**CJS Year 3 Maths overview**

Autumn 1

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| **Week 1** | **Week 2** | **Week 3** | **Week 4** | **Week 5** | **Week 6** | **Week 7** | **Week 8** |
| **Assessment**Make flashcards of important KS1 facts.Presentation in books.Counting.Number bonds to 10, 20 and 100. | **Place value*** Partition 3 digit numbers into HTO (counters, straw bundles, base 10, drawings of base 10, bar model).
* Partition 3 digit numbers in different ways (counters, straw bundles, base 10, drawings of base 10, bar model).
* Solve balancing equations with partitioning numbers in different ways.
* Position of HTO on a number line with benchmarks labelled.
* Position of HTO on a number line with only two benchmarks.
* Position of the same HTO on differently benchmarked number lines.

**Counting*** Adding / subtracting O, T, Hs without crossing boundaries.
* Adding / subtracting O, T, Hs crossing boundaries by using counters on a place value grid and exchanging.

**Comparing and ordering** * Saying which is bigger / smaller out of two HTO numbers, represented in different ways (concrete, pictorial and abstract).
* Using < and > to show the relative size of two HTO numbers.
* Saying which is bigger / smaller out of three+ HTO numbers, represented in different ways (concrete, pictorial and abstract).
 | **Addition and subtraction*** Add and subtract multiples of 100
* HTO +- O without crossing 10.
* HTO +- 0 crossing 10.
* HTO +- O, generating 4 addition and subtraction statements. Whole and part unknown questions. Missing number questions.
* HTO +- multiple of 10 without crossing 100.
* HTO +-multiple of 10 crossing 100.
* HTO +- multiple of 10, generating 4 addition and subtraction statements. Whole and part unknown questions. Missing number questions.
* HTO +- multiple of 100 without crossing 1000.
* HTO +- multiple of 100 crossing 1000.
* HTO +- multiple of 100, generating 4 addition and subtraction statements. Whole and part unknown questions. Missing number questions.
* HTO +- TO not crossing 10 or 100.
* HTO +- TO crossing 10 or 100.
* HTO +- TO, generating 4 addition and subtraction statements. Whole and part unknown questions. Missing number questions.
* HTO +- HTO not crossing 10, 100 or 1000.
* HTO +- HTO not crossing 10, 100 or 1000.
* HTO +- HTO, generating 4 addition and subtraction statements. Whole and part unknown questions. Missing number questions.
* HTO +– HTO using concrete materials, no exchange then exchange.
* HTO +– HTO using pictorial method, no exchange then exchange.
* HTO +– HTO using expanded column method, no exchange.
* HTO +– HTO using expanded column method, exchange in ones only.
* HTO +– HTO using expanded column method, exchange in tens only.
* HTO +– HTO using expanded column method, exchange in ones and tens.
* HTO +– HTO using contracted column method, no exchange.
* HTO +– HTO using contracted column method, exchange in ones only.
* HTO +– HTO using contracted column method, exchange in tens only.
* HTO +– HTO using contracted column method, exchange in ones and tens.
* Missing number problems (whole and part unknown) HTO +-HTO.
* Balancing equations (whole and part unknown) HTO +- HTO.
* Number problem solving.
* Sort worded problems based on whether the whole or a part is unknown.
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Autumn 2

