St Peter and St Paul's – Core Knowledge Pathway

Year One

Key Recall Fact(s)	What does this look like in class?	How can I support with this at home?
Number: I know all of my number bonds within ten **Break down:** - **Autumn 2:** Number Bonds to 6 - **Spring 2:** Doubles and Halves to 10 - **Summer 2:** Number Bonds to 10	- Lots of practice (little and often) in the whole class chanting and games time - Use of number fans - Hit the Button - Concrete resources (cubes and counters/Numicon) for children who are struggling to recall - Number families	- Lots of practice (little and often). Make use of 'free time' – e.g. car journeys - Try playing 'Hit the Button at home https://www.topmarks.co.uk/maths-games/hit-the-button **Vocabulary:** 'What is the sum of 3 and 5?' 'What should I add to 7 to make 10?' 'What is 6 minus 2?' 'What is 5 less than 9?' 'What is 10 subtract 7?'
Measure (time): I can tell the time (half past and o'clock)	- Lots of practice, revisiting even when looking at another topic - Use of class clocks - Noticing times of the day (e.g. lunchtime, home time) - Class games (e.g. What's the time, Mr Wolf?) https://www.topmarks.co.uk/time/teaching-clock https://mathsframe.co.uk/en/resources/resource/116/telling-the-time	- Lots of practice, making use of 'free time' – e.g. car journeys - Discuss time in more 'natural moments' – e.g. noticing that it is nearly 12:00/lunchtime/bedtime - Use of digital clocks is valuable, but exposure to both analogue and digital is ideal - Visual timer for activities – e.g. if there is a set time of 30 minutes for playing video games, show a countdown timer. This instils a clear understanding of the passage of time. **Vocabulary:** 'It's nearly 10:00.' 'It's just past 10:00'. 'We have half an hour until dinner – that's 30 minutes'. '**Half past** two…' 'Three **o'clock…'** https://mathsframe.co.uk/en/resources/resource/116/telling-the-time

Year Two

Key Recall Fact(s)	What does this look like in class?	How can I support with this at home?
Number: I know my number bonds to 20 **Break Down:** - **Autumn 2:** Number bonds to 20 - **Spring 2:** Halves and Doubles to 20	- Lots of practice (little and often) in the whole class chanting and games time - Use of number fans - Hit the Button - Concrete resources (cubes and counters/Numicon) for children who are struggling to recall - Number families	- Lots of practice (little and often). Make use of 'free time' – e.g. car journeys - Try playing 'Hit the Button at home https://www.topmarks.co.uk/maths-games/hit-the-button **Vocabulary:** 'What is the sum of 13 and 5?' 'What should I add to 17 to make 20?' 'What is 16 minus 2?' 'What is 15 less than 19?' 'What is 20 subtract 7?'
Number: I can recall multiplication and division facts for the 2, 5 and 10 times tables.	- Lots of practice (little and often) in whole class chanting and games time - Class games – around the world/assassin - Use of counting stick - Filling in the blanks on number lines - Hit the Button - Times Table Rock Stars - Concrete resources (cubes and counters/Numicon) for children who are struggling to recall	- Lots of practice (little and often). Make use of 'free time' – e.g. car journeys - Try playing 'Hit the Button' at home - Quick recall questions (see vocabulary) **Vocabulary:** 'What is six times ten?' 'How many tens in sixty?' 'What is 20 divided by 5?' 'How many times does 2 go into 10?' 'What is 3 groups of 2?' 'What is 6 shared between 2?'
Measure (time): I can tell the time (nearest 5 minutes, including past/to the house and quarter past/to) **Break down:** - **Autumn 2:** I can tell the time – half past/o'clock/quarter past/quarter to	- Lots of practice, revisiting even when looking at another topic - Use of class clocks - Noticing times of the day (e.g. lunchtime, home time) - Class games (e.g. What's the time, Mr Wolf?) - The 'Flower Method' https://www.topmarks.co.uk/time/teaching-clock https://mathsframe.co.uk/en/resources/resource/116/telling-the-time	- Lots of practice, making use of 'free time' – e.g. car journeys - Discuss time in more 'natural moments' – e.g. noticing that it is nearly 12:00/lunchtime/bedtime - Use of digital clocks is valuable, but exposure to both analogue and digital is ideal - Visual timer for activities – e.g. if there is a set time of 30 minutes for playing video games, show a countdown timer. This instils a clear understanding of the passage of time.

