Fraction progression

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| 0 | Understand fractions as a part of a whole/set |
| 1 | Write symbols to name fractional parts/Draw a picture to represent a given fraction |
| 2 | Order fractions with common denominators |
| 3 | Create equivalent fractions using models/frames |
| 4 | Find equivalent fractions (symbolically) |
| 5a | Compare two fractions with different numerators/same denominators |
| 5b | Compare two fractions with same numerators/different denominators. |
| 5c | Compare two fractions with different numerators and denominators. |
| 6 | Understand Improper Fractions/Mixed numbers |
| 7 | Compare and Order Improper fraction/Mixed Numbers |
| 8 | Relate Fractions to their equivalent decimals  A Tenths and Hundredths  B Halves, Quarters  C Fifths  D Eighths  E Thirds  F All combined |
| 9 | Compare and order Fractions, Decimals and Whole Numbers |
| 10 | Fraction of a number with 1 as numerator |
| 11 | Fraction of a number (¾ of 24) |
| 11B | Fraction of a number in a different context – 3 is three-quarters of what number |
| 12 | Sequencing with Fractions |
| 13 | Addition and Subtraction of Fractions (see progression) |
| 14 | Multiplication and division of Fractions (see progression) |
| 15 | Order of Operations with Fractions |

Progression – Percent

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| --- | --- |
| 1a | Recognize the percent symbol (%) and understand that per cent relates to number of parts per hundred and write fraction, decimal and percent. (grid of 100) |
| 1b | Recognize the percent symbol (%) and understand that per cent relates to number of parts per hundred and write fraction, decimal and percent. (grid of 10) |
| 1c | Recognize the percent symbol (%) and understand that per cent relates to number of parts per hundred and write fraction, decimal and percent. (grid of 1000) |
| 1d | Recognize the percent symbol (%) and understand that per cent relates to number of parts per hundred and write fraction, decimal and percent. (all of the above) |
| 2 | Find 50% of anything |
| 3a | Find 25% and 75% even numbers |
| 3b | Find 25%, 50% and 75% of even numbers |
| 4a | Find 10% of numbers that are multiples of 10 |
| 4b | Find 10% of any number |
| 5 | Find multiples of 10% (20%, 30%, 40%...) |
| 6a | Find 1% of numbers that are multiples of 10 |
| 6b | Find 1% of any number |
| 7 | Find any percent of a numbers |
| 8 | Find Percent greater than 100% |
| 9 | Find Percent less than 1% |
| 10 | a% of b = c   * Find percent (a) * Find whole (b)   Including word problems |
| 11 | Percent of a percent |
| 12 | Circle Graphs |
| 13 | Percent Increase/Decrease |
| 14 | Compare and order fractions, decimals and percent |

Progression Ratio

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| 0 | Provide a concrete or pictorial representation for a given ratio |
| 1 | Write a ratio from a given concrete or pictorial representation |
| 2 | Express ratios using   * Words * To * : * fraction |
| 3 | Identify and describe ratios from real-life contexts and record then symbolically |
| 4 | Explain the part/whole and part/part ratios of a set |
| 5 | Problem Solving questions dealing with ratio |
| 6 | Express a three term ration from a given context |
| 7 | Express a part to part ratio as a part to whole fraction |
| 8 | Express a given rate using words or symbols (20km/h) |
| 9 | Express a ratio as a percent and explain why a rate cannot be a percent |
| 10 | Explain the meaning of a/b within a given context and provide a context in which a/b represents a: fraction, rate, ratio, quotient and probability. |
| 11 | Solve problems involving rate, ratio and percent |
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|  | Probability |
| 0 | Describe a the likelihood of a single outcome occurring using words such as: impossible, possible and certain (provide examples and classify given events) |
| 1 | Compare the likelihood of two outcomes occurring as: less likely, equally likely and more likely |
| 2 | List the possible outcomes of a probability experiment |
| 3 | Determine the theoretical probability of an event |
| 4 | Predict the theoretical probability of an conduct an experiment in order to compare the theoretical probability and the experimental probability |
| 5 | Express probability as a fraction, ratio and percent |
| 6 | Provide examples of events with 0% probability and 100% |
| 7 | Identify all possible outcomes for two independent events such as 2dice, 2 coins tossed or spinner and dice |
| 8 | Determine the theoretical probability and experimental probability of two independent variables |
| 9 | Problem solving with probability |
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Progression Integers

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| 1 | Place negative numbers on a number line  Give examples of when integers are used (thermometer, debt, golf) |
| 2 | Determine opposite integers (+3 and -3) |
| 3 | Compare Integers (<,>) |
| 4 | Order integers |
| 5 | Sequencing with integers |
| 6 | Plot Coordinates in the 4 quadrants |
| 7 | The sum of opposite integers is zero (integer tiles) |
| 8 | Addition of integers (using a number line) |
| 9 | Subtraction of integers (using a number line) |
| 10 | Problem solving involving addition and subtraction of integers |
| 11 | Multiplication of integers   * 2 numbers * 3+ numbers (-2 x +5 x -3) |
| 12 | Division of Integers |
| 13 | Problem solving using multiplication and division of integers |
| 14 | Order of operations with integers |
|  | Line Graphs |
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Progression Algebra

