Maths Policy

Version	Document Title	Status	Author	Approved by	Date	Review Date
0.1	Maths Policy (Primary)	Final	Maths Lead	Principal/Vice Principal	Sep 2022	August 2024
Regional Director		Principal		Vice Principal		
Head of Foundation Stage		Head of Primary		Head of Secondary		

At Newlands, our mathematics curriculum follows the programme of Study and Aims of the National Curriculum.

Mathematics is a creative and highly inter-connected discipline that has been developed over centuries, providing the solution to some of history's most intriguing problems. It is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. A high-quality mathematics education therefore provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject.

Aims

The National Curriculum for mathematics aims to ensure that all pupils:

- become **fluent** in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- **reason mathematically** by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
- can **solve problems** by applying their mathematics to a variety of routine and non- routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.

Our vision for Mathematics

- To promote a positive attitude towards mathematics in all pupils
- To ensure all pupils are engaged in and are enjoying exploring Mathematics
- To enable all pupils to find links between mathematics and other areas of the curriculum, including Science
- To ensure all pupils progress in mathematics and are challenged appropriately through an in-depth understanding
- To use a wide range of concrete, pictorial and abstract representations to develop all pupils' relational understanding of mathematics
- To ensure all pupils are confident using mathematical vocabulary when reasoning about mathematics
- To promote a growth mindset in all pupils, particularly when Problem Solving

Teaching and Learning - A 'Mastery' Approach

The teaching and learning of mathematics at Newlands school should include aspects of the following Mastery approach strategies in every lesson and/or over a series of lessons:

'Concrete, pictorial, abstract (CPA) is a highly effective approach to teaching that develops a deep and sustainable understanding of maths.' (Maths - no problem!)

Concrete

Concrete is the "doing" stage, using concrete objects to model problems. Instead of the traditional method of mathematics teaching, where a teacher demonstrates how to solve a problem, the CPA approach brings concepts to life by allowing pupils to experience and handle physical objects themselves. Every new abstract concept is learned first with a "concrete" or physical experience.

For example, if a problem is about adding up four baskets of fruit, the pupils might first handle actual fruit before progressing to handling counters or cubes which are used to represent the fruit.

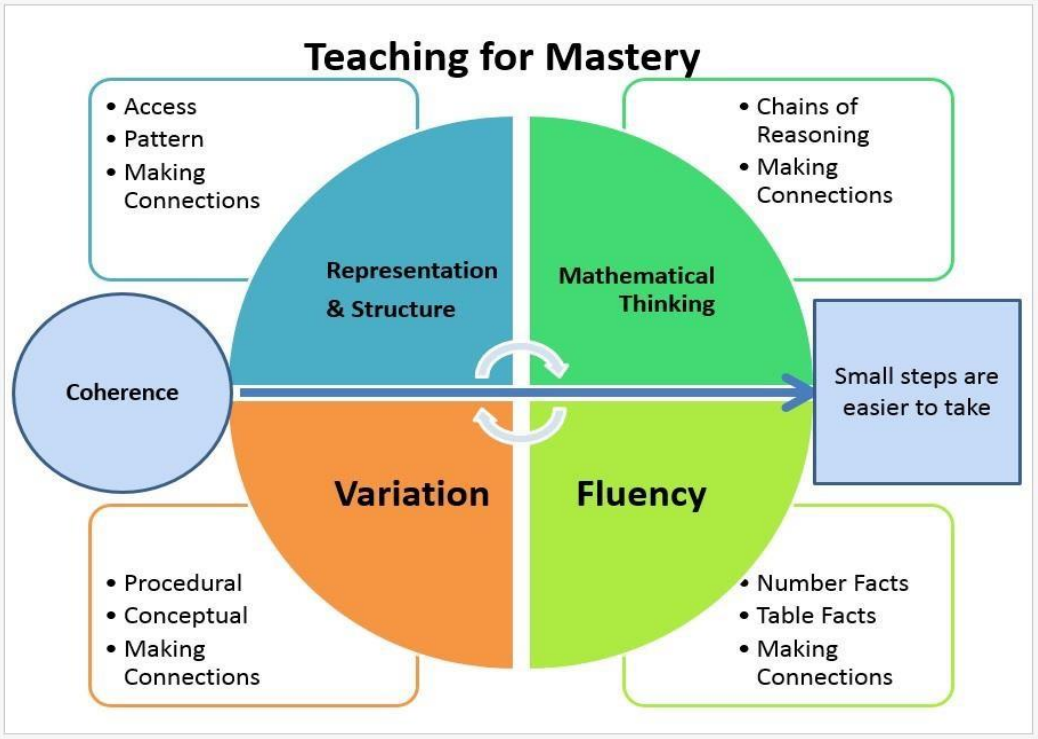
Pictorial

Pictorial is the "seeing" stage, using representations of the objects to model problems.
This stage encourages pupils to make a mental connection between the physical object and abstract levels of understanding by drawing or looking at pictures, circles, diagrams or models which represent the objects in the problem.

Building or drawing a model makes it easier for pupils to grasp concepts they traditionally find more difficult, such as fractions, as it helps them visualise the problem and make it more accessible.

Abstract

Abstract is the "symbolic" stage, where pupils are able to use abstract symbols to model problems (Hauser).
Only once a child has demonstrated that they have a solid understanding of the "concrete" and "pictorial" representations of the problem, can the teacher introduce the more
"abstract" concept, such as mathematical symbols. Pupils are introduced to the concept at a symbolic level, using only numbers, notation, and mathematical symbols, for example +, –, x, / to indicate addition, subtraction, multiplication, or division.



What is Fluency?

Fluency comes from deep knowledge and practice. This is the first stage of pupils's understanding.
Fluency includes: conceptual understanding, accuracy, rapid recall, retention and practice Accuracy – Pupils carefully completing calculations with no or few careless errors.

Pace – Pupils are able to quickly recall the appropriate strategy to solve the calculation and progress through a number of questions at an age-appropriate pace.

Retention – Pupils will be able to retain their knowledge and understanding on a separate occasion to when the concept was first introduced.

The key to fluency is deep knowledge and practice and making connections at the right time for a child.

What is Reasoning?

Verbal reasoning demonstrates that pupils understand the mathematics. Talk is an integral part of mastery as it encourages students to reason, justify and explain their thinking. This is tricky for many teachers who are not used to focusing on verbal reasoning in their mathematics lessons. You might, for example, get young learners to voice their thought processes. Older students could take part in class debates, giving them the space to challenge their peers using logical reasoning.

