Assess	
MNPI C10 Money		MNPI Chap 11 – 2D Shapes		MNPI C12 3D Shapes	MNPI C12		MNPI Chap 13 – Fractions			MNPI Chap 14 – Time		MNPI C15 Volume	
Topic – Drugs		Topic – On a Plane			On a Plane		Topic – At the Allotment						



Year Group 3

Autumn

Mon 10 th Sept	Mon 17 th Sept	Mon 24 th Sept	Mon 1 st Oct	Mon 8 th Oct	Mon 15 th Oct	Mon 22 nd Oct	Mon 5 th Nov	Mon 12 th Nov	Mon 19 th Nov	Mon 26 th Nov	Mon 3 rd Dec	Mon 10 th Dec	Mon 17 th Dec
					Open Morning	Harvest Festivals	Discos Dwell	Anti-Bullying					Xmas Party
T4W Fiction – Rags to Riches			T4W Non-Fiction – Instructions				T4W Poetry – Haiku		T4W Fiction – Monster Tale			T4W Poetry	
SR/GR - Predicting			SR/GR - Inferring				SR/GR – Summary		SR/GR – Question			SR/GR - Evaluating	
Spelling			Spelling				Spelling		Spelling			Spelling	
MNPI Chap 1 – Numbers to 1000			MNPI Chap 2 – Addition & Subtraction				MNPI Chap 2 – Add & Subt		MNPI Chap 3 – Multiplication & Division			MNPI Ch4 Mult & Div	
Topic – At the Pyramids						Topic – Inside the Human Body							

Spring

Mon 7 th Jan	Mon 14 th Jan	Mon 21 st Jan	Mon 28 th Jan	Mon 4 th Feb	Mon 11 th Feb	Mon 25 th Feb	Mon 4 th Mar	Mon 11 th Mar	Mon 18 th Mar	Mon 25 th Mar
				Internet Safety Wk	Valentine Day		Pancake Day		Open Morning	Mother's Day
T4W Non-Fiction – Recount			T4W Fiction – Meefing Tale			T4W Non-Fiction – Information			T4W Poetry	
SR/GR - Predicting			SR/GR - Inferring			SR/GR - Connect			SR/GR – Question	
Spelling			Spelling			Spelling			Spelling	
MNPI Chap 4 – Further Mult & Div			MNPI Chap 5 – Length			MNPI Chap 6 – Mass			MNPI Chap 7 – Volume	
Topic - SRE			Topic – With Andy Warhol			Topic – In Yorkshire				

Summer

Mon 15 th Apr	Mon 22 nd Apr	Mon 6 th May	Mon 13 th May	Mon 20 th May	Mon 3 rd Jun	Mon 10 th Jun	Mon 17 th Jun	Mon 24 th Jun	Mon 1 st Jul	Mon 8 th Jul	Mon 15 th Jul	Mon 22 nd Jul
Good Friday	St George Day	Ramadan	GL Test Week		ER	Father's Day	Open Morning					
T4W Fiction – Journey Tale			T4W Non-Fiction			Explain		T4W Fiction – Finding Tale		T4W Non-Fiction – Discussion		
Assess			SR/GR - Predicting			SR/GR - Inferring			SR/GR – Question		SR/GR - Evaluating	
Spelling			Spelling			Spelling			Spelling		Spelling	
MNPI Chap 9 – Time			MNPI Chap 10 – Picture & Bar Graphs			MNPI Chapter 11 – Fractions			MNPI C12 Angles		MNPI C13 Shapes	
Topic - Drugs			Topic – At the Seaside			At the Seaside		Topic – On the Farm				

Year Group 4

Autumn

Mon 10 th Sept	Mon 17 th Sept	Mon 24 th Sept	Mon 1 st Oct	Mon 8 th Oct	Mon 15 th Oct	Mon 22 nd Oct	Mon 5 th Nov	Mon 12 th Nov	Mon 19 th Nov	Mon 26 th Nov	Mon 3 rd Dec	Mon 10 th Dec	Mon 17 th Dec
					Open Morning	Harvest Festivals	Discos Dwell	Anti-Bullying					Xmas Party
T4W Fiction – Warning Tale			T4W Non-Fiction – Explain				T4W Poetry		T4W Fiction – Character Flaw			T4W Poetry	
SR/GR - Predicting			SR/GR - Inferring				SR/GR – Summary		SR/GR – Question			SR/GR - Evaluating	
Spelling			Spelling				Spelling		Spelling			Spelling	
MNPI Chap 1 – Numbers to 10 000			MNPI Chap 2 – Add & Subtract within 10 000				MNPI Chap 2 – Add & Subtract within 10 000		MNPI Chap 3 – Multiplication & Division				
Topic – In Mexico						Topic – At the Aurora							

