## Number

## Place Value

- E2.1 Count reliably up to 100 items
- E2.2 Read, write, order and compare numbers up to 200
- E2.3 Recognise and sequence odd and even numbers up to 100
- E2.4 Recognise and interpret the symbols + , $-, x, \div$ and $=$ appropriately
- Represent numbers to 1,000
- Partition numbers to 1,000
- Number line to 1,000
- Represent numbers to 10,000
- Partition numbers to 10,000
- Flexible partitioning of numbers to 10,000
- Find 1, 10, 100, 1,000 more or less
- Number line to 10,000
- Estimate on a number line to 10,000
- Compare numbers to 10,000
- Order numbers to 10,000
- Roman numerals
- Round to the nearest 10
- Round to the nearest 100
- Round to the nearest 1,000
- Round to the nearest 10,100 or 1,000
- E2.9 Approximate by rounding to the nearest 10 , and use this rounded answer to check results


## Addition \& Subtraction

- E2.5 Add and subtract two-digit numbers
- Add and subtract $1 \mathrm{~s}, 10 \mathrm{~s}, 100 \mathrm{~s}$ and $1,000 \mathrm{~s}$
- Add up to two 4-digit numbers - no exchange
- Add two 4-digit numbers - one exchange
- Add two 4-digit numbers - more than one exchange


## Term 2: Jan-April Content

## Multiplication \& Division

- Factor pairs
- Use factor pairs
- Multiply by 10
- Multiply by 100
- Divide by 10
- Divide by 100
- Related facts - multiplication and division
- Informal written methods for multiplication
- Multiply a 2-digit number by a 1digit number
- Multiply a 3-digit number by a 1 digit number
- Divide a 2 -digit number by a 1 -digit number (1)
- Divide a 2-digit number by a 1-digit number (2)
- Divide a 3-digit number by a 1-digit number
- Correspondence problems
- Efficient multiplication


## Measurement

## Length \& Perimeter

- Measure in kilometres and metres
- Equivalent lengths (kilometres and metres)
- Perimeter on a grid
- Perimeter of a rectangle
- Perimeter of rectilinear shapes
- Find missing lengths in rectilinear shapes
- Calculate the perimeter of rectilinear shapes
- Perimeter of regular polygons
- Perimeter of polygons
- E2.14 Use metric measures of length, including millimetres, centimetres, metres and kilometres


## Term 3: April - July Content

## Number

## Decimals

- Make a whole with tenths
- Make a whole with hundredths
- Partition decimals
- Compare decimals
- Order decimals
- Round to the nearest whole number
- Halves and quarters as decimals


## Measurement

## Converting Units

- E2.7 Know the number of hours in a day and weeks in a year; be able to name and sequence
- E2.15 Use measures of weight, including grams and kilograms
- E2.16 Use measures of capacity, including millilitres and litres
- E2.17 Read and compare positive temperatures


## Money

- Write money using decimals
- Convert between pounds and pence
- Compare amounts of money
- Estimate with money
- Calculate with money
- Solve problems with money
- E2.12 Calculate money with pence up to one pound and in whole pounds of multiple items and write with the correct symbols (£ or p)
Time
- Years, months, weeks and days
- Hours, minutes and seconds
- Convert between analogue and digital times
- Convert to the 24 hour clock
- Convert from the 24 hour clock
- E2.13 Read and record time in common date formats and read time displayed on analogue clocks in hours, half hours and quarter hours, and understand hours from a 24hour digital clock


## Geometry


nearest 10 or 100 and use this rounded answer to check results

- E3.6 Recognise and continue linear sequences of numbers up to 100
- E3.7 Read, write and understand thirds, quarters, fifths and tenths, including equivalent forms