Mathematical Talk

A mastery classroom should never be a quiet classroom. The way pupils speak and write about mathematics transforms their learning. Mastery approaches use a carefully sequenced, structured approach to introduce and reinforce mathematical vocabulary.

To encourage talk in mathematics, teachers may introduce concepts by including sentence structures (stem sentences). Pupils should be able to say not just what the answer is, but how they know it's right. This is key to building mathematical language and reasoning skills. This gives pupils the confidence to communicate their ideas clearly, before writing them down.

Example Stem Sentences:
The denominator is 5 because the whole has been divided into 5 equal parts. The numerator is 3 because 3 equal parts have been shaded/circled.

Teachers then maintain a high expectation upon pupils to repeat and use the correct mathematical vocabulary to explain their understanding verbally and in their reflection comments. By also displaying the vocabulary during the lesson, pupils will be able to use this independently.

When questioning and encouraging mathematical talk, teachers should provide regular, purposeful opportunities. For example:

- Show me how to complete the calculation
- Teach your friend how to complete the calculation
- How do you know which operation to use?
- Why have you chosen this method?
- How else can you represent this number?
- What have you learnt today?
- True or False
- Odd one out
- Sometimes, always, Never

What is Problem Solving?

Mathematical problem solving is at the heart of the Mastery Approach. Pupils are encouraged to identify, understand and apply relevant mathematical principles and make connections between different ideas. This builds the skills needed to tackle new problems, rather than simply repeating routines without a secure understanding.

Mathematical concepts are explored in a **variety** of representations and problem-solving contexts to give pupils a richer and deeper learning experience. Pupils combine different concepts to solve complex problems, and apply knowledge to real-life situations. Through problem solving, pupils are required to select their mathematical knowledge and apply this to a new concept.

Problem solving is more than just word problems but the RUCSAC approach can be applied to this style of question:

1. Read / look at the problem
2. Understand the problem by underlining or discussing: What is the problem about?
3. Choose – Choose the operation required, the number facts or the approach.
4. Solve – Solve the problem by completing jottings on the page
5. Answer – complete the answer to the problem
6. Check – have I correctly answered the given problem or is there another step?

Teaching and Learning – Lesson Structure

In Years 1 to 6, pupils will be taught in mixed ability groups as a transition strategy within the classrooms. Mathematics is taught for at least one hour per day (or five hours per week). However, when required, teachers may choose to include additional mathematics lessons in their weekly timetable.

'The expectation is that the majority of pupils will move through the programmes of study at broadly the same pace. However, decisions about when to progress should always be based on the security of pupils' understanding and their readiness to progress to the next stage.
Pupils who grasp concepts rapidly should be challenged through being offered rich and sophisticated problems before any acceleration through new content. Those who are not sufficiently fluent with earlier material should consolidate their understanding, including through additional practice, before moving on.' (National Curriculum)

Lesson Structure

All mathematics lessons at Knowle follow the following structure:

- Starter Activity – to promote fluency of arithmetic and the Non-negotiable concepts
- Introduce New Learning using the Mastery Approach – See 'Planning'
- Reflective Plenary- End of unit (Purple Pen – KS2 or a Pictorial reflection e.g. drawings of a problem– KS1)

Starter Activity – to promote fluency of arithmetic

The purpose of this activity is to promote fluency of arithmetic and enable pupils to recap on the 'Non-Negotiable' aspects of mathematics.

The starter activity should be up to 3 minutes and could include:

- TT Rockstar Paper based 3-minute practice
- My MiniMaths questions by LBQ
- Verbal Mental Maths games/competitions
- Quick Fire questions on mini whiteboards
- Times Table chanting

*The paper-based TT Rockstars to be completed for at least three of the starter activities each week.

Reflective Plenary

At the end of each unit, all pupils should have made progress by learning a new technique, gaining an improved understanding of a concept or being able to complete a new activity.

This new learning/progress should be evidenced by writing a purple pen comment (KS2 and Year 2) or by drawing a self-assessment image (Year 1).

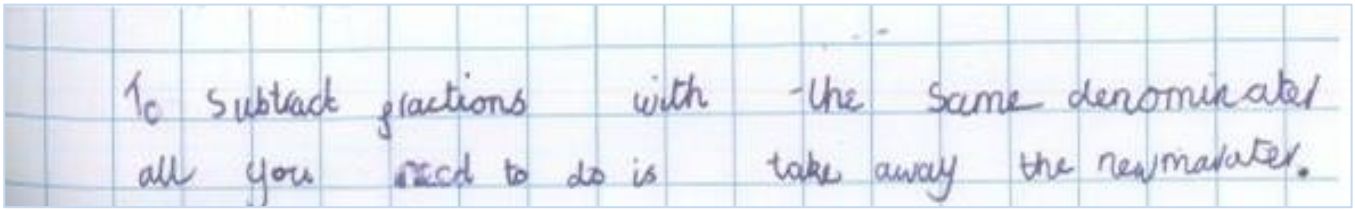
NB: It is important, particularly at the start of the year, to model writing a Purple Pen comment to ensure a consistent, detailed response which includes mathematical vocabulary.

Examples:

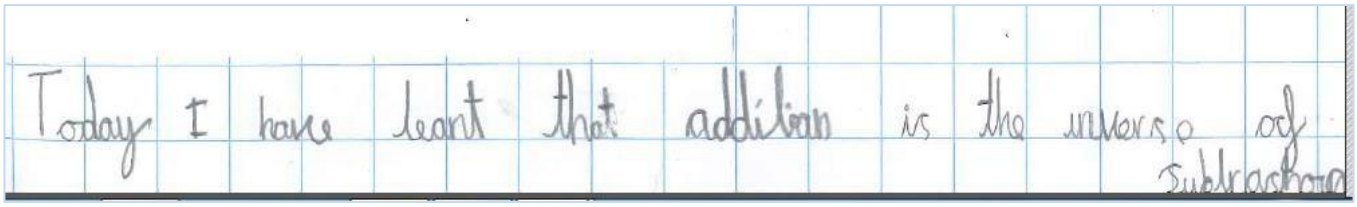
Today I have learned that percentages are always out of 100 and so I can create an equivalent fraction with 100 as the denominator.

I now know that when I multiply by 10 all of the digits move up one place value column and when multiplying a whole number, I need to introduce a place holder.

