|  | Main focus of teaching and activities each day | Starter | Outcomes and plenary for each day |
| :---: | :---: | :---: | :---: |
| 1 | Mental skills for week: <br> Count on and back in steps of 50, 1 more/less crossing 10s and 100s, 10 more/less crossing 100s, counting in steps of 1000, |  |  |
|  | Vocabulary for week: <br> add, addition, more, plus, increase sum, total, altogether score double, near double how many more to make...? subtract, subtraction, take (away), minus, decrease leave, how many are left/left over? difference between half, halve how many more/fewer is... than...? how much more/less is...? equals, sign, is the same as tens boundary, hundreds boundary inverse |  |  |
|  | Day 1: Add up to two 4-digit numbers - no exchange CGP pg. 29 Set B. <br> Day 2: Add two 4-digit numbers - one exchange CGP pg. 29 Set B. <br> Day 3: Add two 4-digit numbers - more than one exchange <br> Longer plenary - Reasoning (addition word problems) <br> WRM R\&PS PPT, slide 6. <br> Busy Ants A, pg. 31 <br> Day 4: Teacher planned revision of all work covered so far <br> Addition Word Problems/place value HTU <br> Day 5: | Day 1: Count on and back in steps of 50 from 0 to at least 1000 <br> Day 2: Quick timed arithmetic test <br> (10mins) 1 more/1 less (crossing 10s and 100s) <br> Day 3: 10 more/10 less <br> Day 4: Count on and back in steps of 1000 to 10,000 | Day 1: Demo on board - add 3- or 4digit numbers with no exchanges, using concrete resources as well as the formal written method. Use Base 10 and counters to show. Demo, chn then complete on whiteboards with guidance then independent before questions in book. <br> Plenary - WRM R\&PS PPT, slide 7. Partner work. <br> Day 2: begin from the "smallest value column" rather than the "ones column" to avoid any misconceptions when decimals are introduced later in the year. After each column is added, ask, "Do you have enough ones/ tens/hundreds to make an exchange?" Demo, chn then complete on whiteboards with guidance then independent before questions in book. |


|  |  |  | Plenary - WRM R\&PS PPT, slide 15. Partner work. <br> Day 3: Longer session - Reasoning with written explanation <br> Go over RUCSAC and work through question <br> WRM R\&PS PPT, slide 6. Partner work. Complete each step in book. <br> Plenary - WRM R\&PS slide 10 <br> Day 4: Revise RUCSAC. Chn work though questions. <br> Day 5: |
| :---: | :---: | :---: | :---: |
| 2 | Mental skills for week: <br> Number bonds to 10, number bonds to 20, mental addition strategies (partition, near doubles), |  |  |
|  | Vocabulary for week: <br> add, addition, more, plus, increase sum, total, altogether score double, near double how many more to make...? subtract, subtraction, take (away), minus, decrease leave, how many are left/left over? difference between half, halve how many more/fewer is... than...? how much more/less is...? equals, sign, is the same as tens boundary, hundreds boundary inverse |  |  |
|  | Day 1: $+/-1 \mathrm{~s}, 10 \mathrm{~s}, 100 \mathrm{~s}$ and 1000s (WRM) <br> Target Maths pg. 16 <br> Day 2: <br> Longer session -introduce / develop mental skills practise, jottings and applying <br> Target Maths - pg. 17. Set A. <br> Day 3: Subtract two 4-digit numbers - no exchange | Day 1: Know by heart the total of any pair of single-digit numbers <br> Start with number bonds to 10 . Use digit cards and in pairs turn a card and give pair to 10 . If incorrect rehearse at least 5 times. Mental Maths Starter Target maths - pg 14. <br> Sort vocabulary - addition/subtraction | Day 1: children recap this learning and extend their understanding to dealing with 4-digit numbers and adding and subtracting multiples of 1,000 . The focus is on mental rather than written strategies. It is important to explore the effect of either adding or subtracting a multiple of 1,10 , 100 or 1,000 by discussing which columns always, sometimes and never change. |