Spring

Mon 7 th Jan	Mon 14 th Jan	Mon 21 st Jan	Mon 28 th Jan	Mon 4 th Feb	Mon 11 th Feb	Mon 25 th Feb	Mon 4 th Mar	Mon 11 th Mar	Mon 18 th Mar	Mon 25 th Mar
				Internet Safety Wk	Valentine Day		Pancake Day		Open Morning	Mother's Day
T4W Non-Fiction – Discussion			T4W Fiction – Losing Tale			T4W Non-Fiction – Recount			T4W Poetry – Haiku	
SR/GR - Predicting			SR/GR - Inferring			SR/GR - Connect			SR/GR – Question	
Spelling			Spelling			Spelling			Spelling	
MNPI Chap 4 – Further Mult & Division			MNPI Chap 5 – Graphs			MNPI Chap 6 – Fractions				
Topic - SRE			Topic – On the Savannah			Topic – With Barbara Hepworth				

Summer

Mon 15 th Apr	Mon 22 nd Apr	Mon 6 th May	Mon 13 th May	Mon 20 th May	Mon 3 rd Jun	Mon 10 th Jun	Mon 17 th Jun	Mon 24 th Jun	Mon 1 st Jul	Mon 8 th Jul	Mon 15 th Jul	Mon 22 nd Jul
Good Friday	St George Day	Ramadan	GL Test Week		ER	Father's Day	Open Morning					
T4W Fiction – Fear Tale			T4W Non-Fiction			Info		T4W Fiction – Wishing Tale		T4W Non-Fiction – Persuasive		
Assess			SR/GR - Predicting			SR/GR - Inferring			SR/GR – Question		SR/GR - Evaluating	
Spelling			Spelling			Spelling			Spelling		Spelling	
MNPI Chap 8 – Decimals			MNPI Ch9 Money			MNPI Ch9 Money			MNPI Chap 10 – Mass, Volume and Length		MNPI C11 Area	
Topic - Drugs			Topic – On the River			On the River		Topic – At the Toy Shop				



Year Group 5

Autumn

Mon 10 th Sept	Mon 17 th Sept	Mon 24 th Sept	Mon 1 st Oct	Mon 8 th Oct	Mon 15 th Oct	Mon 22 nd Oct	Mon 5 th Nov	Mon 12 th Nov	Mon 19 th Nov	Mon 26 th Nov	Mon 3 rd Dec	Mon 10 th Dec	Mon 17 th Dec
					Open Morning	Harvest Festival	Discos Dwell	Anti-Bullying					Xmas Party
T4W Fiction – Finding Tale			T4W Non-Fiction – Information				T4W Poetry		T4W Fiction – Monster Tale			T4W Poetry	
SR/GR - Predicting		SR/GR - Inferring		SR/GR - Connect		SR/GR - Summary		SR/GR - Question		SR/GR - Evaluating		Assess	
Spelling		Spelling		Spelling		Spelling		Spelling		Spelling		Assess	
MNPI Chap 1 – Numbers to 1 000 000				MNPI Chap 2 – addition & subtraction				MNPI Chap 2 –		MNPI Chap 3 – multiplication & division			
Topic – On the Space Shuttle							Topic – On a Longboat						

Spring

Mon 7 th Jan	Mon 14 th Jan	Mon 21 st Jan	Mon 28 th Jan	Mon 4 th Feb	Mon 11 th Feb	Mon 25 th Feb	Mon 4 th Mar	Mon 11 th Mar	Mon 18 th Mar	Mon 25 th Mar	
				Internet Safety Wk	Valentine Day		Pancake Day		Open Morning	Mother's Day	
T4W Non-Fiction – Persuasion			T4W Fiction – Rags to Riches			T4W Non-Fiction – Discussion			T4W Poetry – Haiku		
SR/GR - Predicting		SR/GR - Inferring		SR/GR - Connect		SR/GR - Summary		SR/GR - Question		Assess	
Spelling		Spelling		Spelling		Spelling		Spelling		Assess	
MNPI Chap 5 – Graphs			MNPI Chap 6 – Fractions			MNPI Ch6 Fractions		MNPI Chap 7 – Decimals			
Topic - SRE			Topic – With Frida Kahlo			Topic – On the Galapagos Islands					