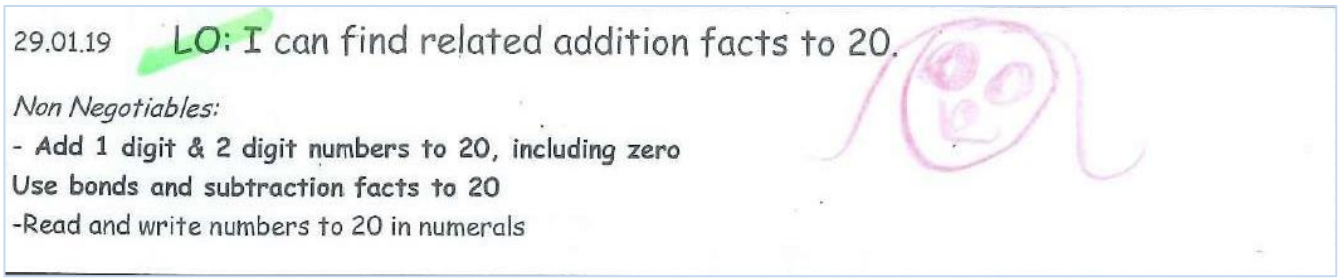
KS2



Year 2



Year 1



Planning

At Newlands, Teachers in Years 1 – 6 follow the White Rose V3.0 Planning. This provides the yearly overview and Medium-Term planning for each year group. For calculation, Newlands's calculation Policy, which follows our Mastery Approach, should be adhered to and displayed in the classroom.

The current documents are saved in:

Primary Math Folder Year 22-23_ Math Policy _ Math School Calculation Policy _ Calculation Policy

Medium Term planning - Unit plans

Teachers should write their own Medium-Term Planning using the Newlands school unit plan template. This incorporates: precision teaching, modelling, misconceptions and key questions.

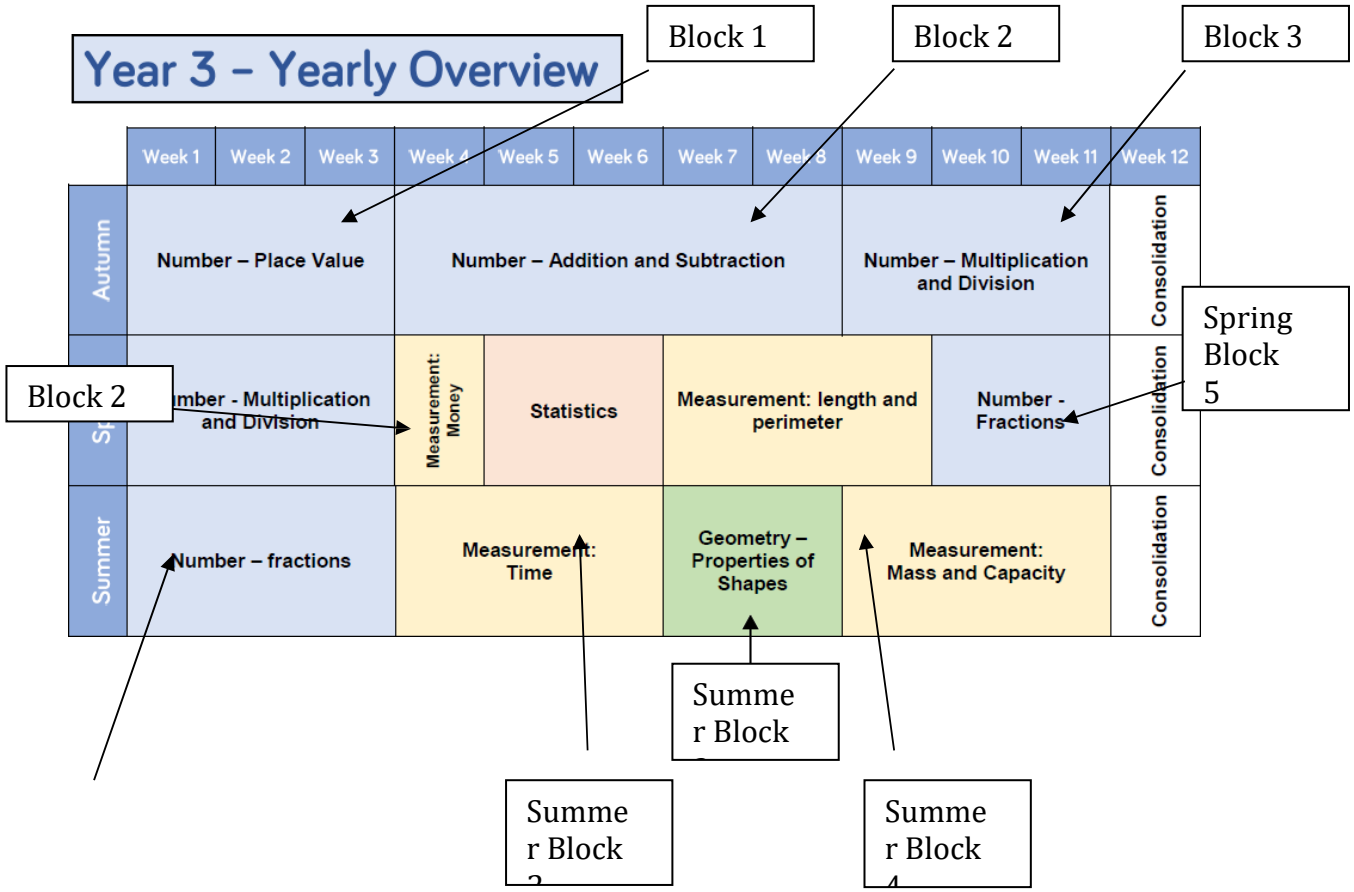
Number:

A large proportion of time is spent reinforcing number to build competency and fluency. Number is usually at the heart of any primary mastery scheme of learning, with more time devoted to this than other areas of mathematics. It is important that pupils secure these key foundations of mathematics before being introduced to more difficult concepts.

This increased focus on number will allow pupils to explore the concepts in more detail and secure a deeper understanding. Key number skills are fed through the rest of the scheme so that students become increasingly fluent.

Planning should aim for all pupils to master the age group expectations of the National Curriculum by including rich, deep activities. Rapid graspers should not be accelerated through concepts, instead they should complete Challenge questions from NCETM, White Rose etc. (See resources)

The yearly overview provides a Long Term Plan and is arranged into 'Blocks'



Each term, the Learning Objectives are listed and are time related to ensure coverage and pace.

