**Multiplication and Division**

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| **Stage** | **CDM Ref.** | **Small Steps** |
| 1 | 1.14 | Double numbers up to at least 10 |
| Halve numbers up to (at least) 20 |
| Count (from zero) in equal steps of 2s |
| Count (from zero) in equal steps of 5s |
| Count (from zero) in equal steps of 10s |
| Use equal groups for multiplication |
| Use arrays for multiplication |
| Use grouping for division |
| Use sharing for division |
| Decide whether to multiply or divide to represent problems |
| 2 | 2.6 | Count in steps of 3 from zero |
| Show and use the connection between multiplication and repeated addition |
| Create multiplication statements to describe and solve equal grouping problems |
| Use arrays to solve multiplication problems |
| Show and use the commutativity of multiplication |
| Create division statements to describe and solve grouping problems |
| Create division statements to describe sharing and solve problems |
| Show that division is not commutative |
| 3 | 3.9 | Multiply 2-digit numbers by 10 using place value |
| Multiply 1-digit numbers by multiples of 10 using place value |
| Use the distributive law to multiply a teens number by a one-digit number |
| Use the distributive law to multiply a two-digit number by a one-digit number |
| Multiply 2-digit numbers by a 1-digit number using a formal written method (regroup ones) |
| Multiply 2-digit numbers by a 1-digit number using a formal written method (regroup tens) |
| Multiply 2-digit numbers by a 1-digit number using a formal written method (multiple) |
| Use efficient methods to multiply a two-digit number by a one-digit number |
| Divide near multiples by 2, 3, 4, 5, 8, 10 with remainders |
| Divide a 3-digit multiple of ten by 10 using place value |
| Use known facts and place value when dividing mentally by 2, 3, 4, 5, and 8 e.g. 120 ÷ 4 |
| Use partitioning to divide by a single digit number where the quotient is a teens number |
| Use multiplication or division to solve scaling or correspondence problems |
| 4 | 4.3 | Know and use the effect of multiplying by 0 |
| Know and use the effect of multiplying by 1 |
| Know and use the effect of dividing by 1 |
| 4.9a | Multiply 1-digit numbers by multiples of 10 using place value (6, 7, 9) |
| Use the distributive law to multiply a two-digit number by a one-digit number (6, 7, 9) |
| Multiply 2-digit number by a 1-digit number using a formal written method (6, 7, 9) |
| Multiply 1 and 2-digit numbers by 100 |
| Multiply 3-digit number by a 1 digit number using a formal written method (regroup ones) |
| Multiply 3-digit number by a 1 digit number using a formal written method (regroup tens) |
| Multiply 3-digit number by a 1 digit number using a formal written method (regroup hundreds) |
| Multiply 3-digit number by a 1 digit number using a formal written method (multiple regroup) |
| 4.9b | Divide multiples of ten by 10 |
| Divide multiples of a hundred by 100 |
| Use known facts and place value when dividing mentally e.g. 120 ÷ 6, 1200÷ 6, 1320÷ 12 |
| Divide near multiples by 6, 7, 9, 11 and 12 with remainders |
| Divide 3-digit number by a single digit number using partitioning and place value |
| Use written method to divide a 3-digit number by a single digit number (hundreds = multiple of divisor, tens > divisor) with no remainder |
| Use written method to divide a 3-digit number by a single digit number (hundreds > divisor, one exchange) with no remainder |
| Use written method to divide a 3-digit number by a single digit number (hundreds > divisor, two exchanges) with no remainder |
| Use written method to divide a 3-digit number by a single digit number (hundreds < divisor) with no remainder |
| 5 | 5.5 | Multiply a whole number by 10 |
| Multiply a whole number by 100 |
| Multiply a whole number by 1000 |
| Multiply a decimal by 10 |
| Multiply a decimal by 100 |
| Multiply a decimal by 1000 |
| Divide a whole number by 10 |
| Divide a whole number by 100 |
| Divide a whole number by 1000 |
| Divide a decimal by 10 |
| Divide a decimal by 100 |
| 5.7a | Multiply numbers up to 4-digits by a one-digit number using short multiplication |
| Multiply 2 digit by 2 digit numbers using the distributive law |
| Multiply 2 digit by 2 digit numbers using long multiplication |
| Multiply 3 digit numbers by 2 digit numbers using long multiplication |
| Multiply 4 digit numbers by 2 digit numbers using long multiplication |
| Use efficient methods to multiply mentally |
| Use known facts and place value to multiply a whole number by a decimal |
| Multiply a one-digit number by a decimal (1dp) using a formal written method |
| Multiply a one-digit number by a decimal (2dp) using a formal written method |
| 5.7b | Divide a four-digit number by a one-digit number using short division (divisor < thousands digit) with no remainder |
| Divide a four-digit number by a one-digit number using short division (thousands digit = multiple of divisor, divisor < hundreds digit) with no remainder |
| Divide a four-digit number by a one-digit number using short division (divisor > thousands digit) with no remainder |
| Divide a four-digit number by a one-digit number using short division (divisor < thousands digit) with a remainder |
| Divide a four-digit number by a one-digit number using short division (divisor > thousands digit) with a remainder |
| 6 | 6.3 | Find common multiples of two numbers |
| Find common factors of two numbers |
| Identify prime numbers |
| Multiply a four-digit number by a two-digit number using long multiplication |
| Divide a three-digit number by a two-digit number using a formal written method with no remainder |
| Divide a three-digit number by a two-digit number using a formal written method with a whole number remainder |
| Divide a three-digit number by a two-digit number using a formal written method with a remainder expressed as a fraction |
| Divide a three-digit number by a two-digit number using a formal written method with a remainder rounding to two decimal places |
| Divide a four-digit number by a two-digit number using a formal written method with no remainder |
| Divide a four-digit number by a two-digit number using a formal written method with a whole number remainder |
| Divide a four-digit number by a two-digit number using a formal written method with a remainder expressed as a fraction |
| Divide a four-digit number by a two-digit number using a formal written method with a remainder rounding to two decimal places |
| 6.8 | Carry out calculations involving a mixture of multiplication and division |
| Carry out calculations involving a mixture of multiplication and addition/subtraction |
| Carry out calculations involving a mixture of division and addition/subtraction |
| Carry out calculations involving all four operations, including brackets |
| Carry out calculations involving a mixture of multiplication and/or division and indices |
| 6.15 | Multiply and divide numbers up to 4 digits by a 2-digit number choosing efficient methods and interpreting the remainders |