|  |  |  | Day 5: Quick timed arithmetic test (10mins) |
| :---: | :---: | :---: | :---: |
| 3 | Mental skills for week: <br> Mental +/- with multiples of 10 and 100, digit cards with 4-digit numbers |  |  |
|  | Vocabulary for week: add, addition, more, plus, increase sum, total, altogether score double, near double how many more to make...? subtract, subtraction, take (away), minus, decrease leave, how many are left/left over? difference between half, halve how many more/fewer is... than...? how much more/less is...? equals, sign, is the same as tens boundary, hundreds boundary inverse |  |  |
|  | Day 1: Subtract two 4-digit numbers - one exchange Target Maths - pg. 24, Set B 1-5. Word Problems Set A 11,12 Set B 11 <br> Day 2: Subtract two 4-digit numbers - more than one exchange <br> Day 3: Efficient subtraction <br> Longer plenary - Reasoning (addition word problems) <br> Day 4: Teacher planned revision of all work covered so far Revision of RUCSAC and vocabulary <br> Day 5: | Day 1: Mental +/- multiples of 10 (which columns 'never, sometimes, always' change) <br> Day 2: Mental +/- multiples of 100 (which columns 'never, sometimes, always' change) <br> Day 3: Digit cards - use digit cards to make 4-digit numbers (PPT) <br> Day 4: Digit cards - use digit cards to make 4-digit numbers (PPT) | Day 1: Use WRM digital resources to show subtraction where one exchange is needed. Reiterate importance of question 'Do I have enough ... to take away?' <br> Target Maths - pg. 24, Set B 1-5. Word Problems Set A 11,12 Set B 11 <br> Plenary - WRM R\&PS slide 18 <br> Day 2: Use WRM digital resources to show subtraction where more than one exchange is needed. Reiterate importance of question 'Do I have enough ... to take away?' Chn complete on whiteboard with partner. <br> Plenary - WRM R\&PS slide 19 <br> Day 3: Longer session - Reasoning with written explanation |


|  |  |  | Use WRM PPT to discuss most efficient methods - partner work. Does it always need to be a written method? <br> Reasoning - CGP pg. 31. Set B 10, Set C 11-13.pg. 33 Q 58, 59 <br> Day 4: Revise language to identify in addition and subtraction word problems. <br> Answer Testbase problems. <br> Day 5: |
| :---: | :---: | :---: | :---: |
| 4 | Mental skills for week: <br> Multiplication x6, odds/evens, doubles and halves |  |  |
|  | Vocabulary for week: <br> units, ones tens, hundreds, thousands ten thousand, 'teens' number place, place value stands for, represe greater than, more than, larger than, bigger than | ndred thousand, million digit, one-, two-, exchange the same number as, as many | hree- or four-digit number numeral equal to Of two objects/amounts: >, |
|  | Day 1: Represent numbers to 10,000 <br> WRM maths questions <br> Busy Ants A, pg. 5 <br> Day 2: Partition numbers to 10,000 <br> Longer session -introduce / develop mental skills practise, jottings and applying <br> WRM sheet <br> Day 3: Flexible partitioning of numbers to 10,000 <br> Longer plenary - Reasoning (addition word problems) <br> WRM sheet | Day 1: Multiplication x6 <br> Day 2: revision of odds and evens Longer session -introduce / develop mental skills - practise, jottings and applying <br> Day 3: double and halve numbers (twodigit numbers) <br> Day 4: double and halve numbers (twodigit numbers) | Day 1: Use the WRM digital resources to show numbers up to 10000. <br> Ask key questions: <br> What number is represented? • What is the value of each digit? - Represent 4,672 using base $10 /$ place value counters. How many thousands, hundreds, tens and ones are in the number? • How would you represent $6,000+0+60+9$ in the place value chart? • How do you know the counter in the thousands column has a greater |



