Home Information Sheet
Fractions, Decimals and Percentages
Second Level (a)

I have explored the contexts in which problems involving decimal fractions occur and can solve related problems using a variety of methods.

MNU 2-03b

I have investigated the everyday contexts in which simple fractions, percentages or decimal fractions are used and can carry out the necessary calculations to solve related problems.

MNU 2-07a

I can show the equivalent forms of simple fractions, decimal fractions and percentages and can choose my preferred form when solving a problem, explaining my choice of method.

MNU 2-07b

I have investigated how a set of equivalent fractions can be created, understanding the meaning of the simplest form, and can apply my knowledge to compare and order the most commonly used fractions.

MNU 2-07c

Over the next few weeks we are going to be learning to:

- Recognise when we use decimal fractions e.g. money, measurement, sale prices, food labelling etc

- Know and understand that the decimal point separates whole numbers from fractions

- Know that the decimal point remains in the same place when multiplying or dividing by 10 and 100

- Be able to read decimal fractions, e.g. 3.12 is three point one two or three and twelve hundredth

- Place decimal fractions in order

- Understand that a fraction can be written as a division or as a decimal

- Use equivalent forms of simple fractions, decimal fractions and percentages in calculations, e.g. ¼ = 25% = 0.25, ½ = 50% = 0.5

Here are some ideas of how you can help me at home!

Bob and Betty *objects for sorting and counting* Ask children to collect some small objects for sorting, e.g. coins, grapes or sweets. They choose a multiple of 4, e.g. 16, 20, 24, 28 or 32 and count out that many objects. Explain that they must share them between Bob and Betty. Bob gets one quarter of them and Betty gets three quarters of them each time, e.g. 16 sweets, Bob gets 4 and Betty gets 12.

Badge making *squared paper* Ask children to draw different shaped badges made from up to 16 squares using squared paper. They shade each badge and write statements about what fraction of each badge is each colour, e.g. 3 \16 of this badge is red, etc.

Fractions Chain Children write a chain of at least six fractions, changing either the denominator or the numerator each time, 1/3, 2/3, 2/6, 5/6, 5/7, 2/7, 2/9. Then they write < , > or = correctly between each pair.

Here are some websites that you may find useful to use with me!

http://www.funbrain.com/fract/index.html   Fresh Baked Fractions

http://www.freewebs.com/weddell/Equiv%20Fractions%20Contents.html
Equivalent Fraction Activities

Home Information Sheet
Fractions, Decimals and Percentages
Second Level (b)

I have explored the contexts in which problems involving decimal fractions occur and can solve related problems using a variety of methods.

MNU 2-03b

I have investigated the everyday contexts in which simple fractions, percentages or decimal fractions are used and can carry out the necessary calculations to solve related problems.

MNU 2-07a

I can show the equivalent forms of simple fractions, decimal fractions and percentages and can choose my preferred form when solving a problem, explaining my choice of method.

MNU 2-07b

I have investigated how a set of equivalent fractions can be created, understanding the meaning of the simplest form, and can apply my knowledge to compare and order the most commonly used fractions.

MNU 2-07c

Over the next few weeks we are going to be learning to:

- Use a range of mental and written methods to calculate decimal fractions

- Select appropriate operations to solve real life problems involving decimal fractions, e.g. "3 ribbons, each 4.5m long, must be cut into nine pieces of equal length. How long is each piece?" Solve by calculating $4.5 \div 3$ or $(3 \times 4.5) \div 9$

- Find a fraction of a given amount, e.g. 3/8 of 400m

- Find simple percentages of quantities, e.g. 10%, 25%, 50%

- Demonstrate an understanding of the relationship between fractions, decimal fractions and percentages

- Create a set of equivalent fractions by multiplying or dividing the numerator and denominator by the same number

- Use division to express a fraction in its simplest form, e.g. 60/90 = 30/45 = 6/9 = 2/3

Here are some ideas of how you can help me at home!

Dominoes *slips of paper or card* Ask children to create their own set of improper-fraction and mixed-number dominoes. Using small slips of paper or card they try to make a loop of dominoes where the improper fraction on one domino is equivalent to the mixed number on another domino.

Explain *squared paper* Give children some squared paper. Ask them to draw diagrams and write an explanation to help a younger child understand why the fractions 18\24, 12\16, 9\12, 6\8 and 3\4 are equivalent. Suggest that they draw five rectangles made from 24 squares for this task.

Decimal search Ask children to collect items, labels or newspaper/magazine cuttings that involve decimals with hundredths, e.g. 2·75 l, 1·02 kg and to stick them into their learning logs. Ask them to write explanations of the decimals, e.g. 2·75 l is 2 whole litres and 75 hundredths of a litre, and to write each as a fraction or mixed number, e.g. 2·75 l = 2 75\100 l = 2 3\4 l.

Here are some websites that you may find useful to use with me!

http://nrich.maths.org/1249 Matching Fractions Decimals Percentages

http://www.bbc.co.uk/bitesize/ks2/maths/number/decimals/play/popup.shtml
Ordering Decimals

Home Information Sheet
Fractions, Decimals and Percentages
Second Level (c)

I have explored the contexts in which problems involving decimal fractions occur and can solve related problems using a variety of methods.

MNU 2-03b

I have investigated the everyday contexts in which simple fractions, percentages or decimal fractions are used and can carry out the necessary calculations to solve related problems.

MNU 2-07a

I can show the equivalent forms of simple fractions, decimal fractions and percentages and can choose my preferred form when solving a problem, explaining my choice of method.

MNU 2-07b

I have investigated how a set of equivalent fractions can be created, understanding the meaning of the simplest form, and can apply my knowledge to compare and order the most commonly used fractions.

MNU 2-07c

Over the next few weeks we are going to be learning to:

- Use a range of mental and written methods to calculate decimal fractions

- Show how to convert a percentage to a decimal fraction or vice versa, e.g. by multiplying or dividing by 100

- Apply knowledge and understanding of equivalent fractions, decimal fractions and percentages to solve problems, judging if the answer is reasonable

- Use our own choice of method to compare and order the most commonly used fractions

Here are some ideas of how you can help me at home!

Paper cut-outs *newspapers and magazines* Ask children to cut out 1-place decimal numbers from magazines and newspapers. They group them in pairs, then find the totals and differences of the numbers in each pair.

Puzzle time Ask children to find as many different solutions as they can for the following puzzle:

2·__ × _ = _ · _ 5

They find missing digits that could make the number sentence true, e.g. 2·45 × 3 = 7·35, 2·85 × 1 = 2·85, etc.

Check it out Ask children to explore the order of percentage changes in a question and determine whether they produce the same answer, e.g. to find out whether a 50% increase followed by a 10% decrease is the same as a 10% decrease followed by a 50% increase. Children choose a range of examples and write an explanation in their learning log.

Here are some websites that you may find useful to use with me!

http://www.mathplayground.com/Decention/Decention.html Math Game – Decention

http://www.funbrain.com/penguin/index.html Penguin Waiter Percent Game