- **Spring 2:** I can tell the time in five-minute intervals (past and to the hour)		- Use a mixture of language – e.g. 15 minutes past/quarter past. **Vocabulary:** 'It's nearly 10:00.' 'It's just past 10:00'. 'We have half an hour until dinner – that's 30 minutes'. '**Half past** two…' 'Three **o'clock…'** https://mathsframe.co.uk/en/resources/resource/116/telling-the-time

Year Three

Key Recall Fact(s)	What does this look like in class?	How can I support with this at home?
Number: I know all my number bonds within 20 **Break Down:** - **Autumn 2: All** Number bonds within 20, including **all** halves and doubles	- Lots of practice (little and often) in the whole class chanting and games time - Use of number fans - Hit the Button - Concrete resources (cubes and counters/Numicon) for children who are struggling to recall - Number families	- Lots of practice (little and often). Make use of 'free time' – e.g. car journeys - Try playing 'Hit the Button at home https://www.topmarks.co.uk/maths-games/hit-the-button **Vocabulary:** 'What is the sum of 13 and 5?' 'What should I add to 17 to make 20?' 'What is 16 minus 2?' 'What is 15 less than 19?' 'What is 20 subtract 7?'
Number: I can recall multiplication and division facts for the 2,3, 4, 5, 8 and 10 times tables. **Break Down:** **Autumn 1:** Consolidate 2,5,10 **Autumn 2:** 3 times table with division facts **Spring 1:** 4 times table with division facts **Spring 2:** 8 times table with division facts	- Lots of practice (little and often) in whole class chanting and games time - Class games – around the world/assassin - Use of counting stick - Filling in the blanks on number lines - Hit the Button - Times Table Rock Stars - Concrete resources (cubes and counters/Numicon) for children who are struggling to recall	- Lots of practice (little and often). Make use of 'free time' – e.g. car journeys - Try playing 'Hit the Button' at home - Quick recall questions (see vocabulary) **Vocabulary:** 'What is six times four?' 'How many tens in sixty?' 'What is 21 divided by 3?' 'How many times does 2 go into 8?' 'What is 3 groups of 4?' 'What is 16 shared between 8?'
Measure (time): I can recall facts about time durations **Break down:** - How many minutes in an hour? - How many seconds in a minute? - How many hours in a day? - How many days in a week? - How many months in a year?	- Lots of practice, revisiting even when looking at another topic - Use of calendars - Songs and memory games	- Lots of discussion/quizzes (little and often) - Have a calendar on display in the home - Introduce dates into daily conversations – e.g. you're visiting your friend on 29th January – that's in three days. **Vocabulary:** See break down

- How many days in a year/leap year? - How many days in each month? - What day is one day before 1st February? (example)		
Measure (time): I can tell the time (nearest 1 minute)	- Lots of practice, revisiting even when looking at another topic - Use of class clocks - Noticing times of the day (e.g. lunchtime, home time) - Class games (e.g. What's the time, Mr Wolf?) - The 'Flower Method' https://www.topmarks.co.uk/time/teaching-clock https://mathsframe.co.uk/en/resources/resource/116/telling-the-time	- Lots of practice, making use of 'free time' – e.g. car journeys - Discuss time in more 'natural moments' – e.g. noticing that it is nearly 12:00/lunchtime/bedtime - Use of digital clocks is valuable, but exposure to both analogue and digital is ideal - Visual timer for activities – e.g. if there is a set time of 30 minutes for playing video games, show a countdown timer. This instils a clear understanding of the passage of time. - Use a mixture of language – e.g. 15 minutes past/quarter past. **Vocabulary:** 'Look at the clock – how many minutes past/to…' 'We have half an hour until dinner – that's 30 minutes'. https://mathsframe.co.uk/en/resources/resource/116/telling-the-time