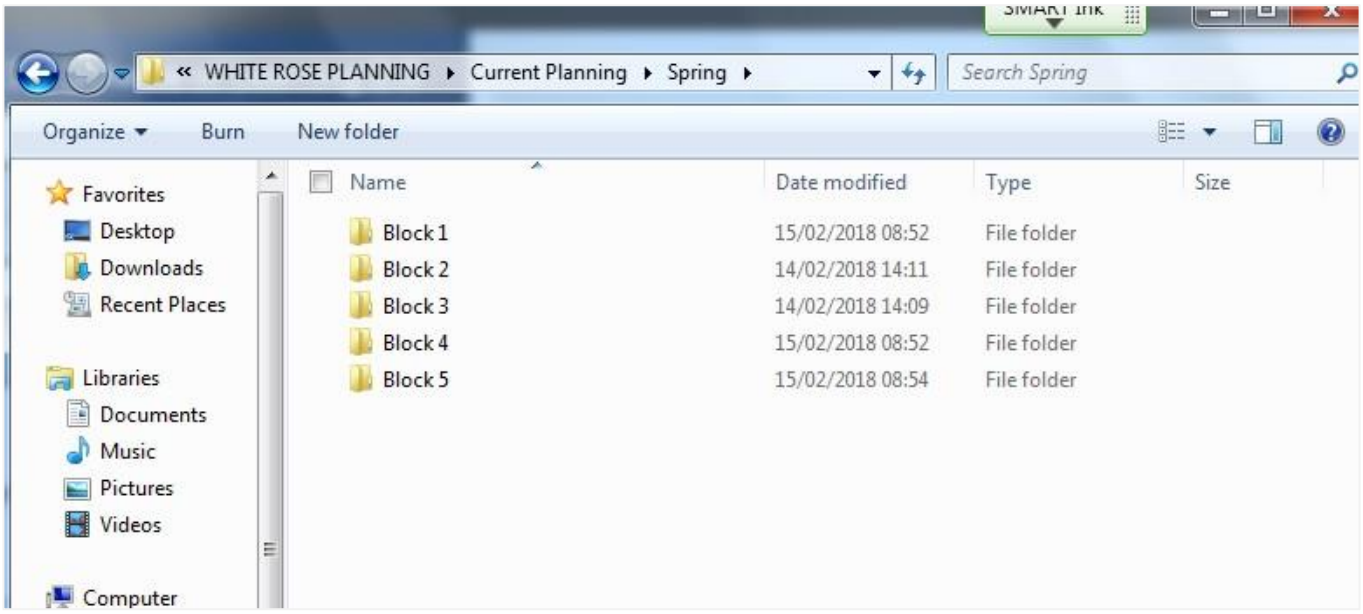
NEWLANDS School, Dubai

Year 3 (Term 3A) Unit Plan

Subject: Math	**Number of weeks: 13**	**Teacher: Prachi Jaiswal**	**Date Taught** **From: 11.04.22** **To: 27.06.22**
Unit Topic: **Measurement: Time** ***Geometry*** ***Measurement: Mass and capacity***	**21st Century Transferable Skills** • Critical Thinking • Reasoning • Problem solving • Collaboration	**UAE Culture (Links to UAE) Emiratization** • Talk about different objects found in the UAE which can be divided into equal and unequal parts. • Referring to UAE-specific information for word problems.	**Cross-Curricular Links:** Real Life connection: Students can create a simple plan for their day. This could include when they get up, the time they eat their lunch, and the time of a favorite TV show. Ask them to write out their plan using 12-hour notation. English: using vocabulary words in analyzing problems

Learning Objectives: What is the weekly 'bigger picture'?	**Learning Outcomes:** **What KNOWLEDGE will students learn?** *Students will KNOW*
Fractions and decimals *Week 1:* • *Making the whole* • *Tenths* • *Count in Tenths*	*Week 1:* - *Identify fractions of objects.* - *Answer questions about fractions of a whole.* - *Identify part fractions and whole fractions by completing number sentences.* - *Find the next tenth in the sequence.* - *Explain how 1/10 and 0.1 are equivalent*

Each 'Block' then has its own folder of planning for each year group:



Within the planning documents, there are notes and guidance, Mathematical Talk (including Stem Sentences) and examples of how to show Varied Fluency, Reasoning and Problem Solving.

Year 3 | Spring Term | Teaching Guidance

Week 1 to 3 – Number: Multiplication & Division

Comparing Statements

Notes and Guidance

Children use their knowledge of multiplication and division facts to compare statements using inequality symbols.

It is important that children are exposed to a variety of representations of multiplication and division, including arrays and repeated addition.

Mathematical Talk

What other number sentences does the array show?

If you know 4 ×, how can you use this to work out your 8 ×?

What's the same and what's different about 8 × 3 and 7 × 4?

Varied Fluency

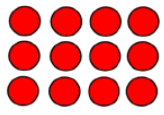
1 Use the array to complete the number sentences:

3 × 4 = ☐

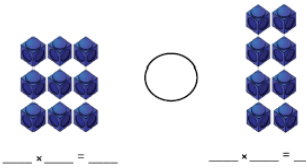
4 × 3 = ☐

☐ ÷ 3 = ☐

☐ ÷ 4 = ☐



2 Use < > or

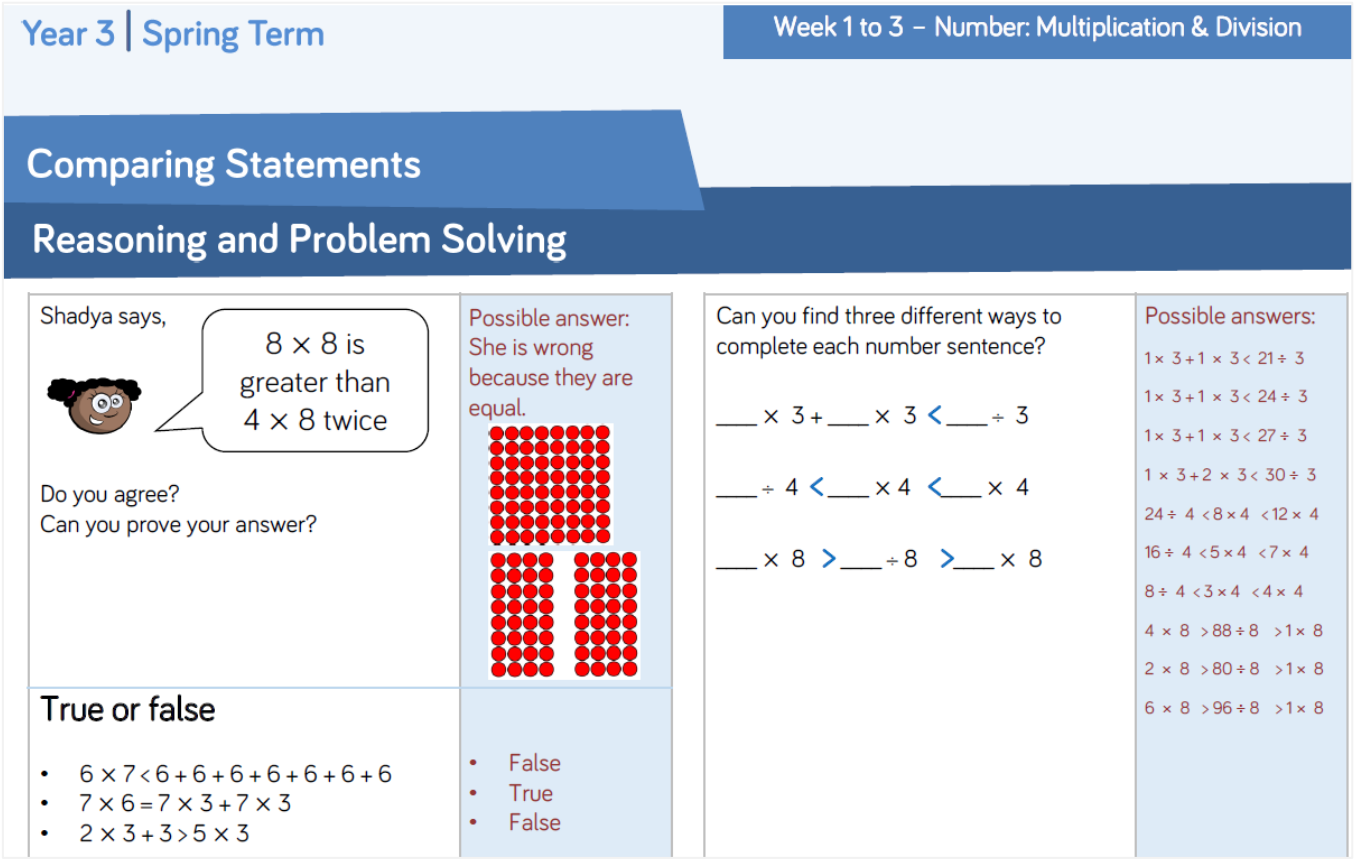


___ × ___ = ___ ___ × ___ = ___

8 × 3 ◯ 7 × 4 36 ÷ 6 ◯ 36 ÷ 4

3 Complete the number sentences:

5 × 1 < _____ × _____ 4 × 3 = _____ ÷ 3



Year 3 | Spring Term

Week 1 to 3 – Number: Multiplication & Division

Comparing Statements

Reasoning and Problem Solving

Shadya says,

8 × 8 is greater than 4 × 8 twice

Do you agree?
Can you prove your answer?

Possible answer:
She is wrong because they are equal.

True or false

- 6 × 7 < 6 + 6 + 6 + 6 + 6 + 6 + 6
- 7 × 6 = 7 × 3 + 7 × 3
- 2 × 3 + 3 > 5 × 3

- False
- True
- False

Can you find three different ways to complete each number sentence?

___ × 3 + ___ × 3 < ___ ÷ 3

___ ÷ 4 < ___ × 4 < ___ × 4

___ × 8 > ___ ÷ 8 > ___ × 8

Possible answers:

1 × 3 + 1 × 3 < 21 ÷ 3
1 × 3 + 1 × 3 < 24 ÷ 3
1 × 3 + 1 × 3 < 27 ÷ 3
1 × 3 + 2 × 3 < 30 ÷ 3
24 ÷ 4 < 8 × 4 < 12 × 4
16 ÷ 4 < 5 × 4 < 7 × 4
8 ÷ 4 < 3 × 4 < 4 × 4
4 × 8 > 88 ÷ 8 > 1 × 8
2 × 8 > 80 ÷ 8 > 1 × 8
6 × 8 > 96 ÷ 8 > 1 × 8

A range of these questions should be completed by pupils as appropriate and evident in the pupils' mathematics books – 'Snipping Tool' is an excellent program on the school computers to help teachers to create this resource for all pupils.

Academically More Able Children

More able children will be taught with their own class and stretched through differentiated group work and extra challenges. When working with the whole class, teachers will direct questions towards the more able (at their ability level) to maintain their involvement.

SEND Children

Within the daily mathematics lesson teachers aim to provide activities to support children who find mathematics challenging. Children with SEND are taught within the daily mathematics lesson and are encouraged to take part when and where possible. Where applicable children's Individual profiles incorporate suitable objectives from the National Curriculum and White Rose Maths and teachers keep these objectives in mind when planning work. SEND children also have the opportunity throughout the year to take part in appropriate Intervention programmes that support them further, fill in any gaps in their understanding and enable them to reach their full potential.

Information and Communication Technology

ICT is used in various ways to support teaching and motivate children's learning. ICT involves the computer, calculator and audio-visual aids. These technologies will however only be used in the daily mathematics lesson when 'it is the most efficient and effective way of meeting the lesson objective.

Spiritual, Moral, Social and Cultural Development

The teaching of mathematics supports the social development of children through collaborative learning. Children are often grouped so that they can work together and they are given a chance to discuss their ideas and results. The study of famous mathematicians around the world and historical methods of the number system and calculating contributes to the cultural development of our children. Mathematics contributes to children's spiritual development- children can find shapes and pattern in nature. They can see the order, logic and pattern that numbers offer opportunities for moral development are also offered - children are encouraged to discover how logical reasoning can be used to consider the consequences of particular decisions and the value of mathematical truth.

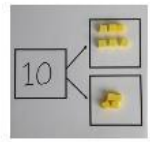
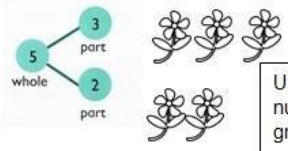
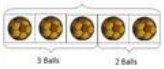
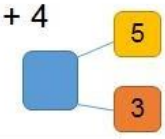
Calculation Policy

Newlands's Calculation Policy is saved in:

Primary Math Folder Year 22-23_ Math Policy_ Math School Calculation Policy_ Calculation policy EYFS- Y6

The policy should be displayed in the classroom and followed when teaching written methods. The policy demonstrates our Mastery Approach and shows progression through Ey6ach operation for each stage of learning.