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| **Week 1** | **Week 2** | **Week 3** | **Week 4** | **Week 5** | **Week 6** | **Week 7** |
| **4 times table*** Count forwards and backwards in 4s and 40s.
* Classify numbers based on whether they are multiples of 4 or not.
* Multiply numbers by 4 within times tables.
* Multiply TO by 4 using base 10 or place value counters with no exchange.
* Multiply TO by 4 using a grid method with no exchange.
* Multiply TO by 4 using base 10 or place value counters with exchange.
* Multiply TO by 4 using a grid method with exchange.
* Commutative law for 4 times table.
* Bar modelling and number line representation for multiplying by 4 (whole, number of parts, size of each parts).
* Generate 4 multiplication and division statements from a bar model.
* Dividing by 4 by counting in 4s with no remainders.
* Dividing by 4 by splitting the whole into 4 groups with no remainders.
* Dividing by 4 by counting in 4s with remainders.
* Dividing by 4 by splitting the whole into 4 groups with remainders.
* Divide TO by 4 by chunking.
* Sort missing number calculations based on whether the whole, size of each part or number of parts is unknown.
* Solve missing number problems.
* Solve other problems related to multiples of 4.
* Sort worded problems based on whether the whole, number of parts or size of each part is unknown, then solve.
 | **8 times table*** Count forwards and backwards in 8s and 80s.
* Classify numbers based on whether they are multiples of 8 or not.
* Multiply numbers by 8 within times tables.
* Multiply TO by 8 using base 10 or place value counters with no exchange.
* Multiply TO by 8 using a grid method with no exchange.
* Multiply TO by 8 using base 10 or place value counters with exchange.
* Multiply TO by 8 using a grid method with exchange.
* Commutative law for 8 times table.
* Bar modelling and number line representation for multiplying by 8 (whole, number of parts, size of each parts).
* Generate 4 multiplication and division statements from a bar model.
* Dividing by 8 by counting in 8s with no remainders.
* Dividing by 8 by splitting the whole into 8 groups with no remainders.
* Dividing by 8 by counting in 8s with remainders.
* Dividing by 8 by splitting the whole into 8 groups with remainders.
* Divide TO by 8 by chunking.
* Sort missing number calculations based on whether the whole, size of each part or number of parts is unknown.
* Solve missing number problems.
* Solve other problems related to multiples of 8.
* Sort worded problems based on whether the whole, number of parts or size of each part is unknown, then solve.
 | **50 times table*** Count forwards and backwards in 50s.
* Classify numbers based on whether they are multiples of 50 or not.
* Multiply numbers by 50.
* Commutative law for 50 times table.
* Bar modelling and number line representation for multiplying by 50 (whole, number of parts, size of each parts).
* Generate 4 multiplication and division statements from a bar model.
* Dividing by 50 by counting in 50s with no remainders.
* Dividing by 50 by counting in 50s with remainders.
* Sort missing number calculations based on whether the whole, size of each part or number of parts is unknown.
* Solve missing number problems.
* Solve other problems related to multiples of 50.
* Sort worded problems based on whether the whole, number of parts or size of each part is unknown, then solve.
 | **3 and 6 times tables*** Count forwards and backwards in 3s and 30s, 6s and 60s.
* Classify numbers based on whether they are multiples of 3 and 6 or not.
* Multiply numbers by 3 and 6 within times tables.
* Multiply TO by 3 and 6 using base 10 or place value counters with no exchange.
* Multiply TO by 3 and 6 using a grid method with no exchange.
* Multiply TO by 3 and 6 using base 10 or place value counters with exchange.
* Multiply TO by 3 and 6 using a grid method with exchange.
* Commutative law for 3 and 6 times table.
* Bar modelling and number line representation for multiplying by 3 and 6 (whole, number of parts, size of each parts).
* Generate 4 multiplication and division statements from a bar model.
* Dividing by 3 and 6 by counting in 3s and 6s with no remainders.
* Dividing by 3 and 6 by splitting the whole into 3 and 6 groups with no remainders.
* Dividing by 3 and 6 by counting in 4s and 6s with remainders.
* Dividing by 3 and 6 by splitting the whole into 3 and 6 groups with remainders.
* Divide TO by 3 and 6 by chunking.
* Sort missing number calculations based on whether the whole, size of each part or number of parts is unknown.
* Solve missing number problems.
* Solve other problems related to multiples of 3 and 6.
* Sort worded problems based on whether the whole, number of parts or size of each part is unknown, then solve.
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Spring 1

