

Year 5 Multiplication Strategies

National Curriculum

- multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers
- multiply and divide numbers mentally drawing upon known facts

Children will need to know how to partition 4 digit numbers and the value of each digit.

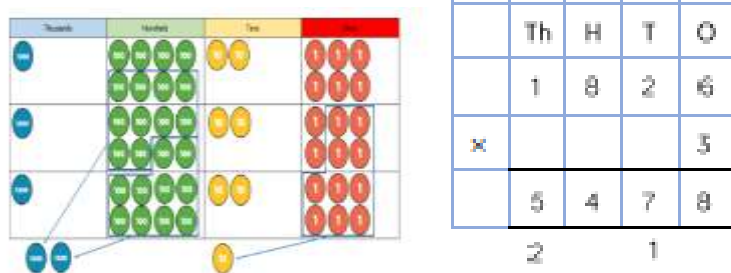
Children will need to know how to use Diennes apparatus and place value counters to multiply 4 digits by 1 and 2 digits

When multiplying 4 digit numbers, place value counters are the best manipulative to use to support children in their understanding of formal written method.

If children are multiplying larger numbers and struggling with their times tables, encourage the use of multiplication grids so children can focus on the use of the written method.

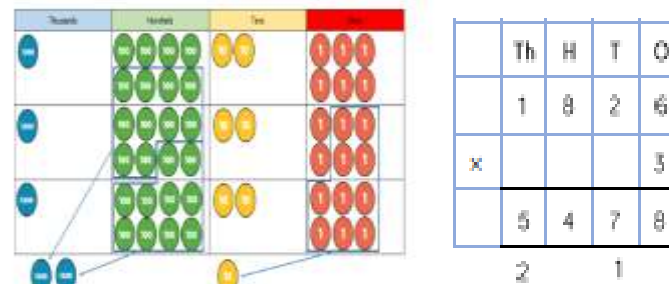
Concrete

$$1826 \times 3 =$$



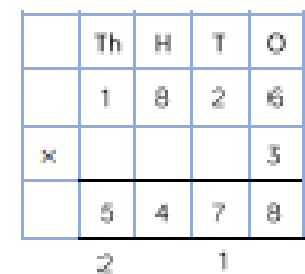
Pictorial

$$1826 \times 3 =$$

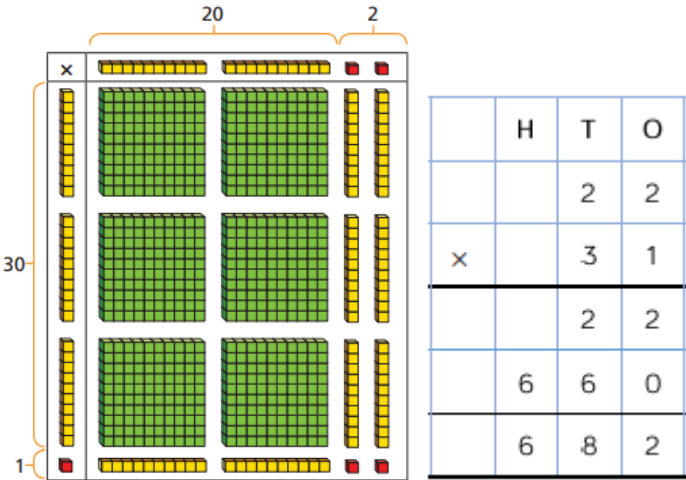


Abstract

$$1826 \times 3 =$$

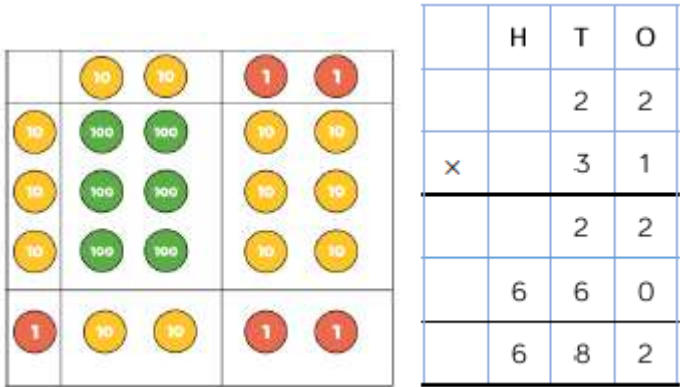


Multiplying by 2 digits



Place value counters should be used to support the understanding of the method rather than the multiplication as children should use timetable knowledge.