Addition

Objective and Strategies	Concrete	Pictorial	Abstract
Combining two parts to make a whole: part-part-whole model	  Use cubes to add two numbers together as a group or in a bar. 	  Use pictures to add two numbers together as a group or in a bar. Ensure that the 'whole' is a variety of numbers and that you explore the many different 'parts' of the whole. 	4 + 3 = 7 10= 6 + 4  Use the part-part whole diagram as shown above to move into the abstract.

Times Tables

Times Tables are a mathematics 'Non-negotiable' and must be taught and then practised. TT Rockstars is available for the practice of times tables and 'Percy Parker' songs are saved in Primary Math Folder Year 22-23– Resources– Times table- Percy Parker

We teach times tables using the following progression:

- Year 1 - Be able to count in multiples of twos, fives and tens
- Year 2 - Be able to recall 2, 5 and 10 multiplication and division facts
- Year 3 - Be able to recall 3, 4 and 8 multiplication and division facts
- Year 4 - Be able to recall 6, 7 and 9 multiplication and division facts
- Year 5/6 - application of multiplication and division facts to problem solving

NB: All times tables to be learnt up to 12 x 12

From 2022/2023 Year 4 pupils will take an online Times Table test which will be a timed assessment testing their speed of recall for multiplication and division facts.

TT Rockstars

TT Rockstars is an initiative for Year 2 - 6. It is a fun way to practise times tables. In school, awards are given for pupils who participate and make progress on TT Rockstars. A leaderboard is displayed in the Primary corridor and updated each week.

*The 'Sound Check' programme on TT Rockstars follows the exact structure of the 2020 Year 4 Times Table Test.

Pupils are expected to log onto TT Rockstars at home for 15 minutes per week.

In school, pupils complete the TT Rockstar Paper worksheets 3-5 times per week. Each worksheet is timed and takes 3 minutes and the results are recorded onto the website. At the start of the year, a baseline test is completed and then repeated at the end of the programme.

Once a month, each teacher should book the school iPads/Laptops to spend up to 30 minutes on TT Rockstars so that the pupils (and teachers) can compete against each other and to keep motivation high.

A full guide to TT Rockstars can be found on the website.

Resources

When resourcing and planning using the White Rose V3.0 Planning, teachers to also choose resources which complement it and follow the Mastery Approach: Concrete, Pictorial and Abstract. Teachers have the flexibility to choose resources they feel are most effective to support the needs of all learners (differentiation) and ensure they

achieve the aims of fluency, reasoning and problem solving.
Resources are kept online, in classrooms and in the mathematics resource room.

- A range of 'Concrete' manipulates e.g., fraction walls, counting beads, place value counters etc.
- Power math practice books
- NCETM website
- Manga high
- Timestable rockstar
- MyMiniMaths website
- Twinkl website

Recording of Learning

Pupils have a square-paged Maths Exercise Book each. All Learning (every lesson) to be evidenced. This could be photographs, worksheets or an explanation of today's learning in Purple Pen.

e.g. 'Today I went outside and measured the Perimeter of the playground by using a Trundle Wheel. I measured each length in metres and then added each value together.'

The presentation of mathematics books to be consistent, age appropriate and show that pupils take pride in the appearance of their work.

- The date to be written as figures e.g. 05.07.18
- The Learning Objective to be at the top of the page on the left-hand side (handwritten or typed)
- When completing computations, it is recommended that the pupils fold the page in half to create two columns – this will save space and help to align place value columns.
- When sticking in question sheets/resources, these to be trimmed to ensure they fit onto the page
- Pencils and rubbers to be used – no pens (except purple pen comment)

Feedback and Marking

Immediate Intervention is essential. A pupil should leave each lesson feeling successful and any misconceptions or concerns to be addressed immediately. All teachers to follow the Newlands marking Policy. On occasion and where appropriate, pupils should have the opportunity to self and peer mark their work but the teacher should always complete their own marking and assessment.

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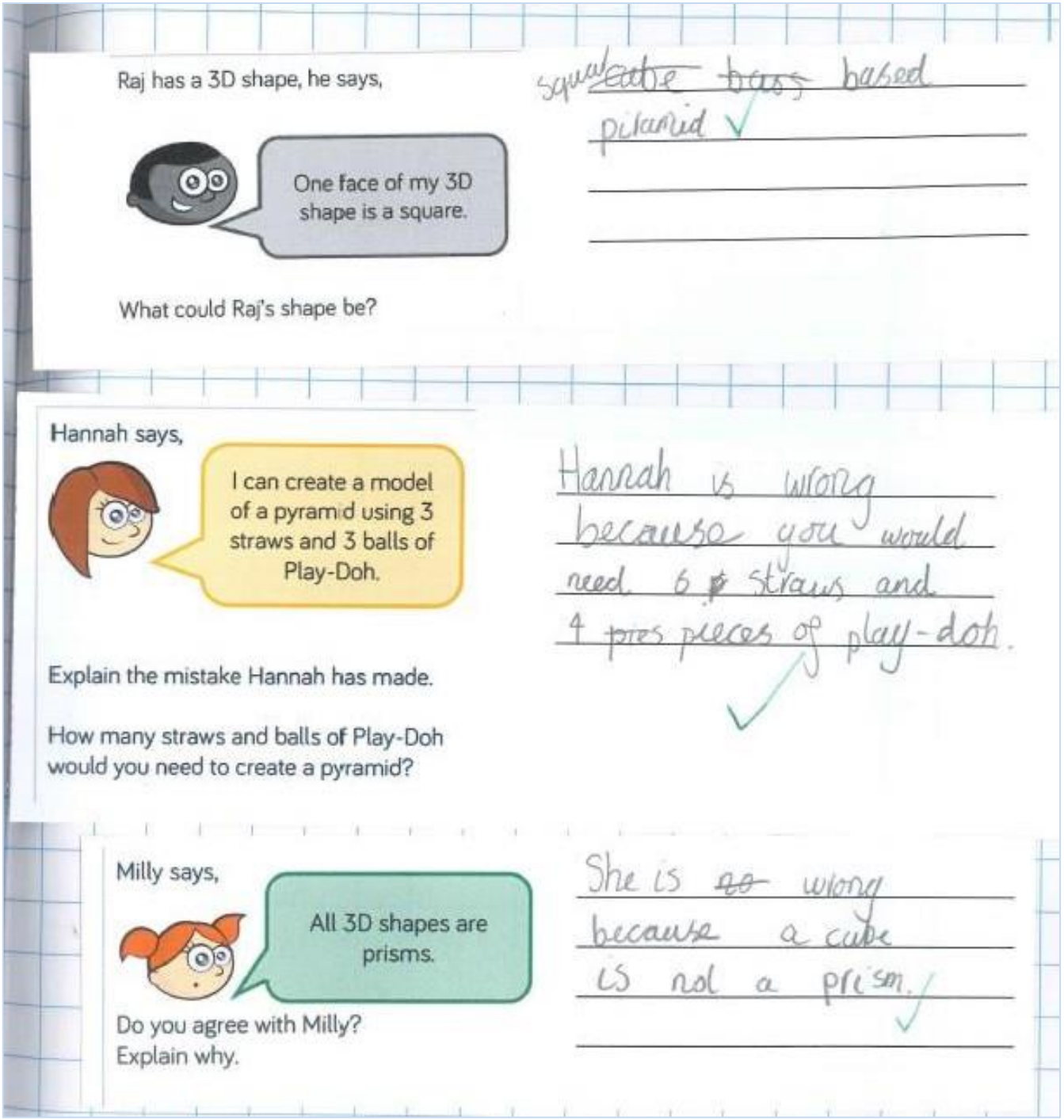
Examples of Exercise books