Year Four

Key Recall Fact(s)	What does this look like in class?	How can I support with this at home?
Number: I know all my number bonds to 100 **Break Down:** - Recall most number bonds to 100 - Develop strategies for working out missing value problems mentally (e.g. 34 + ? = 100)	- Lots of practice (little and often) in the whole class chanting and games time - Use of number fans - Hit the Button - Concrete resources (cubes and counters/Numicon) for children who are struggling to recall - Number families	- Lots of practice (little and often). Make use of 'free time' – e.g. car journeys - Try playing 'Hit the Button at home https://www.topmarks.co.uk/maths-games/hit-the-button **Vocabulary:** 'What is the sum of 13 and 51?' 'What should I add to 37 to make 100?' 'What is 16 minus 12?' 'What is 55 less than 79?' 'What is 90 subtract 17?'
Number: I can recall multiplication and division facts to 12x12 **Break Down:** Children should be able to recall all multiplication and division facts by the time of the statutory assessment, commencing the week beginning June 5th.	- Lots of practice (little and often) in whole class chanting and games time - Class games – around the world/assassin - Use of counting stick - Filling in the blanks on number lines - Hit the Button - Times Table Rock Stars - Concrete resources for those struggling with recall	- Lots of practice (little and often). Make use of 'free time' – e.g. car journeys - Try playing 'Hit the Button' at home - Quick recall questions (see vocabulary) **Vocabulary:** 'What is six times four?' 'How many tens in sixty?' 'What is 21 divided by 3?' 'How many times does 2 go into 8?' 'What is 3 groups of 4?' 'What is 16 shared between 8?'
Number (fractions) I can recall decimal equivalents for common fractions **Break down:** $\frac{1}{2} = 0.5$ $\frac{1}{4} = 0.25$ $\frac{3}{4} = 0.75$ $\frac{1}{10} = 0.1$ $\frac{2}{10} = 0.2$ $\frac{5}{10} = 0.5$ $\frac{6}{10} = 0.6$ $\frac{9}{10} = 0.9$ $\frac{1}{100} = 0.01$ $\frac{7}{100} = 0.07$ $\frac{21}{100} = 0.21$ $\frac{75}{100} = 0.75$ $\frac{99}{100} = 0.99$	- Visual depictions on interactive whiteboard - Quick recall fraction facts (equivalency) - Matching Card Games https://mathsframe.co.uk/en/resources/resource/120/match_fractions_decimals_and_percentages#.UCdcd2MsCEY	- Play matching card pair game (fractions and decimals written on a set of cards – turn the card over in two to see if you can match a fraction and a decimal) **Vocabulary:** 'How many tenths is 0.4?' 'How many hundredths is 0.32?' 'What is 25% as a fraction? 'What is ½ as a decimal?' https://mathsframe.co.uk/en/resources/resource/120/match_fractions_decimals_and_percentages

Number: I can multiply and divide whole numbers and decimals by 10/100	- Use of concrete/pictorial methods – place value charts - Visual representations https://www.topmarks.co.uk/Flash.aspx?f=MovingDigitCards	- Try using some of the class games at home: https://www.topmarks.co.uk/Flash.aspx?f=MovingDigitCards **Vocabulary:** Hundreds Tens Ones Tenths Hundredths

Year Five

Key Recall Fact(s)	What does this look like in class?	How can I support with this at home?
Number: I know decimal number bonds to 1 and 10 Examples include: 0.6 + 0.4 = 1 0.31 + 0.69 = 1 3.54 + _____ = 10	- Lots of practice (little and often) in the whole class chanting and games time - Concrete resources for those struggling to recall - Quick Quizzes	- Lots of practice (little and often). Make use of 'free time' – e.g. car journeys **Vocabulary:** 'What do I add to 0.4 to make 1?' 'What is 1 subtract 0.5?'
Number: I can recall multiplication and division facts to 12 x 12, and also for the 20, 24, 25, 50 and 60 times tables. **Break Down:** Children should consolidate their knowledge of times table and division facts to 12 x 12. Understanding of 20, 25 and 50 times tables will help with learning of fractions, decimals and percentages. 24 and 60 times tables will help when converting minutes/hours/days/weeks.	- Lots of practice (little and often) in whole class chanting and games time - Class games – around the world/assassin - Use of counting stick - Filling in the blanks on number lines - Hit the Button - Times Table Rock Stars - Concrete resources for those struggling with recall	- Lots of practice (little and often). Make use of 'free time' – e.g. car journeys - Try playing 'Hit the Button' at home - Quick recall questions (see vocabulary) **Vocabulary:** 'What is six times four?' 'How many tens in sixty?' 'What is 21 divided by 3?' 'How many times does 2 go into 8?' 'What is 3 groups of 4?' 'What is 16 shared between 8?'
Measure (units): I can recall metric conversions **Break down:** 1 kilogram = 1000 grams 1 kilometre = 1000 metres 1 metre = 100 centimetres 1 metre = 1000 millimetres 1 centimetre = 10 millimetres 1 litre = 1000 millilitres	- Visual depictions - Reasoning questions - Quick recall drills in whole class chanting and games	- Encourage children to incorporate measure into their daily lives – e.g. helping with cooking, household DIY - Use these moments to encourage discussion around conversions – e.g. this needs to be 13.5cm – what is that in mm?
Number: I can identify all prime numbers up to 20	- Quick recall sessions during class chanting and games - Number trees - Factor and multiple games	- Make use of 'free time' to discuss – e.g. car journeys - Try using some of the class games at home: https://www.transum.org/Maths/Activity/Prime/

