Addition, Subtraction, Multiplication and Division: Inspector Clue

Aim:

Divide numbers up to four digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context.

I can divide using a formal written method and interpret remainders according to the context.

Key/New Words:

Division, divide, how many, short division, place value, calculation, number sentence, written method, dividend, divisor, rounding.

Success Criteria:

I can use known multiplication facts to complete calculations.

I understand why place value is important whilst performing written calculations.

I can use a written method to solve a calculation.

I can divide four-digit numbers by a two-digit number.

I can round up or down depending on the context.

Resources:

Lesson Pack Scissors Glue sticks

Preparation:

Differentiated Problem Solver Activity
Sheets - 1 per child
Short Division Record Sheet - 1 per child
Extra Challenge Activity Sheet - as required

Prior Learning: It will be helpful if children understand place value and know their multiplication facts up to 12 × 12 prior to the lesson.

Learning Sequence



Eighteen: Using the Lesson Presentation, children use the numbers adjacent (including diagonally) to make 18 using addition, subtraction, multiplication, division, orders and brackets. You could introduce a score system based on the number of operations or numbers used.



Searching For Clues (1): Revise the written strategy, short division and interpret remainders depending on the context, by talking through the information on the **Lesson Presentation**. Repeat with additional examples if necessary.





Searching For Clues (2): Using the Lesson Presentation, the children solve the word problems using the formal written method, short division and interpret the remainders by rounding up or down depending on the context. Can the children explain how they completed the calculation? Did they choose to use short division? Did any known facts help them to complete the calculation? Did children round their answers correctly? Did the children check their answer?





Problem Solver: Explain to the children that they will be completing a range of questions on the differentiated **Problem Solver Activity Sheets** that will require them to perform calculations using the strategy demonstrated earlier in the lesson. Children can use the **Short Division Record Sheet** to work out their answers.





Children read and sort the word questions into the correct category before completing the two and three-digit division calculations using the written method, short division and interpret any remainders depending on the context.



Children read and sort the word questions into the correct category before completing the two and four-digit division calculations using the written method, short division and interpret any remainders depending on the context.



Children complete
one and two-step
calculations involving
two and four-digit
division equations and
interpret any remainders
according to the context.
An Extra Challenge
Activity Sheet is
provided as an extension
activity if required.



Problem Creator: Ask the children to create their own division problems for a partner to solve. Alternatively, you could use some of the examples generated from the children who have completed the **Extra Challenge Activity**Sheet

Masterit

Timeit: Children compete to complete <u>Bus Stop Method Formal Division of Four-Digit Numbers by Two-Digit Numbers Activity Sheet</u> in

the shortest time possible.

Practiseit: Children practise short division using this Division Practise Working in Context Activity Sheet.

