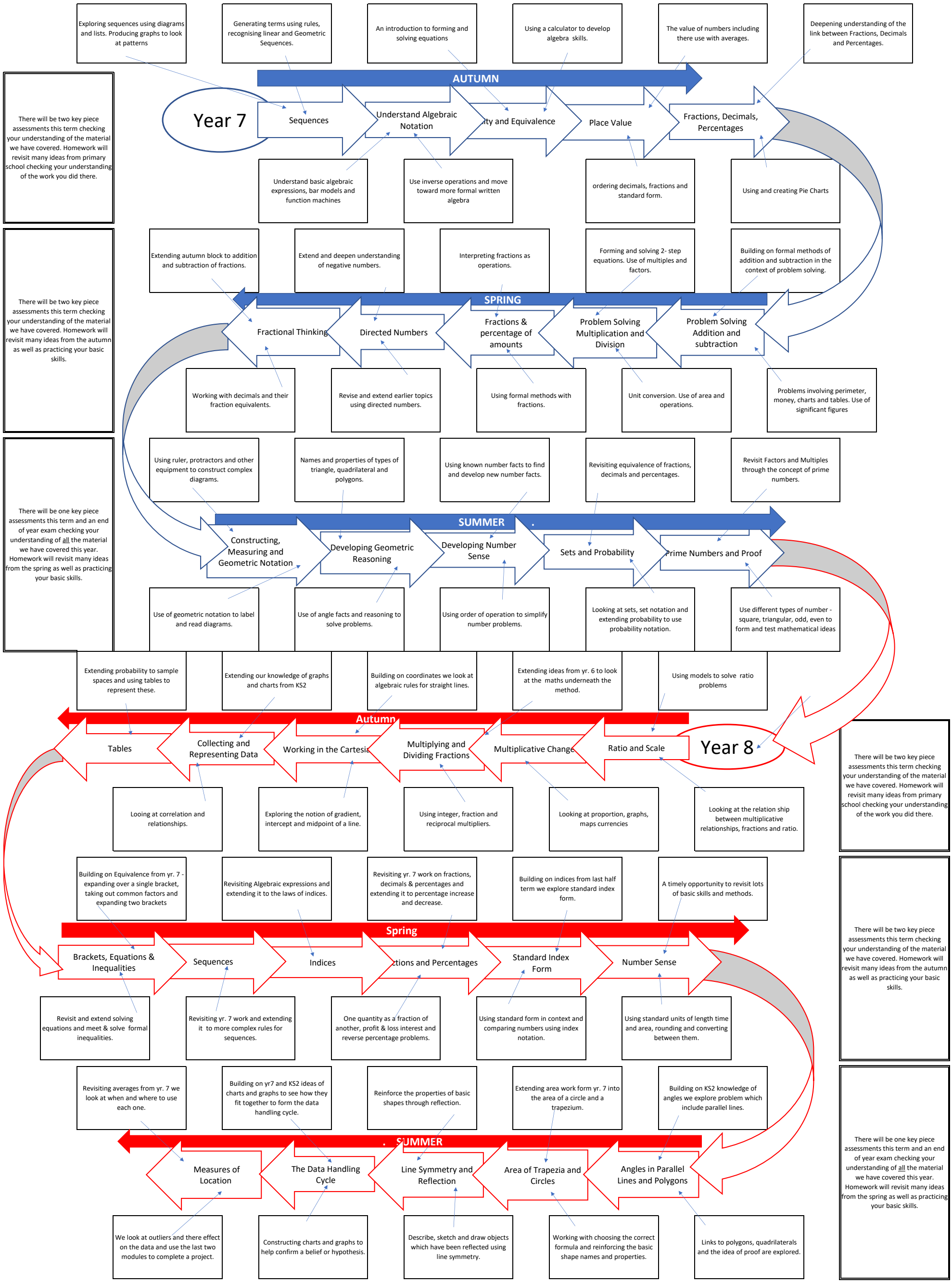
Year 7
AUTUMN
Exploring sequences using diagrams and lists. Producing graphs to look at patterns
Generating terms using rules, recognising linear and Geometric Sequences.
An introduction to forming and solving equations
Using a calculator to develop algebra skills.
The value of numbers including there use with averages.
Deepening understanding of the link between Fractions, Decimals and Percentages.
Sequences
Understand Algebraic Notation
ity and Equivalence
Place Value
Fractions, Decimals, Percentages
Understand basic algebraic expressions, bar models and function machines
Use inverse operations and move toward more formal written algebra
ordering decimals, fractions and standard form.