## Measurement

## Perimeter \& Area

- Perimeter of rectangles
- Perimeter of rectilinear shapes
- Perimeter of polygons
- Area of rectangles
- Area of compound shapes
- Estimate area
- Translation
- Translation with coordinates
- Lines of symmetry
- Reflection in horizontal and vertical lines
- E3.20 Use appropriate positional vocabulary to describe position and direction, including eight compass points and full/half/quarter turns
- E3.19 Sort 2-D and 3-D shapes using properties, including lines of symmetry, length, right angles, angles, including in rectangles and triangles
units to the nearest labelled or unlabelled division
- Convert units of length
- E3.17 Compare measures of capacity, including millilitres and litres
- Convert between metric and imperial units
- E3.18 Use a suitable instrument to measure mass and length
- E3.15 Compare metric measures of length, including millimetres, centimetres, metres and kilometres
- Convert units of time
- E3.12 Read, measure and record time using am and pm
- E3.13 Read time from analogue and 24hour digital clocks in hours and minutes
- Calculate with timetables
- E3.10 Calculate with money using decimal notation and express money correctly in writing in pounds and pence
- E3.11 Round amounts of money to the nearest £1 or 10p


## Volume

- Cubic centimetres
- Compare volume
- Estimate volume
- Estimate capacity

Freckle based inquiry

Year 9 are currently working on completing the KSI curriculum and working towards passing their Pearson Edexcel Functional Skills Entry Level 1 exam.

## Number

- El.1 Read, write, order and compare numbers up to 20
- El.2 Use whole numbers to count up to 20 items, including zero


## Place Value

- Numbers to 20
- Count objects to 100 by making 10 s
- Recognise tens and ones
- Use a place value chart
- Partition numbers to 100
- Write numbers to 100 in words
- Write numbers to 100 in expanded form
- 10 s on the number line to 100
- 10 s and $1 s$ on the number line to 100
- Estimate numbers on a number line
- Compare objects
- Compare numbers
- Order objects and numbers
- Count in $2 \mathrm{~s}, 5 \mathrm{~s}$ and 10 s
- Count in 3 s


## Addition \& Subtraction

- El.3 Add numbers which total up to 20, and subtract numbers from numbers up to 20
- E1.4 Recognise and interpret the symbols + , - and $=$ appropriately
- Bonds to 10
- Fact families - addition and subtraction bonds within 20
- Related facts
- Bonds to 100 (tens)
- Add and subtract is
- Add by making 10
- Add three 1-digit numbers

Term 2: Jan-April Content

## Measurement

## Money

- E1.5 Recognise coins and notes and write them in numbers with the correct symbols (£ \& p), where these involve numbers up to 20
- Count money - pence
- Count money - pounds (notes and coins)
- Count money - pounds and pence
- Choose notes and coins
- Make the same amount
- Compare amounts of money
- Calculate with money
- Make a pound
- Find change
- Two-step problems


## Number

## Multiplication \& Division

- Recognise equal groups
- Make equal groups
- Add equal groups
- Introduce the multiplication symbol
- Multiplication sentences
- Use arrays
- Make equal groups - grouping
- Make equal groups - sharing
- The 2 times-table
- Divide by 2
- Doubling and halving
- Odd and even numbers
- The 10 times-table
- Divide by 10
- The 5 times-table
- Divide by 5
- The 5 and 10 times-tables


## Measurement

## Length \& Height

- El.8 Describe and make comparisons in words between measures of items including

Term 3: April - July Content

## Number

## Fractions

- Introduction to parts and whole
- Equal and unequal parts
- Recognise a half
- Find a half
- Recognise a quarter
- Find a quarter
- Recognise a third
- Find a third
- Find the whole
- Unit fractions
- Non-unit fractions
- Recognise the equivalence of a half and two quarters
- Recognise three-quarters
- Find three-quarters
- Count in fractions up to a whole


## Measurement

## Time

- E1.6 Read 12-hour digital and analogue clocks in hours
- El.7 Know the number of days in a week, months and seasons in a year; be able to name and sequence
- O'clock and half past
- Quarter past and quarter to
- Tell time past the hour
- Tell time to the hour
- Tell the time to 5 minutes
- Minutes in an hour
- Hours in a day


## Statistics

- E1.11 Read numerical information from lists
- El.12 Sort and classify objects using a single criterion

Desired end o year outcomes
Students

- Add to the next 10
- Add across a 10
- Subtract across 10
- Subtract from a 10
- Subtract a 1-digit number from a 2-digit number (across a 10)
- 10 more, 10 less
- Add and subtract 10 s
- Add two 2-digit numbers (not across a 10)
- Add two 2-digit numbers (across a 10)
- Subtract two 2-digit numbers (not across a 10)
- Subtract two 2-digit numbers (across a 10)
- Mixed addition and subtraction
- Compare number sentences
- Missing number problems