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| **Week 1** | **Week 2** | **Week 3** | **Week 4** | **Week 5** | **Week 6** |
| **Money*** Coins and notes in the money system.
* Using different coins to make given amounts.
* Using a place value grid to show how to write money using a decimal point (£ / 10ps / 1ps).
* Convert pounds to pence and pence to pounds.
* Partition amounts of money into £, 10ps and 1ps.
* Partition amounts of money in different ways.
* Position of amounts of money on a number line with benchmarks labelled.
* Position of amounts of money on a number line with only two benchmarks.
* Position of the same amount of money on differently benchmarked number lines.
 | **Addition and subtraction of money*** Add and subtract multiples of 100p / £1
* HTO +- O (in pence) and O.th (in pounds) without crossing 10p.
* HTO +- O (in pence) and O.th (in pounds) crossing 10p.
* HTO +- O (in pence) and O.th (in pounds), generating 4 addition and subtraction statements. Whole and part unknown questions. Missing number questions.
* HTO +- multiple of 10p (in pence) and O.th (in pounds) without crossing 100p / £1.
* HTO +-multiple of 10p (in pence) and O.th (in pounds) crossing 100 / £1.
* HTO +- multiple of 10p (in pence) and O.th (in pounds), generating 4 addition and subtraction statements. Whole and part unknown questions. Missing number questions.
* HTO +- multiple of 100p / £1 (in pence) and O.th (in pounds) without crossing 1000p / £10.
* HTO +- multiple of 100p / £1 (in pence) and O.th (in pounds) crossing 1000 / £10.
* HTO +- multiple of 100p / £1 (in pence) and O.th (in pounds), generating 4 addition and subtraction statements. Whole and part unknown questions. Missing number questions.
* HTO +- TO (in pence) and O.th (in pounds) not crossing 10p or 100p / £1.
* HTO +- TO (in pence) and O.th (in pounds) crossing 10p or 100p / £1.
* HTO +- TO (in pence) and O.th (in pounds), generating 4 addition and subtraction statements. Whole and part unknown questions. Missing number questions.
* HTO +- HTO (in pence) and O.th (in pounds) not crossing 10p, 100p / £1 or 1000p / £10.
* HTO +- HTO (in pence) and O.th (in pounds) not crossing 10p, 100p / £1 or 1000p / £10.
* HTO +- HTO (in pence) and O.th (in pounds), generating 4 addition and subtraction statements. Whole and part unknown questions. Missing number questions.
* HTO +– HTO (in pence) and O.th (in pounds )using concrete materials, no exchange then exchange.
* HTO +– HTO (in pence) and O.th (in pounds) using pictorial method, no exchange then exchange.
* HTO +– HTO (in pence) and O.th (in pounds) using expanded column method, no exchange.
* HTO +– HTO (in pence) and O.th (in pounds) using expanded column method, exchange in ones only.
* HTO +– HTO (in pence) and O.th (in pounds) using expanded column method, exchange in tens only.
* HTO +– HTO (in pence) and O.th (in pounds) using expanded column method, exchange in ones and tens.
* HTO +– HTO (in pence) and O.th (in pounds) using contracted column method, no exchange.
* HTO +– HTO (in pence) and O.th (in pounds) using contracted column method, exchange in ones only.
* HTO +– HTO (in pence) and O.th (in pounds) using contracted column method, exchange in tens only.
* HTO +– HTO (in pence) and O.th (in pounds) using contracted column method, exchange in ones and tens.
* Missing number problems (whole and part unknown) HTO +-HTO (in pence) and O.th (in pounds).
* Balancing equations (whole and part unknown) HTO +- HTO (in pence) and O.th (in pounds).
* Number problem solving
* Sort worded problems based on what is unknown.
 | **Properties of shape*** Name the 2D shapes and label their properties (number of sides, vertical line symmetry).
* Draw 2D shapes accurately using squared and isometric paper.
* Sort shapes based on their properties (number of sides, regularity, vertical line symmetry).
* Identify parallel and perpendicular lines in 2D shapes and label them.
* Sort shapes based on parallel and perpendicular lines.
* Name the 3D shapes and make them using modelling material.
* Match 2D drawings to 3D shapes.
* Label the properties of 3D shapes on drawings (number of edges, number of vertices, number of faces).
* Sort 3D shapes based on their properties.
* Identify horizontal and vertical lines in shapes.
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Spring 2

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| --- | --- | --- | --- | --- | --- |
| **Week 1** | **Week 2** | **Week 3** | **Week 4** | **Week 5** | **Week 6** |
| **4 times table*** Count forwards and backwards in 4s and 40s.
* Classify numbers based on whether they are multiples of 4 or not.
* Multiply numbers by 4 within times tables.
* Multiply TO by 4 using base 10 or place value counters with no exchange.
* Multiply TO by 4 using a grid method with no exchange.
* Multiply TO by 4 using base 10 or place value counters with exchange.
* Multiply TO by 4 using a grid method with exchange.
* Commutative law for 4 times table.
* Bar modelling and number line representation for multiplying by 4 (whole, number of parts, size of each parts).
* Generate 4 multiplication and division statements from a bar model.
* Dividing by 4 by counting in 4s with no remainders.
* Dividing by 4 by splitting the whole into 4 groups with no remainders.
* Dividing by 4 by counting in 4s with remainders.
* Dividing by 4 by splitting the whole into 4 groups with remainders.
* Divide TO by 4 by chunking.
* Sort missing number calculations based on whether the whole, size of each part or number of parts is unknown.
* Solve missing number problems.
* Solve other problems related to multiples of 4.
* Sort worded problems based on whether the whole, number of parts or size of each part is unknown, then solve.
 | **8 times table*** Count forwards and backwards in 8s and 80s.
* Classify numbers based on whether they are multiples of 8 or not.
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* Multiply TO by 8 using base 10 or place value counters with exchange.
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* Commutative law for 8 times table.
* Bar modelling and number line representation for multiplying by 8 (whole, number of parts, size of each parts).
* Generate 4 multiplication and division statements from a bar model.
* Dividing by 8 by counting in 8s with no remainders.
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* Multiply TO by 3 and 6 using a grid method with no exchange.
* Multiply TO by 3 and 6 using base 10 or place value counters with exchange.
* Multiply TO by 3 and 6 using a grid method with exchange.
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* Bar modelling and number line representation for multiplying by 3 and 6 (whole, number of parts, size of each parts).
* Generate 4 multiplication and division statements from a bar model.
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* Dividing by 3 and 6 by splitting the whole into 3 and 6 groups with no remainders.
* Dividing by 3 and 6 by counting in 4s and 6s with remainders.
* Dividing by 3 and 6 by splitting the whole into 3 and 6 groups with remainders.
* Divide TO by 3 and 6 by chunking.
* Sort missing number calculations based on whether the whole, size of each part or number of parts is unknown.
* Solve missing number problems.
* Solve other problems related to multiples of 3 and 6.
* Sort worded problems based on whether the whole, number of parts or size of each part is unknown, then solve.
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Summer 1