Raj has a 3D shape, he says,

One face of my 3D shape is a square.

What could Raj's shape be?

squ~~ar~~ ~~bas~~ based pyramid ✓

Hannah says,

I can create a model of a pyramid using 3 straws and 3 balls of Play-Doh.

Explain the mistake Hannah has made.

How many straws and balls of Play-Doh would you need to create a pyramid?

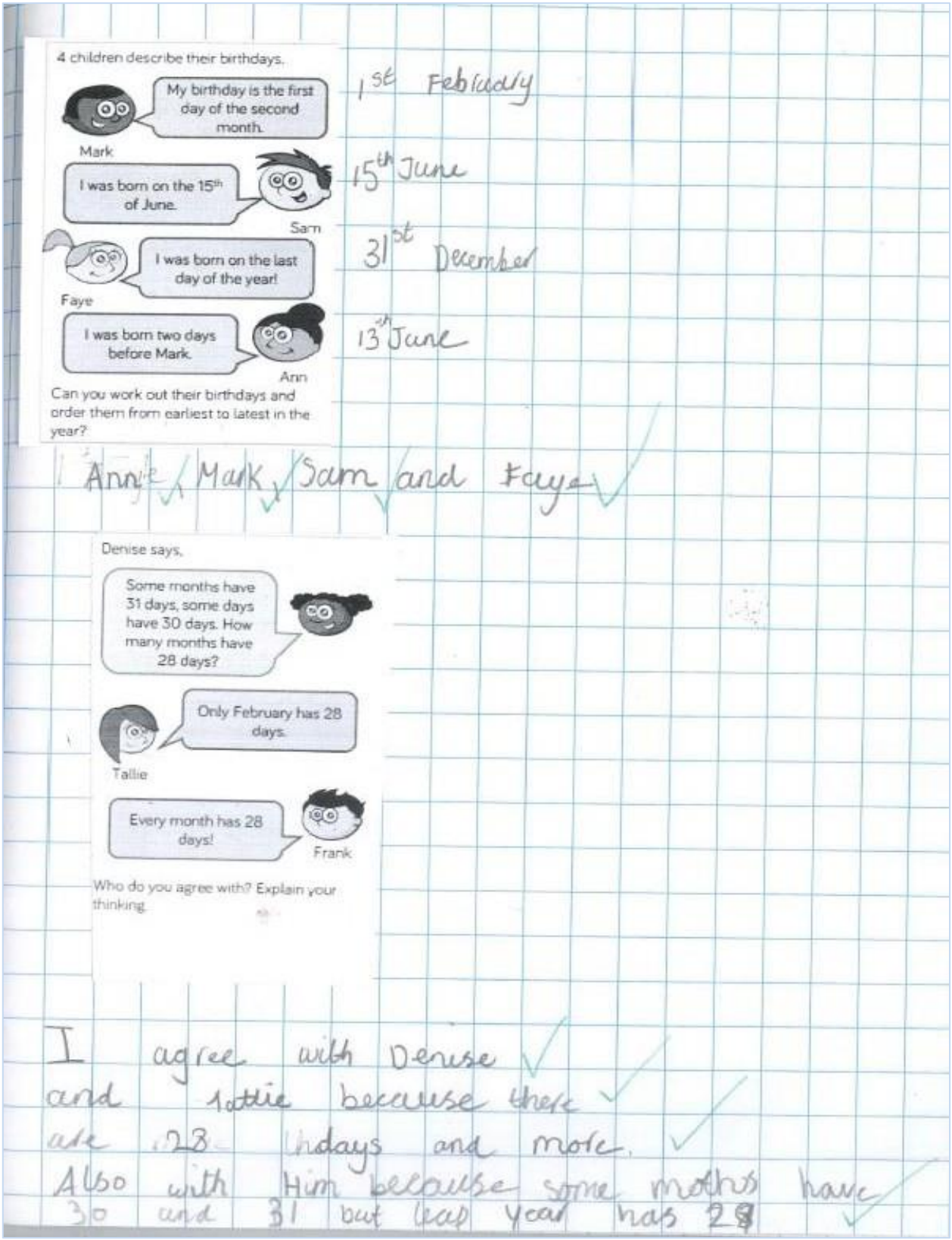
Hannah is wrong because you would need 6 straws and 4 ~~pies~~ pieces of play-doh. ✓

Milly says,

All 3D shapes are prisms.

Do you agree with Milly?
Explain why.

She is ~~so~~ wrong because a cube is not a prism. ✓



4 children describe their birthdays.

Mark: My birthday is the first day of the second month.

Sam: I was born on the 15th of June.

Faye: I was born on the last day of the year!

Ann: I was born two days before Mark.

Can you work out their birthdays and order them from earliest to latest in the year?

1st February

15th June

31st December

13th June

Ann, Mark, Sam and Faye

Denise says,

Some months have 31 days, some days have 30 days. How many months have 28 days?

Tallie: Only February has 28 days.

Frank: Every month has 28 days!