## Measurement

## Shape

- E1.9 Identify and recognise common 2$D$ and $3-D$ shapes, including circle, cube, rectangle (including square) and triangle
- Recognise 2-D and 3-D shapes
- Count sides on 2-D shapes
- Count vertices on 2-D shapes
- Draw 2-D shapes
- Lines of symmetry on shapes
- Use lines of symmetry to complete shapes
- Sort 2-D shapes
- Count faces on 3-D shapes
- Count edges on 3-D shapes
- Count vertices on 3-D shapes
- Sort 3-D shapes
- Make patterns with 2-D and 3-D shapes

Freckle: Inquiry Based Activity capacity

- Measure in centimetres
- Measure in metres
- Compare lengths and heights
- Order lengths and heights
- Four operations with lengths and heights


## Mass, Capacity \& Temperature

- Compare mass
- Measure in grams
- Measure in kilograms
- Four operations with mass
- Compare volume and capacity
- Measure in millilitres
- Measure in litres
- Four operations with volume and capacity
- Temperature
- E1.13 Read and draw simple charts and diagrams, including a tally chart, block diagram/graph
- Make tally charts
- Tables
- Block diagrams
- Draw pictograms
- Interpret pictograms
- Draw pictograms
- Interpret pictograms


## Geometry

## Position \& Direction

- El.10 Use everyday positional vocabulary to describe position and direction, including left, right, in front, behind, under and above
- Language of position
- Describe movement
- Describe turns
- Describe movement and turns
- Shape patterns with turns


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## Term 2: Jan-April Content

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- Multiply by 100
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- Perimeter of a rectangle
- Perimeter of rectilinear shapes
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- Calculate the perimeter of rectilinear shapes
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- Perimeter of polygons
- E2.14 Use metric measures of length, including millimetres, centimetres, metres and kilometres


## Term 3: April - July Content

## Number

## Decimals

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- Make a whole with hundredths
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- Order decimals
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## Geometry

- Subtract two 4-digit numbers - no exchange
- Subtract two 4-digit numbers - one exchange
- Subtract two 4-digit numbers - more than one exchange
- Efficient subtraction
- Estimate answers
- Checking strategies


## Measurement

## Perimeter \& Area

- What is area?
- Count squares
- Make shapes
- Compare areas


## Number

## Multiplication \& Division

- E2.6 Multiply whole numbers in the range 0 $\times 0$ to $12 \times 12$ (times tables)
- Multiples of 3
- Multiply and divide by 6
- 6 times-table and division facts
- Multiply and divide by 9
- 9 times-table and division facts
- The 3, 6 and 9 times-tables
- Multiply and divide by 7
- 7 times-table and division facts
- 11 times-table and division facts
- 12 times-table and division facts
- Multiply by 1 and 0
- Divide a number by 1 and itself
- Multiply three numbers
- E2.8 Divide two-digit whole numbers by single-digit whole numbers and express remainders


## Number

## Fractions

- Understand the whole
- Count beyond 1
- Partition a mixed number
- Number lines with mixed numbers
- Compare and order mixed numbers
- Understand improper fractions
- Convert mixed numbers to improper fractions
- Convert improper fractions to mixed numbers
- Equivalent fractions on a number line
- Equivalent fraction families
- Add two or more fractions
- Add fractions and mixed numbers
- Subtract two fractions
- Subtract from whole amounts
- Subtract from mixed numbers
- E2.10 Recognise simple fractions (halves, quarters and tenths) of whole numbers and shapes


## Decimals

- Tenths as fractions
- Tenths as decimals
- Tenths on a place value chart
- Tenths on a number line
- Divide a 1 -digit number by 10
- Divide a 2-digit number by 10
- Hundredths as fractions
- Hundredths as decimals
- Hundredths on a place value chart
- Divide a 1 - or 2-digit number by 100
- E2.11 Read, write and use decimals to one decimal place