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| --- | --- | --- | --- | --- |
| **Week 1** | **Week 2** | **Week 3** | **Week 4** | **Week 5** |
| **Money*** Coins and notes in the money system.
* Using different coins to make given amounts.
* Using a place value grid to show how to write money using a decimal point (£ / 10ps / 1ps).
* Convert pounds to pence and pence to pounds.
* Partition amounts of money into £, 10ps and 1ps.
* Partition amounts of money in different ways.
* Position of amounts of money on a number line with benchmarks labelled.
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* HTO +- multiple of 10p (in pence) and O.th (in pounds) without crossing 100p / £1.
* HTO +-multiple of 10p (in pence) and O.th (in pounds) crossing 100 / £1.
* HTO +- multiple of 10p(in pence) and O.th (in pounds), generating 4 addition and subtraction statements. Whole and part unknown questions. Missing number questions.
* HTO +- multiple of 100p / £1 (in pence) and O.th (in pounds) without crossing 1000p / £10.
* HTO +- multiple of 100p / £1 (in pence) and O.th (in pounds) crossing 1000 / £10.
* HTO +- multiple of 100p / £1 (in pence) and O.th (in pounds), generating 4 addition and subtraction statements. Whole and part unknown questions. Missing number questions.
* HTO +- TO (in pence) and O.th (in pounds) not crossing 10p or 100p / £1.
* HTO +- TO (in pence) and O.th (in pounds) crossing 10p or 100p / £1.
* HTO +- TO (in pence) and O.th (in pounds), generating 4 addition and subtraction statements. Whole and part unknown questions. Missing number questions.
* HTO +- HTO (in pence) and O.th (in pounds) not crossing 10p, 100p / £1 or 1000p / £10.
* HTO +- HTO (in pence) and O.th (in pounds) not crossing 10p, 100p / £1 or 1000p / £10.
* HTO +- HTO (in pence) and O.th (in pounds), generating 4 addition and subtraction statements. Whole and part unknown questions. Missing number questions.
* HTO +– HTO (in pence) and O.th (in pounds )using concrete materials, no exchange then exchange.
* HTO +– HTO (in pence) and O.th (in pounds) using pictorial method, no exchange then exchange.
* HTO +– HTO (in pence) and O.th (in pounds) using expanded column method, no exchange.
* HTO +– HTO (in pence) and O.th (in pounds) using expanded column method, exchange in ones only.
* HTO +– HTO (in pence) and O.th (in pounds) using expanded column method, exchange in tens only.
* HTO +– HTO (in pence) and O.th (in pounds) using expanded column method, exchange in ones and tens.
* HTO +– HTO (in pence) and O.th (in pounds) using contracted column method, no exchange.
* HTO +– HTO (in pence) and O.th (in pounds) using contracted column method, exchange in ones only.
* HTO +– HTO (in pence) and O.th (in pounds) using contracted column method, exchange in tens only.
* HTO +– HTO (in pence) and O.th (in pounds) using contracted column method, exchange in ones and tens.
* Missing number problems (whole and part unknown) HTO +-HTO (in pence) and O.th (in pounds).
* Balancing equations (whole and part unknown) HTO +- HTO (in pence) and O.th (in pounds).
* Number problem solving
* Sort worded problems based on what is unknown.
 | **Properties of shape*** Name the 2D shapes and label their properties (number of sides, vertical line symmetry).
* Draw 2D shapes accurately using squared and isometric paper.
* Sort shapes based on their properties (number of sides, regularity, vertical line symmetry).
* Identify parallel and perpendicular lines in 2D shapes and label them.
* Sort shapes based on parallel and perpendicular lines.
* Name the 3D shapes and make them using modelling material.
* Match 2D drawings to 3D shapes.
* Label the properties of 3D shapes on drawings (number of edges, number of vertices, number of faces).
* Sort 3D shapes based on their properties.
* Identify horizontal and vertical lines in shapes.
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Summer 2