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|  | Determine the pattern in sequences and represent it using an algebraic expression |
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| E | Finding the value of a single variable – One Step (addition and subtraction) |
|  | P + 3 = 12 (Letter is always first) |
| F | 3 – k = 1 (Letter varies) |
| G | Solve the expression when the variable is given (addition and subtractions) |
|  | 10 + T = ? T= 4 |
| H | Table of Values ( addition and subtraction) |
| I | Find the Value puzzles |
| J | Find the value of single variable with decimals (addition and Subtraction) |
| K | Find the value of a single variable – One Step (multiplication and Division) |
| K1 | Find the value of a single variable with decimals – (multiplication and division) |
| L | Solve the expression when the variable is given (multiplication and Division) |
| M | Find the value of a single variable – two step |
| N | Solve the expression when the variable is given – two step |
| O | Write the algebraic expression (six more than a number) |
| P | Find the value of a single variable with integers |
| Q | 3(2x – 4) |
| R | Table of Values and plotting graphs |
| S | Write an algebraic expression for area, perimeter, and volume |
| T | Problem Solving |
| U | Number lines |

Progression Geometry/Measurement

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| a | Find the missing part to make 1 whole ex. + \_\_\_ = 1 |
| b | Compare two fractions to 1 ex. + □ 1 |
| c | Find the missing part to make a whole number with improper fractions and mixed numbers ex. + \_\_\_ = 2 |
| 0 | Add two fractions with the same denominators ex. + |
| 1 | Add two fractions with the same denominators with answers above 1 ex. + |
| 2 | Addition of two fractions with same or different denominators in pictorial form (halves, quarters and eights) |
| 3 | Addition of two fractions with same or different denominators ( halves, quarters and eights |
| 4 | Addition of fractions in pictorial form (halves plus eights, quarters plus eights) |
| 5 | Addition of halves and eights, and quarters and eights, using fractions and decimals. |
| 6 | Addition of halves and eights, and quarters and eights, using fractions and decimals and mixed numbers. |
| 7 | Addition of fifths and tenths in pictorial form. |
| 8 | Addition of fifths and tenths |
| 9 | Addition of fifths and tenths including mixed numbers |
| 10 | Addition of thirds only |
| 11 | Addition of sixes |
| 12/13 | Review of all additions that were seen |
| 14 | Review of all additions that were seen including mixed numbers |
| 15 | Review of all additions that were seen including mixed numbers and decimal numbers. |
| 16 | Addition of fractions with a numerator of 1 and different denominators that are not (friendly) ex. Fifths and sixes, sevenths and thirds… |
| 17 | Addition of fractions with different numerators and denominators |

Addition of fractions

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| 1 | Find the difference between a unit fraction and 1 ex. + \_\_\_ = 1, 1 - |
| 2 | Find the difference between a fraction and 1 ex. 1 - |
| 3 | Find the difference between a fraction and a whole number, missing addend 1 - \_\_\_ = |
| 4 | Find the difference between two fractions with the same denominator.  Ex. - |
| 5 | Find the difference between a fraction and a mixed number with the same denominators. Ex. 1 - |
| 6 | Find the difference between quarters and halves. |
| 7 | Find the difference between quarters and eights. |
| 8 | Find the difference between halves and eights |
| 9 | Find the difference between fifths and tenths |
| 10 | Find the difference between halves and tenths |
| 11 | Find the difference between sixes and thirds |
| 12 | Find the difference between two fractions that have different denominators that are not friendly |
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| 14 |  |
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| 17 |  |
| 18 |  |
| 19 |  |
| 20 |  |

Subtraction of fractions

Progression for equality

1. One more/Two more

2. Counting on rom 5

3. Basic facts less than 10

4. Doubles/Doubles + or – 1

(Use Mango Tango Game for # 1 to #4)

5. Comparing to 5

6. Comparing to 10

7. Comparing to 15

8. Comparing to 20

9. Equality - Partners of 10 – Two, one-digit numbers

10. Equality - Partners of 20

11. Equality – Addition with 10, 9 and 8

12. Compare the sum of two multiples of 10 to 100 and 50

13. Equality - Partners of 100 – Multiples of 10

14. Compare the sum of two, two-digit numbers to 100 and 50

15. Equality – Partners to 100 – Two-digit numbers

15a. – Mix of equality

16. Compare the sum of two, three-digit multiples of 10 to 1000

17. Equality – Partners to 1000 – Three-digit numbers

18. Compare the sum of two, four-digit numbers to 10 000 and 5000

19. Compare the sum of two, five-digit numbers to 50 000 and 100 000

19a – Equality questions with two different operations

20. Equality – Partners to 1

21. Equality – Compare two decimal numbers

22. Equality – Compare the sum of two decimal numbers to 1, 0.5 and 5

23. Equality – Compare two decimal numbers in digits and written form

24. Compare fractions with decimal numbers

25. Equality – Compare the product of two, one-digit numbers

26. Equality – Compare the product of a 1-digit by a 2-digit multiple of 10

27. Equality – Compare the product of a 1-digit by a 2-digit number

28. Equality – Double/Half strategy

Representing Progression – Write the number

1. Three-digit numbers

2. Four-digit numbers

3. Five-digit numbers

4. Six-digit numbers

5. Seven or eight-digit numbers

6. Numbers with tenths

7. Numbers with hundredths

8. Numbers with thousandths

9. Mix of all numbers with decimals

10. Numbers with tenths like : 46 tenths equals…

11. Numbers with hundredths like : 500 hundredths equals…