## Shape

- Understand angles as turns
- Identify angles
- Compare and order angles
- Triangles
- Quadrilaterals
- Polygons
- Lines of symmetry
- Complete a symmetric figure
- E2.19 Recognise and name 2-D and 3-D shapes, including pentagons, hexagons, cylinders, cuboids, pyramids and spheres
- E2.20 Describe the properties of common 2-D and 3-D shapes, including numbers of sides, corners, edges, faces, angles and base


## Statistics

- Interpret charts
- Comparison, sum and difference
- Interpret line graphs
- Draw line graphs
- E2.18 Read and use simple scales to the nearest labelled division
- E2.22 Extract information from lists, tables, diagrams and bar charts
- E2.23 Make numerical comparisons from bar charts
- E2.24 Sort and classify objects using two criteria
- E2.25 Take information from one format and represent the information in another format, including use of bar charts


## Position \& Direction

- Describe position using coordinates
- Plot coordinates
- Draw 2-D shapes on a grid
- Translate on a grid
- Describe translation on a grid
- E2.21 Use appropriate positional vocabulary to describe position and direction, including between, inside, outside, middle, below, on top, forwards and backwards
Term 1: Sept -Dec Content
Year 9 are currently working on
completing the KS3 curriculum
and working towards passing
their Pearson Edexcel Functional
Skills Entry Level 3 exam and
preparing for their GCSE.


## Addition and Subtraction

Adding and subtracting, up
to 3 digits, with borrowing
and carrying.

## Number topics

Factors, ratio, percentage of
a number.
Decimals. Factors.
HCM/LCM
Prime numbers. Averages.

## Multiplication and Division

Multiplying and dividing up to
3 digit numbers by one digit.
With remainders.
Times table practise. 2 digit
times 2 digit multiplication.

## Fractions

Basic fractions followed by equivalent fractions. Adding and subtracting fractions with the same denominator.
Fraction of a number.
4 rules for fractions

Term 2: Jan-April Content

## Number and Place Value

Using place value to compare numbers and solve problems.
Negative numbers.

## Properties of Shape

-Recognise, name, sort and describe properties of common 2D and 3D shapes and draw common 2D shapes. Symmetry, linear and rotational.

## Fractions

Revise previous work and extend to adding and subtracting fractions with different denominators.
Multiply and divide fractions. Mixed numbers and improper fractions.

## Measures

Use varied vocabulary
(long/short/heavy
light/full/empty/quick/slow/early/late) Measure and record capacity, length, weight and time

## Algebra

Collecting terms
Multiplying terms
Expanding a bracket.
Solving linear equations.
Balance method.

## Functional maths

Term 3: April - July Content

## Number and Place Value

Using place value to compare
numbers and solve problems.

## Addition and Subtraction

Adding and subtracting, up to 3 digits, with borrowing and carrying.

## Multiplication and Division

Multiplying and dividing up to 3 digit
numbers by one digit. With remainders.
Times table practise.

## Measures

Comparison of metric units and Imperial.
Use varied vocabulary
(long/short/heavy
light/full/empty/quick/slow/early/late) Measure and record capacity,
length, weight and time.
Using correct units.

## Algebra

Collecting terms
Multiplying terms
Expanding a bracket.
Solving linear equations.
Balance method.

## Functional maths

Preparation for functional skills
assessment

## Desired end of year

 outcomesStudents fluent in using 4 rules of arithmetic.

Recall of basic number skills eg.
Fraction of a number.
Percentage of a number.
Dividing in a ratio.
Fraction skills up to and including adding and subtracting fractions with different denominators.

Competent algebra skills.

Awareness of conversion of metric and Imperial units.

Knowledge of properties of basic shapes.

Understanding of basic statistics and averages.

Improved times table recall.

| Mixed numbers to improper <br> fractions. | Preparation for functional skills <br> assessment | Problem solving skills <br> through starters. |
| :--- | :--- | :--- | :--- |
| Measures |  |  |
| Measuring and drawing |  |  |
| angles. |  |  |
| Properties of 2D shapes. |  |  |
| Converting metric units |  |  |
| Statistics |  |  |
| Bar graphs, drawing and |  |  |
| interpreting. |  |  |
| Averages. |  |  |
| Pie charts. |  |  |
| Pictogram. |  |  |
| Functional maths |  |  |
| Preparation for functional |  |  |
| skills assessment |  |  |