Using and creating Pie Charts
There will be two key piece assessments this term checking your understanding of the material we have covered. Homework will revisit many ideas from primary school checking your understanding of the work you did there.
SPRING
Extending autumn block to addition and subtraction of fractions.
Extend and deepen understanding of negative numbers.
Interpreting fractions as operations.
Forming and solving 2- step equations. Use of multiples and factors.
Building on formal methods of addition and subtraction in the context of problem solving.
Fractional Thinking
Directed Numbers
Fractions & percentage of amounts
Problem Solving Multiplication and Division
Problem Solving Addition and subtraction
Working with decimals and their fraction equivalents.
Revise and extend earlier topics using directed numbers.
Using formal methods with fractions.
Unit conversion. Use of area and operations.
Problems involving perimeter, money, charts and tables. Use of significant figures
There will be two key piece assessments this term checking your understanding of the material we have covered. Homework will revisit many ideas from the autumn as well as practicing your basic skills.
SUMMER
Using ruler, protractors and other equipment to construct complex diagrams.
Names and properties of types of triangle, quadrilateral and polygons.
Using known number facts to find and develop new number facts.
Revisiting equivalence of fractions, decimals and percentages.
Revisit Factors and Multiples through the concept of prime numbers.
Constructing, Measuring and Geometric Notation
Developing Geometric Reasoning
Developing Number Sense
Sets and Probability
Prime Numbers and Proof
Use of geometric notation to label and read diagrams.
Use of angle facts and reasoning to solve problems.
Using order of operation to simplify number problems.
Looking at sets, set notation and extending probability to use probability notation.
Use different types of number - square, triangular, odd, even to form and test mathematical ideas
There will be one key piece assessments this term and an end of year exam checking your understanding of all the material we have covered this year. Homework will revisit many ideas from the spring as well as practicing your basic skills.
Extending probability to sample spaces and using tables to represent these.
Extending our knowledge of graphs and charts from KS2
Building on coordinates we look at algebraic rules for straight lines.
Extending ideas from yr. 6 to look at the maths underneath the method.
Using models to solve ratio problems
Autumn
Year 8
Tables
Collecting and Representing Data
Working in the Cartesia
Multiplying and Dividing Fractions
Multiplicative Change
Ratio and Scale
Looing at correlation and relationships.
Exploring the notion of gradient, intercept and midpoint of a line.
Using integer, fraction and reciprocal multipliers.
Looking at proportion, graphs, maps currencies
Looking at the relation ship between multiplicative relationships, fractions and ratio.
There will be two key piece assessments this term checking your understanding of the material we have covered. Homework will revisit many ideas from primary school checking your understanding of the work you did there.
Building on Equivalence from yr. 7 - expanding over a single bracket, taking out common factors and expanding two brackets
Revisiting Algebraic expressions and extending it to the laws of indices.
Revisiting yr. 7 work on fractions, decimals & percentages and extending it to percentage increase and decrease.
Building on indices from last half term we explore standard index form.
A timely opportunity to revisit lots of basic skills and methods.
Spring
Brackets, Equations & Inequalities
Sequences
Indices
ctions and Percentages
Standard Index Form
Number Sense
Revisit and extend solving equations and meet & solve formal inequalities.
Revisiting yr. 7 work and extending it to more complex rules for sequences.
One quantity as a fraction of another, profit & loss interest and reverse percentage problems.
Using standard form in context and comparing numbers using index notation.
Using standard units of length time and area, rounding and converting between them.
There will be two key piece assessments this term checking your understanding of the material we have covered. Homework will revisit many ideas from the autumn as well as practicing your basic skills.
Revisiting averages from yr. 7 we look at when and where to use each one.
Building on yr7 and KS2 ideas of charts and graphs to see how they fit together to form the data handling cycle.
Reinforce the properties of basic shapes through reflection.
Extending area work form yr. 7 into the area of a circle and a trapezium.
Building on KS2 knowledge of angles we explore problem which include parallel lines.
SUMMER
Measures of Location
The Data Handling Cycle
Line Symmetry and Reflection
Area of Trapezia and Circles
Angles in Parallel Lines and Polygons
We look at outliers and there effect on the data and use the last two modules to complete a project.
Constructing charts and graphs to help confirm a belief or hypothesis.
Describe, sketch and draw objects which have been reflected using line symmetry.
Working with choosing the correct formula and reinforcing the basic shape names and properties.
Links to polygons, quadrilaterals and the idea of proof are explored.
There will be one key piece assessments this term and an end of year exam checking your understanding of all the material we have covered this year. Homework will revisit many ideas from the spring as well as practicing your basic skills.