	https://www.transum.org/Maths/Activity/Prime/	**Vocabulary:** Prime (only 1 and itself as a factor) Composite (more than 2 factors)
Number: I can use factor pairs to systematically find ALL factors of a number	- Quick recall sessions during class chanting and games - Number trees - Factor and multiple games https://www.transum.org/Maths/Activity/Prime/	- Make use of 'free time' to discuss – e.g. car journeys - Try using some of the class games at home: https://www.transum.org/Maths/Activity/Prime/ **Vocabulary:** 'What are the factors of 16?' 'What are the first two multiples of 7?' 'Can you find all the factor pairs of 32?' 'Is 17 a prime number? How do you know?'
Number: I can recall all square numbers up to 12^2 and their roots	- Quick recall sessions during class chanting and games - Use of arrays - Reasoning using area of squares	- Make use of 'free time' to discuss – e.g. car journeys **Vocabulary:** 'What is 8 squared?' 'What is the square root of 9?'
Number (fractions) I can recall decimal and percentage equivalents for common fractions **Break down:** $\frac{1}{2} = 0.5$ $\frac{1}{4} = 0.25$ $\frac{3}{4} = 0.75$ $\frac{1}{10} = 0.1$ $\frac{2}{10} = 0.2$ $\frac{5}{10} = 0.5$ $\frac{6}{10} = 0.6$ $\frac{9}{10} = 0.9$ $\frac{1}{100} = 0.01$ $\frac{7}{100} = 0.07$ $\frac{21}{100} = 0.21$ $\frac{75}{100} = 0.75$ $\frac{99}{100} = 0.99$	- Visual depictions on interactive whiteboard - Quick recall fraction facts (equivalency) - Matching Card Games https://mathsframe.co.uk/en/resources/resource/120/match_fractions_decimals_and_percentages#.UCdcd2MsCEY	- Play matching card pair game (fractions and decimals written on a set of cards – turn the card over in two to see if you can match a fraction and a decimal) **Vocabulary:** 'How many tenths is 0.4?' 'How many hundredths is 0.32?' 'What is 25% as a fraction? 'What is ½ as a decimal?' https://mathsframe.co.uk/en/resources/resource/120/match_fractions_decimals_and_percentages

Year Six

Key Recall Fact(s)	What does this look like in class?	How can I support with this at home?
Number: *Consolidation* - I can recall multiplication and division facts to 12 x 12, and also for the 20, 24, 25, 50 and 60 times tables. **Break Down:** Children should consolidate their knowledge of times table and division facts to 12 x 12. Understanding of 20, 25 and 50 times tables will help with learning of fractions, decimals and percentages. 24 and 60 times tables will help when converting minutes/hours/days/weeks.	- Lots of practice (little and often) in whole class chanting and games time - Class games – around the world/assassin - Use of counting stick - Filling in the blanks on number lines - Hit the Button - Times Table Rock Stars - Concrete resources for those struggling with recall	- Lots of practice (little and often). Make use of 'free time' – e.g. car journeys - Try playing 'Hit the Button' at home - Quick recall questions (see vocabulary) **Vocabulary:** 'What is six times four?' 'How many tens in sixty?' 'What is 21 divided by 3?' 'How many times does 2 go into 8?' 'What is 3 groups of 4?' 'What is 16 shared between 8?'
Number: I can identify all prime numbers up to 50	- Quick recall sessions during class chanting and games - Number trees - Factor and multiple games https://www.transum.org/Maths/Activity/Prime/	- Make use of 'free time' to discuss – e.g. car journeys - Try using some of the class games at home: https://www.transum.org/Maths/Activity/Prime/ **Vocabulary:** Prime (only 1 and itself as a factor) Composite (more than 2 factors)
Number: I can use factor pairs to systematically find ALL common factors of a pair of numbers	- Quick recall sessions during class chanting and games - Number trees - Factor and multiple games https://www.transum.org/Maths/Activity/Prime/	- Make use of 'free time' to discuss – e.g. car journeys - Try using some of the class games at home: https://www.transum.org/Maths/Activity/Prime/ **Vocabulary:** 'What are the factors of 16?' 'What are the first two multiples of 7?' 'Can you find all the factor pairs of 32?' 'Is 17 a prime number? How do you know?'