## Year 7 are currently working on completing the

 KS2 curriculum and working towards passing their Pearson Edexcel Functional Skills Entry Level 2 exam.
## 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 1s,10s,100s and 1,000s
- 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 Conten

## 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 24 hour digital clock
- 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


## Geometry

## 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

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## Number

## Place value - (White Rose)

- Numbers to 1,000,000
- Numbers to 10,000,000
- Read and write numbers to 10,000,000
- Powers of 10
- Number line to $10,000,000$
- Compare and order any integers
- Round any integer
- Negative numbers


## Addition, Subtraction, Multiplication \&

## Division (White Rose)

- Add and subtract integers
- Common factors
- Common multiples
- Rules of divisibility
- Primes to 100
- Square and cube numbers
- Multiply up to a 4-digit number by a 2-digit number
- Solve problems with multiplication
- Short division
- Division using factors
- Introduction to long division
- Long division with remainders
- Solve problems with division
- Solve multi-step problems
- Order of operations
- Mental calculations and estimation
- Reason from known facts


## Term 2: Jan-April Content

## Statistics

- Line graphs
- Dual bar charts
- Read and interpret pie charts
- Pie charts with percentages
- Draw pie charts
- The mean
- E3.21 Extract information from lists, tables diagrams and charts and create frequency tables
- E3.22 Interpret information, to make comparisons and record changes, from different formats, including bar charts and simple line graphs
- E3.23 Organise and represent information in appropriate ways, including tables, diagrams, simple line graphs and bar charts


## Ratio

- Add or multiply?
- Use ratio language
- Introduction to the ratio symbol
- Ratio and fractions
- Scale drawing
- Use scale factors
- Similar shapes
- Ratio problems
- Proportion problems
- Recipes


## Algebra

- 1-step function machines
- 2-step function machines
- Form expressions
- Substitution
- Formulae
- Form equations


## Term 3: April - July Content

## Number

## Decimals

- Use known facts to add and subtract decimals within 1
- Complements to 1
- Add and subtract decimals across 1
- Add/subtract decimals with the same number of decimal places
- Add/subtract decimals with different numbers of decimal places
- Efficient strategies for adding and subtracting decimals
- Decimal sequences
- E3.9 Recognise and continue sequences that involve decimals
- E3.8 Read, write and use decimals up to two decimal places
- Multiply/divide by 10, 100 and 1,000
- Multiply and divide decimals - missing value


## Measurement

## Converting Units

- Kilograms and kilometres
- E3.16 Compare measures of weight, including grams and kilograms
- Millimetres and millilitres
- E3.14 Use and compare measures of length, capacity, weight and temperature using metric or imperial 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


## Fractions A

- Equivalent fractions and simplifying
- Equivalent fractions on a number line
- Compare and order (denominator)
- Compare and order (numerator)
- Add and subtract simple fractions
- Add and subtract any two fractions
- Add mixed numbers
- Subtract mixed numbers
- Multi-step problems


## Fractions B

- Multiply fractions by integers
- Multiply fractions by fractions
- Divide a fraction by an integer
- Divide any fraction by an integer
- Mixed questions with fractions
- Fraction of an amount
- Fraction of an amount - find the whole
- E3.1 Count, read, write, order and compare numbers up to 1000
- E3.2 Add and subtract using three-digit whole numbers
- E3.3 Divide three-digit whole numbers by single- and double-digit whole numbers and express remainders
- E3.4 Multiply two-digit whole numbers by single- and double-digit whole numbers
- E3.5 Approximate by rounding numbers less than 1000 to the 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
- Solve 1-step equations
- Solve 2-step equations
- Find pairs of values
- Solve problems with two unknowns


## Decimals

- Place value within 1
- Place value - integers and decimals
- Round decimals
- Add and subtract decimals
- Multiply by 10,100 and 1,000
- Divide by 10,100 and 1,000
- Multiply decimals by integers
- Divide decimals by integers
- Multiply and divide decimals in context


## Fractions, Decimal \& Percentages

- Decimal and fraction equivalents
- Fractions as division
- Understand percentages
- Fractions to percentages
- Equivalent fractions, decimals and percentages
- Order fractions, decimals and percentages
- Percentage of an amount - one step
- Percentage of an amount - multi-step
- Percentages - missing values


## Measurement

## Area, Perimeter \& Volume

- Shapes - same area
- Area and perimeter
- Area of a triangle - counting squares
- Area of a right-angled triangle
- Area of any triangle
- Area of a parallelogram
- Volume - counting cubes
- Volume of a cuboid
- 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 24 -hour 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


## Geometry

## Shape

- Measure and classify angles
- Calculate angles
- Vertically opposite angles
- Angles in a triangle
- Angles in a triangle - special cases
- Angles in a triangle - missing angles
- Angles in quadrilaterals
- Angles in polygons
- Circles
- Draw shapes accurately
- Nets of 3-D shapes


## Position \& Direction

- The first quadrant
- Read and plot points in four quadrants
- Solve problems with coordinates
- Translations
- Reflections
- 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


## Number

## Place Value

- E2.1 Count reliably up to 100 items
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- Add and subtract $1 \mathrm{~s}, 10 \mathrm{~s}, 100 \mathrm{~s}$ and $1,000 \mathrm{~s}$
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## Term 2: Jan-April Content

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- Correspondence problems
- Efficient multiplication


## Measurement

## Length \& Perimeter

- Measure in kilometres and metres
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- 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
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- Order decimals
- Round to the nearest whole number
- Halves and quarters as 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


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## Perimeter \& Area

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- Count squares
- Make shapes
- Compare areas


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## 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
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## 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

- Add three 1-digit numbers
- 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

- El.9 Identify and recognise common 2D 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

- E1.8 Describe and make comparisons in words between measures of items including size, length, width, height, weight and 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
- El.12 Sort and classify objects using a single criterion
- 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

Freckle: Inquiry Based Activity
Freckle: Inquiry Based Activity

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- 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
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## Term 2: Jan-April Content

## Measurement

## Area, Perimeter \& Volume

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- Area and perimeter
- Area of a triangle - counting squares
- Area of a right-angled triangle
- Area of any triangle
- Area of a parallelogram
- Volume - counting cubes

Volume of a cuboid

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## Term 3: April - July Content

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- Angles in polygons
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| Freckle based inquiry | Freckle based inquiry |
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