|  |  |  | Longer session - Reasoning with written explanation <br> Plenary - WRM R\&PS slide 18-20 <br> Day 4: Teacher planned revision of all work covered so far <br> Day 5: |
| :---: | :---: | :---: | :---: |
| 5 | Mental skills for week: <br> X8, mental addition and subtraction strategies (NNS - making multiples of 10, partitioning), counting on and back 1000 |  |  |
|  | Vocabulary for week: <br> units, ones tens, hundreds, thousands ten thousand, hundred thousand, million digit, one-, two-, three- or four-digit number numeral 'teens' number place, place value stands for, represents exchange the same number as, as many as equal to Of two objects/amounts: >, greater than, more than, larger than, bigger than |  |  |
|  | Day 1: Half - termly arithmetic test - formal to be analysed number line to 10000 <br> WRM sheet <br> Day 2: compare numbers to 10000 <br> WRM sheet <br> Day 3: order numbers to 10000 <br> CGP pg.9, Target Maths 5 <br> Busy Ants A pg 6 <br> Longer plenary - Reasoning (addition word problems) <br> Day 4: Teacher planned revision of all work covered so far | Day 1: Multiplication x8 <br> Day 2: mental addition and subtraction (strategies - making multiples of 10. NNS pg. 25) <br> Day 3: partitioning using multiples of 10 and 100 (NNS pg.27) <br> Day 4: counting on and back 1000 (CGP pg6) <br> Day 5: | Day 1: Children discuss suitable estimates from the information given on the number line and the value of each interval, justifying their choices. Encourage children to identify the midpoint and to mark on additional points, for example one-quarter and three-quarters of the way along, to help them position the numbers. WRM sheet <br> Plenary - WRM R\&PS slide 25 (partner work) <br> Day 2: Demonstrate to children that when comparing numbers, they need to start with the greatest place value. If |



|  |  |  | Make up an example Create four digit numbers where the digit sum is four and the tens digit is one. <br> Eg 1210, 2110, 3010 <br> What is the largest/smallest number? <br> Day 4: <br> Spot the mistake: $950,975,1000,1250$ <br> What is wrong with this sequence of numbers? <br> Day 5: |
| :---: | :---: | :---: | :---: |
| 6 | Mental skills for week: <br> X9, mental strategies to calculate multiplication facts we can't recall |  |  |
|  | Vocabulary for week: <br> round (up or down), nearest round to the nearest ten round to the nearest hundred units, ones tens, hundreds, thousands ten thousand, hundred thousand, million digit, one-, two-, three- or four-digit number numeral 'teens' number place, place value stands for, represents exchange the same number as, as many as equal to Of two objects/amounts: >, greater than, more than, larger than, bigger than |  |  |
|  | Day 1: Round to the nearest 10 <br> Target Maths pg. 10-11 <br> CGP pg. 10-11 <br> Day 2: Round to the nearest 100 <br> Day 3: Round to the nearest 1000 <br> Longer plenary - Reasoning (addition word problems) | Day 1: Multiplication x9 <br> Day 2: how to work out facts we can't recall (NNS - pg.40) <br> Write $2 \times 3=6$. What else do we know? Repeat with another xtable. Longer session -introduce / develop mental skills - practise, jottings and applying | Day 1: explain we use rounding to help us estimate answers. <br> Demonstrate using a vertical number line. <br> Chn copy on whiteboards and repeat process to partners. <br> Plenary - WRM R\&PS slide 43 |
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|  |  |  |  |
|  | Day 4: Teacher planned revision of all work covered so far | Day 3: Use known multiplication facts | Day 2: Revise from yesterday and introduce how to round to nearest hundred. |


|  | Day 5: | Day 4: | Plenary - CGP pg 11. Set C 12-14 <br> Day 3: Longer session - Reasoning with <br> written explanation <br> Possible answers <br> A number rounded to the nearest ten is <br> 540 . What is the smallest possible number <br> it could be? |
| :--- | :--- | :--- | :--- | :--- |
| What do you notice? |  |  |  |
| Round 296 to the nearest 10. Round it to |  |  |  |
| the nearest 100. What do you notice? Can |  |  |  |
| you suggest other numbers like this? |  |  |  |
| Day 4: |  |  |  |