Summer

Mon 15 th Apr	Mon 22 nd Apr	Mon 6 th May	Mon 13 th May	Mon 20 th May	Mon 3 rd Jun	Mon 10 th Jun	Mon 17 th Jun	Mon 24 th Jun	Mon 1 st Jul	Mon 8 th Jul	Mon 15 th Jul	Mon 22 nd Jul		
Good Friday	St George Day	Ramadan	GL Test Week		Eid	Father's Day	Open Morning							
T4W Fiction – Fear Tale			T4W Non-Fiction			Instruct T4W Fiction – Character Flaw		T4W Non-Fiction – Explain			Assess			
Assess		SR/GR - Predicting		SR/GR - Inferring		SR/GR - Connect		SR/GR - Summary		SR/GR - Question		SR/GR - Evaluating		
Spelling		Spelling		Spelling		Spelling		Spelling		Spelling		Assess		
MNPI Chap 8 – Percentage		MNPI Chap 9 – Geometry			MNPI C10 Position		MNPI Chap 11 – Measurements		MNPI Chap 12 – Area & Perimeter		MNPI Chap 13 – Volume		MNPI Ch 14 Roman Num	
Topic - Drugs			Topic – In the Rainforest			In the Rainforest		Topic – At a Fairground						

Year Group 6

Autumn

Mon 10 th Sept	Mon 17 th Sept	Mon 24 th Sept	Mon 1 st Oct	Mon 8 th Oct	Mon 15 th Oct	Mon 22 nd Oct	Mon 5 th Nov	Mon 12 th Nov	Mon 19 th Nov	Mon 26 th Nov	Mon 3 rd Dec	Mon 10 th Dec	Mon 17 th Dec	
					Open Morning	Harvest Festival	Discos Dwell	Anti-Bullying					Xmas Party	
T4W Fiction – Journey Tale			T4W Non-Fiction – Instructions				T4W Poetry		T4W Fiction – Meeting Tale			T4W Poetry		
SR/GR - Predicting		SR/GR - Inferring		SR/GR - Connect		SR/GR - Summary		SR/GR - Question		SR/GR - Evaluating		Assess		
Spelling		Spelling		Spelling		Spelling		Spelling		Spelling		Assess		
MNPI Chap 1 – Numbers to 10 000 000				MNPI Chap 2 – Four operations on Whole Numbers				MNPI Chap 2 –		MNPI Chap 3 – Fractions			MNPI Chap 4 – Decimals	
Topic – In the Himalayas							Topic – At the Abbey							

Spring

Mon 7 th Jan	Mon 14 th Jan	Mon 21 st Jan	Mon 28 th Jan	Mon 4 th Feb	Mon 11 th Feb	Mon 25 th Feb	Mon 4 th Mar	Mon 11 th Mar	Mon 18 th Mar	Mon 25 th Mar			
				Internet Safety Wk	Valentine Day		Pancake Day		Open Morning	Mother's Day			
T4W Non-Fiction – Recount			T4W Fiction – Wishing Tale			T4W Non-Fiction – Persuasion			T4W Poetry – Haiku				
SR/GR - Predicting		SR/GR - Inferring		SR/GR - Connect		SR/GR - Summary		SR/GR - Question		Assess			
Spelling		Spelling		Spelling		Spelling		Spelling		Assess			
MNPI Ch 4 Decimals		MNPI Chap 5 – Measurements		MNPI Chap 6 – Word Problems		MNPI Ch7 Percent		MNPI Chap 8 – Ratio		MNPI Chap 9 – Algebra		MNPI C10 Area	
Topic - SRE			Topic – With Claude Monet			Topic – In the Dragon's Den							