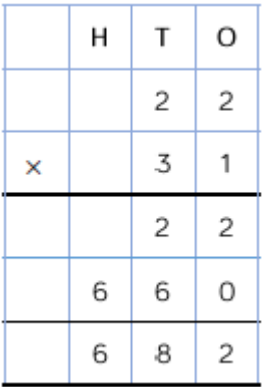
Multiplying by 2 digits



x	20	2
30	600	60
1	20	2

The drawing of the place value counters should be used to support the understanding of the method rather than the multiplication as children should use timetable knowledge.

Multiplying by 2 digits



Year 5 Division Strategies

National Curriculum

- divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context

Children will need to know how to partition 4 digit numbers and the value of each digit.

Children will need to know how to use Diennes apparatus and place value counters to divide 4 digits by 1 digit

When dividing numbers involving exchanging, children can use Diennes and place value counters to exchange.

Children should start with the equipment outside the place value grid before sharing the thousands, hundreds, tens and ones equally between the rows, this highlights if there are any remainders.

Concrete

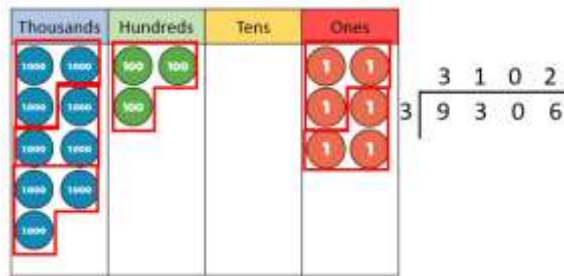
$$9,306 \div 3 =$$



Place value counters should be used to support the understanding of the method rather than the multiplication as children should use timetable knowledge.

Pictorial

$$9,306 \div 3 =$$



The drawing of the place value counters should be used to support the understanding of the method rather than the multiplication as children should use timetable knowledge.

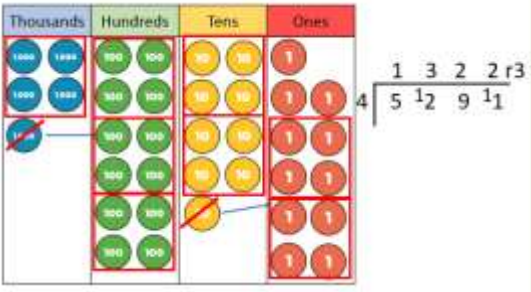
Abstract

$$9,306 \div 3 =$$

$$\begin{array}{r} 3102 \\ 3 \overline{) 9306} \end{array}$$

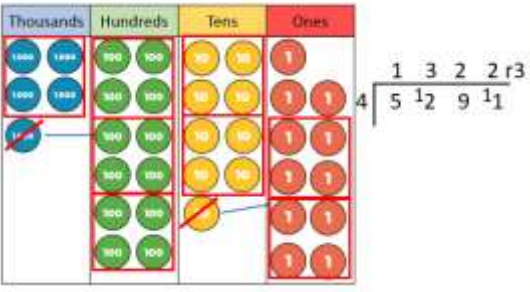
With remainders

5291 ÷ 4 =



With remainders

5291 ÷ 4 =



With remainders

5291 ÷ 4 =

$$4 \overline{) 5291} \begin{array}{r} 1322 \\ \underline{4} \\ 12 \\ \underline{12} \\ 9 \\ \underline{8} \\ 11 \\ \underline{8} \\ 3 \end{array} r3$$