Who do you agree with? Explain your thinking.

I agree with Denise and Tallie because there are 28 days and more. Also with Him because some maths have 30 and 31 but leap year has 29

3/2/18

20. To find the effect of X or ÷ whole numbers by 10, 100 or 1000.

1) 286 x 10 = 2860 ✓
2) 345 x 100 = 34500 ✓
3) 0.9 x 100 = 90 ✓
4) 0.45 x 100 = 450 ✓
5) 407 x 10 = 4070 ✓
6) 7 x 1000 = 7000 ✓
7) 90 x 10 = 900 ✓
8) 56 x 100 = 5600 ✓
9) 7.8 x 10 = 78 ✓
10) 5 x 1000 = 5000 ✓

1) 7300 ÷ 10 = 730 ✓
2) 45 ÷ 10 = 4.5 ✓
3) 43000 ÷ 100 = 430 ✓
4) 320 ÷ 100 = 3.2 ✓
5) 54670 ÷ 10 = 5467.0 ✓
6) 7800 ÷ 1000 = 7.8 ✓
7) 345 ÷ 10 = 34.5 ✓
8) 670 ÷ 100 = 6.70 ✓
9) 3200 ÷ 1000 = 3.2 ✓
10) 4580 ÷ 100 = 4.58 ✓

1) 182 x 10 = 1820
2) 120 x 100 = 12000
3) 16.8 x 1000 = 168000
4) 8.92 x 10 = 89.2
5) 78.9 x 100 = 7890
6) 0.89 x 1000 = 890

1) 70000 ÷ 10 = 7000
2) 831000 ÷ 100 = 83100
3) 4000,000 ÷ 1000 = 4000
4) 8946 ÷ 10 = 89.46
5) 4.5 ÷ 100 = 0.045
6) 5300 ÷ 1000 = 5.3

Purple Power 0.9 = 9/10 0.6 = 6/10 2/10 = 0.2

"0.8 and 8/10 are equal in value"

Is this correct? Yes 4/10 = 0.4

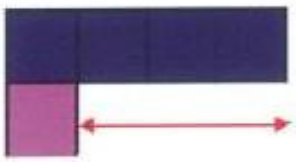
Convince me, and show me some more examples.

0.8 and 8/10 are equal in value because if you know the simulabuty between 1/10 + decimals then you'll know. Also if you know you can divide them and they would be equal in value.

0.3 = 3/10 5/10 = 0.5 0.7 = 7/10

Super!

$\frac{5}{7} - \frac{2}{7} = \frac{3}{7}$



$\frac{4}{8} - \frac{3}{8} = \frac{1}{8}$

$\frac{5}{9} - \frac{1}{9} = \frac{4}{9}$

Find the missing fractions:

$\frac{7}{7} - \frac{3}{7} = \frac{2}{7} + \frac{2}{7}$

$\frac{7}{9} - \frac{5}{9} = \frac{4}{9} - \frac{2}{9}$

Jack and Kira are solving $\frac{4}{5} - \frac{2}{5}$

Jack's method:

Kira's method:

They both say the answer is two fifths.
Can you explain how they have found their answers? They did it the same method but Jack crossed it out but Kira did a line. They are both correct.

To subtract fractions with the same denominator all you need to do is take away the numerator.

Assessment

Assessment should be regular and used to inform planning and to make the Teacher Assessment judgements at the end of each term.

Formative Assessment – Completed regularly to inform planning

- Questioning
- Written Work
- Weekly TT Rockstar Paper assessment
- End of unit checks
- End of Block White Rose Assessments

Summative Assessment

- Each Year: TT Rockstar Baseline Test* (Year 2 – 6)
- Each Term: White Rose Assessments^ (Arithmetic and Reasoning and Problem-Solving Paper)
- Each Year: GL Assessments
- Each Term: Practice SATs Papers (Years 2 and 6)

*Available on the TT Rockstars Website
^Data from these assessments must be inputted onto paradigm

All Assessment documents can be found in: Primary Math Resources_ Assessments

The White Rose Assessment results to be recorded each term and saved in: Primary Math Resources–Attainment Analysis report.

- There are no official grade boundaries for the White Rose Assessments. There are no official grade boundaries for the White Rose Assessments. However, in line with the KS1 and KS2 SATs, the following is a guideline:
- KS1 - Year 1 - a consistent score of approximately 60% (15/25) would indicate ‘Expected’ and 85% (21/25) would indicate ‘Greater Depth’.
- Year 2 - a consistent score of approximately 60% (21/35) would indicate ‘Expected’ and 85% (30/35) would indicate ‘Greater Depth’.
- KS2 - a consistent score of approximately 55% (28/50) would indicate ‘Expected’ and 86% (43/50) would indicate ‘Greater Depth’. These tests should be used to inform teacher assessment.

At the end of each term, all teachers attend a Pupil Progress meeting to share data and to discuss pupils who are ‘off target’ on Sims. These pupils should be placed into an Intervention/Booster group with a SMART target.

Non-negotiables

To ensure pupils are 'ready' for the next year group's curriculum. Teachers should ensure all pupils can complete the non-negotiable concepts. This is not at the expense of the rest of the curriculum but are the fundamental requirements to enable a child to progress. Pupils should be assessed against the 'non-negotiable' framework for their year group each term. This information is recorded on the Insight Tracker Objectives; they are listed in bold font within the year group's objectives.

Details of the non-negotiable objectives and the assessment documents can be found in:

Primary Math Folder Year 22-23_ Non-negotiable objectives

Non-negotiables should be taught and then practised during 'Starter' section of the Maths lesson.

Mathematics Classroom Environment

Mathematics should be visible in all classrooms. This could be an interactive display on the wall and/or a Maths table.

Expectations:

- Relevant concrete apparatus should be readily available for all pupils to refer to.
- Key vocabulary, pictorial and abstract representations should be visible for reference.
- Relevant sections of our Newlands's Calculation Policy to be displayed (either directly from the policy document or another child friendly version e.g. pupils's poster)
- Each classroom has a Gold Challenge box where further activities can be placed for 'Rapid Graspers' to deepen their understanding

Homework

Mathematics homework to be given on a Friday and is due back on a Wednesday. Homework to be acknowledged by the teacher. However, it can be marked in class as self/peer assessment.

Weekly homework should consist of:

- One short piece of Maths homework to help consolidate the learning they have experienced that week
- Log onto TT Rockstars/ Manga High at home for 15 minutes per week.