Summer

Mon 15 th Apr	Mon 22 nd Apr	Mon 6 th May	Mon 13 th May	Mon 20 th May	Mon 3 rd Jun	Mon 10 th Jun	Mon 17 th Jun	Mon 24 th Jun	Mon 1 st Jul	Mon 8 th Jul	Mon 15 th Jul	Mon 22 nd Jul	
Good Friday	St George Day	Ramadan	Y6 SAT Week		Eid	Father's Day	Open Morning						
T4W Fiction – Warning Tale			T4W Non-Fiction			Explain T4W Fiction – Losing Tale		T4W Non-Fiction – Discussion			Assess		
Assess		SR/GR - Predicting		SR/GR - Inferring		SR/GR - Connect		SR/GR - Summary		SR/GR - Question		SR/GR - Evaluating	
Spelling		Spelling		Spelling		Spelling		Spelling		Spelling		Assess	
MNPI C10 Area		MNPI C12 Geometry		MNPI C13 Position		MNPI Chap 14 – Graphs & Averages		MNPI Ch 15 –Y6 Num		MNPI C11 Volume		MNPI Chap 12 – Geometry	
Topic - Drugs			Topic – In the Lab			In the Lab		Topic – At the Theatre					



Appendix 3 – MNP! S Plan – Chapter Overview

Y4: Chapter 1: Numbers to 10 000 (Place Value).

L4 + 5: Using Place Value

L4 Expand/partition numbers to show place value.

L5 Recognise place value of each digit in 4 digit numbers. Place value counters, Base 10, place value chart, digit cards. L4 NNQn1. L5 NN Qn1 - do 2 ways.

L3: Counting in 1000s, 100s, 10s and 1s. Say number, write in numerals + words. NN Qn 1a+b. Place value counters.

L2: Counting in 1000s
Count \uparrow + \downarrow in 1000s. Base 10 + Place value counters. NN Qn 1.

10s in 100?
100s in 1000?

Lesson! Base 10 Place value counters. Counting in 100s and 25s. Link to 10s, 5s. Arrays, ten-frames. Non-Negotiable Qn 1.

L6 + 7: Comparing + Ordering Numbers
Say greater than, less/smaller than, equal to. Place 4-digit numbers in size order. Place value counters, Base 10, number lines. L6 NNQn 3. L7 NNQn 3.

L8 + 9: Making Number Patterns
Counting 1000, 100, 10, 1 more or less. Place value counters, digit cards, number lines. L8 NNQn 2. L9 NNQn 2.

L10: Counting in 6s, 7s + 9s. Count in 6s, 7s and 9s. Link to 2s, 3s and 5s. Numicon, 100 square, number line. NNQn1.

L11 + 12: Rounding Numbers
Round to nearest 10, 100 and 1000. Number lines. L11 NNQn 2. L12 NNQn 2. First line.

L13 + 14: Rounding Numbers to Estimate
L13 Round to nearest 10 to estimate. \approx Approximately equal to.
L14 Round to nearest 100 to estimate. Number lines. L13 NNQn 1. L14 NNQn 1.

L15: Chapter Consolidation
Understand how to compare using place value. Negative numbers.

RESOURCES:

- Base 10 Place value counters
- Number line
- Place value cards + chart
- 100 square
- Cuisenaire rods
- Numicon

KEY VOCABULARY:

1s, 10s, 100s, 1000s numerals, digits, compare, order, size, value, greater than, smaller than, less than, less, more, $<$ $>$ $=$ \approx , nearest, round, estimate, approximate, negative, positive.



Appendix 4 – Fluent In Five Questions and Symbols



Year 4
Week 1 - Day 1

KEY	
	Try mentally first
	Try a written method

 A. $186 + 7 =$	 B. $467 + 334 =$
 C. $3 \times 7 =$	 D. $14 \times 3 =$

Appendix 5 – Fluent In Five “This week in a nutshell” weekly overview



Year 4 - Week 1
This week in a nutshell:

This is the first week children will be exposed to Fluent in Five. They may therefore find it more challenging and we recommend you introduce them to the questions with symbols first. This will show them whether to use mental or written methods for the calculation.

Mental methods this week focus on those which should be secure for Year 3, including:

- The three times tables
- Adding a three digit number and ones
- Finding unit fractions of number

Multiplication and division questions which may need to be supported with an informal written method or jottings are included, with the 3 times table as their base.

This week written addition questions include exchanging in one column only. For this week only, all questions are presented in the 'traditional' format of 'question = answer space'.



Appendix a)