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| **Week 1** | **Week 2** | **Week 3** | **Week 4** | **Week 5** | **Week 6** | **Week 7** |
| **Fractions*** Fractions as equal parts of a whole using concrete objects – saying how many parts out of the total number of parts (unit and non unit fractions).
* Fractions as equal parts of a whole using pictorial representations – saying how many parts out of the total number of parts (unit and non unit fractions).
* Fractions as equal parts of a whole using bar models – saying how many parts out of the total number of parts (unit and non unit fractions).
* Splitting shapes including bar models into equal parts (unit and non unit fractions).
* Reading fractions from fully labelled number lines.
* Reading fractions from partly labelled number lines.
* Marking fractions on a number line from a pictorial representation.
* Find fractions of equivalent value by folding paper and cutting objects.
* Find fractions of equivalent value by drawing bar models and halving parts.
* Find fractions of equivalent value by reading a fraction wall.
* Show which unit fraction is bigger or by shading a picture or drawing own bar model.
* Show which fraction (with the same denominator) is bigger or smaller by shading or drawing own bar model.
* Order three or more unit fractions by shading pictures or drawing own bar model.
* Order 3 or more fractions with the same denominator by shading pictures of drawing own bar model.
* Add and subtract fractions with the same denominator within and up to one whole using Numicon.
* Add and subtract fractions with the same denominator within and up to one whole using a bar model and number line.
* Generate 4 addition and subtraction statements using a bar model.
* Generate 4 addition and subtraction statements using a bar model where the whole or a part is unknown.
* Sort missing number questions based on whether the whole or a part is unknown, then solve.
* Solve balancing equations where both sides are whole unknown.
* Solve balancing equations where both sides are part unknown.
* Solve balancing equations where one side is part unknown and one side is whole unknown.
* Calculate a unit fraction of a number by dividing into groups of the denominator – counters on a bar model.
* Calculate a unit fraction of a number by dividing into groups of the denominator – jottings on a bar model.
* Calculate the whole when given the unit fraction.
* Calculate a non unit fraction of a number by dividing into groups of the denominator and multiplying by the numerator – counters on a bar model.
* Calculate a non unit fraction of a number by dividing into groups of the denominator and multiplying by the numerator – jottings on a bar model.
* Calculate the whole when given the non unit fraction.
* Solve balancing equations where both sides are unit fractions (whole and part unknown).
* Solve balancing equations where one side is a unit fraction and one side is a non unit fraction (whole and part unknown).
* Solve balancing equations where both sides are non unit fractions (whole and part unknown).
 | **9 times table*** Count forwards and backwards in 9s and 90s.
* Classify numbers based on whether they are multiples of 9 or not.
* Multiply numbers by 9 within times tables.
* Multiply TO by 9 using base 10 or place value counters with no exchange.
* Multiply TO by 9 using a grid method with no exchange.
* Multiply TO by 9 using base 10 or place value counters with exchange.
* Multiply TO by 9 using a grid method with exchange.
* Commutative law for 9 times table.
* Bar modelling and number line representation for multiplying by 9 (whole, number of parts, size of each parts).
* Generate 4 multiplication and division statements from a bar model.
* Dividing by 9 by counting in 9s with no remainders.
* Dividing by 9 by splitting the whole into 9 groups with no remainders.
* Dividing by 9 by counting in 8s with remainders.
* Dividing by 9 by splitting the whole into 8 groups with remainders.
* Divide TO by 9 by chunking.
* Sort missing number calculations based on whether the whole, size of each part or number of parts is unknown.
* Solve missing number problems.
* Solve other problems related to multiples of 9.
* Sort worded problems based on whether the whole, number of parts or size of each part is unknown, then solve.
 | **50 times table*** Count forwards and backwards in 50s.
* Classify numbers based on whether they are multiples of 50 or not.
* Multiply numbers by 50.
* Commutative law for 50 times table.
* Bar modelling and number line representation for multiplying by 50 (whole, number of parts, size of each parts).
* Generate 4 multiplication and division statements from a bar model.
* Dividing by 50 by counting in 50s with no remainders.
* Dividing by 50 by counting in 50s with remainders.
* Sort missing number calculations based on whether the whole, size of each part or number of parts is unknown.
* Solve missing number problems.
* Solve other problems related to multiples of 50.
* Sort worded problems based on whether the whole, number of parts or size of each part is unknown, then solve.
 |