| 'FIVE A DAY' APPROACH |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Explicit Instruction | Cognitive and Metacognitive Strategies | Scaffolding | Flexible Grouping | Using Technology |
| - Teacher explanation. Addition and subtraction formal methods. Rounding, multi-step problems <br> - Practice of routine exercises. Vertical number lines for rounding, PV grid for multiplying and dividing by 10, 100, applying RUCSAC and creating number sentences <br> - Small steps. Formal written methods <br> - Examples and nonexamples. <br> - Clear and unambiguous language. <br> - Using carefully selected visual aids. WRM digital resources. Base 10, place value counters <br> - Modelling how to complete a task. Using formal method. Vertical number line for rounding <br> - Anticipating and planning for misconceptions. Place value placement when $+/$ - ThHTU and HTU | - Explicitly teach metacognitive strategies (how to plan, monitor and evaluate learning, graphic organisers). <br> - Model own thinking. Answering problems <br> - Set appropriate level of challenge to develop selfregulation \& cognitive skills. <br> - Promote and develop metacognitive talk. <br> - Teach how to organise \& effectively manage their learning independently. <br> - Introducing content in small steps. <br> - Helping pupils consider new ways to remember new information. <br> - Frequently ask learners to recall previously taught content. | - Visual (e.g partially completed model). Examples in books <br> - Written (e.g. list of key words and phrases). <br> - Verbal (e.g. reteaching key content following a misconception). <br> - Writing frames. <br> - Task checklist. <br> - 'I do/we do/you do'. | - Groups based on current individual needs shared with others. <br> Address daily needs based on AfL from lesson- may be done within a lesson or for intervention/next lesson <br> - Additional explicit instruction required. Monitor target children and provide when needed -OA, HC, KS-S, ZM <br> - Maths Partners (mixed ability). For answering R\&PS <br> - Group supported by teacher. <br> - Group supported by TA. | - Instructional apps. <br> - Apps to provide tools to aid learning. <br> - Speech-generating apps for communication. <br> - Delivery of subject content (PPT, videos, photographs, interactive games, etc). <br> Use of models on interactive whiteboard (WRM), interactive games. Hundred square with decimals <br> - Assessment opportunities (quiz). <br> - Class collaboration - OneNote (shared content, individual drafting, support materials). |

- Highlighting essential content \& removing distracting information.
- Checking pupils' understanding.
- Promote metacognition.
- Given a number, identify 10,100 or 1000 more/less
- Recognise the value of each digit in a four-digit number
- Round any number to the nearest 10,100 or 1,000
- Recognise the place value of each digit in a decimal number with up to two decimal places
- Round decimal numbers with one decimal places to the nearest whole number
- Find pairs of decimal numbers that total one (e.g.0.4 and 0.6)
- Derive addition and subtraction facts for pairs of numbers that total 100
- Know addition/subtraction facts for multiples of 100 that total 1,000
- Derive addition and subtraction facts for multiples of 50 to 1,000 and multiples of 10 to 1,000
- Count in multiples of $2,3,4,5, \mathbf{6}, \mathbf{7}, 8,9,10, \mathbf{1 1}, \mathbf{1 2}, \mathbf{2 5}, 50,100$ and 1000 from 0 , forwards and backwards (to the $12^{\text {th }}$ multiple)
- Recall multiplication and division facts for multiplication tables up to $12 \times 12$
- Understand the effect of multiplying by 0 or 1 and dividing by 1
- Recognise and identify factor pairs
- Understand the effect of multiplying/dividing numbers by $10 / 100$, including decimal numbers
- Recall doubles of two-digit numbers and derive doubles of three-digit numbers and find the corresponding halves
- Estimate the answer to a calculation, including the use of rounding, and use inverse operations to check

Week 2
Day 1

Mr Hall has $£ 1,342$ in the bank.
a) Mr Hall puts in $£ 500$ more.

How much money does he have in the bank now?

b) Then he puts in $£ 600$ more.

How much money does Mr Hall have in the bank now?
$\square$
c) Then Mr Hall takes out $£ 60$

How much money does he have in the bank now?
$\square$

Week 2
Day 3
Work out the subtractions. Show your workings.
a) 6,205-104
c) $5,371-3,260$
b) $3,749-1,642$
d) 9,853-853

The distance from $A$ to $B$ is $2,365 \mathrm{~m}$.
The distance from A to C is $5,875 \mathrm{~m}$ in the same direction.
How far is C from B ?


5,875 m

Whitney and Ron are playing a game.
Whitney has 1,353 points.
Ron has 230 points fewer than Whitney.
How many points do they have altogether?

