Subtraction Prior Assessment Questions 6 and 7.

LO: I can subtract a decimal number from an amount

NASDM 8: I can solve problems involving subtraction

NASDM 7: solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why (yellow activity)

Teacher Input Ideas:

Children to be given lengths of pipes, ribbons or paper. Children to measure the length of the ribbon/pipe and record this down in metres. For example, 0.93m, 2.67 (this also provides an opportunity to assess measuring skills or apply measuring skills)

2.93 metres

Inform the children that you would like to find out the difference between some of the lengths of pipe/ ribbon. Take suggestions from the children as to how you may do this. Ask children to work out the difference in length by completing subtraction sums.

For example: 5.67m – 2.93 m =

Model using knowledge of place value to ensure that the amounts align at the decimal point. Encourage children to talk through how they have performed the written method using vocabulary such as decomposition, exchanging, hundreds, tens.

Then select two lengths that have different amounts of decimal places. Such as 3.09-1.9m . Explore different sums and model when you need to take amounts away from a whole number such as 12m- 7.892 m. (you may want to discuss 2dp and 3dp in relation to cm and mm)

Practice Activities

Purple Practice: Most suited for children who made errors in **Question 6 of the prior assessment task and would benefit from subtracting decimal amounts from decimal amounts with the same number of decimal places.**

 The activity sheet requires the children to use the decomposition method to subtract decimal amounts from other decimal amounts. It also provides the opportunity for children apply skills of exchanging and subtracting from zeros. Question 9 can be performed mentally. Children should spot this and perform this without using the decomposition method (efficiency and fluency).

Green Practice: Most suited for children who made errors in **Question 6 or 7 will benefit from subtracting decimal amounts from whole numbers and amounts with a different number of decimal places.**

Practical activity: Prepare strips/ribbons/pipes with measurements written on but tell the children that these are not to scale. Children to select 2 at a time to work out the difference in lengths by subtracting the lower amount from the higher amount. The children need to decide whether this calculation can be performed mentally or whether a written method is required.

The amounts should provide opportunity for the children to subtract decimals from whole amounts and decimals with a different number of decimal places.

Suggestion of amounts to use: 20m, 15m, 67m, 101m, 1.89m, 4.09m, 12.50m, 34.98m, 100.89m, 781.98m, 0.16m, 0.09m, 0.897m, 7.001m, 89.098m, 0.091m, 28.312m.

Yellow Practice Most suited for children **who are secure with subtraction and would benefit from applying skills to word problems.**

The word problems require the children to select the key information and understand which operations are needed. Additionally, the questions provide the opportunity for time, addition, place value, exchanging and dividing skills to be applied.

Mastery: The children are asked to follow the journey of two characters and work out how much money they return home with. This activity provides the children with the opportunity to decide if are going to use mental or written methods and think also about how they are going to approach it. Some children may choose to add all the amounts together first and then subtract whereas others may work through the journey taking away the amounts each time.

The challenge provides the opportunity for the children to explore their own combination and possibilities.

Answers

Purple:

1) 9.57	2) 106.47	3) 9.02
4) 43.3	5) 179.07	6) 759.2
7) 22.438	8) 62.31	9) 890.78
10) 3.809		

Green:

Discuss calculations created by the children and the answers they have found.

Yellow:

1) £36.38
2) 3 hours and one minute.
3) £11.25
4) £14,073

Mastery:

Dylan returns home with the most amount of money (£46.92)

BRICKWORK
Mathematics

Work out the answers to the sums below:

1) 12.89 – 3.32 =

2) 108.56 – 2.09 =

3) 17.92 – 8.90 =

4) 78.29 – 34.99 =

5) 190.09 - 11.02 =

6) 789.1- 29.9 =

7) 23.897 – 1.459 =

8) 63.98 – 1.67 =

9) 891.78 - 1.00 =

10) 102.006 – 98.197 =

Challenge: can you think of 3 real life examples of when you may subtract decimals from each other?

BRICKWORK
mathematics

Yellow Practice
LO: I can select the operations I need solve word problems and perform calculations with accuracy.

Look at the word problems below. Read the question carefully and pick out the key information. Decide which operations you need to use.

1. Mrs Patel spends £125.05 at the supermarket for her weekly shop. Her eldest son, Daniyal, wants to pay for his food. She bought him the following items:

1 large bag of pasta	£1.78
5 tins of tomatoes	£2.20
fruit	£9.07
2 pints of milk	87p
8 chicken fillets	£12.54
4 fish fillets	£8.42
2 cartons of orange juice	£1.50

   How much did Mrs Patel spend on the rest of the family?

2. Milana took 256minutes to complete a sponsored walk. She stopped for rests and lunch for a total of 1.25 hours. How long was she walking for in total? Record your answer in hours and minutes.

3. It cost Mr Potter £32 for 4 tickets to the farm for his 2 children, himself and his wife. For both children, he paid £9.50 altogether. How much did his ticket cost?

4. A car showroom sold cars for a total of £190827 in March. In April, they sold cars for a total of two hundred and four thousand and nine hundred pounds. How much more money did they receive in April?

Challenge: create your own word problem where 2 different operations are needed to calculate the answer.

BRICKWORK
mathematics

Dylan and Ryan both go shopping. Dylan has £85 to spend and Ryan has £110 to spend. Follow their journeys and work out you has the most money left at the end of their shopping trip.

Dylan
£85

Ryan
£110

£6.89

£5

£10.90

£42.54

£2.30

80p

£8

£13.07

£9.99
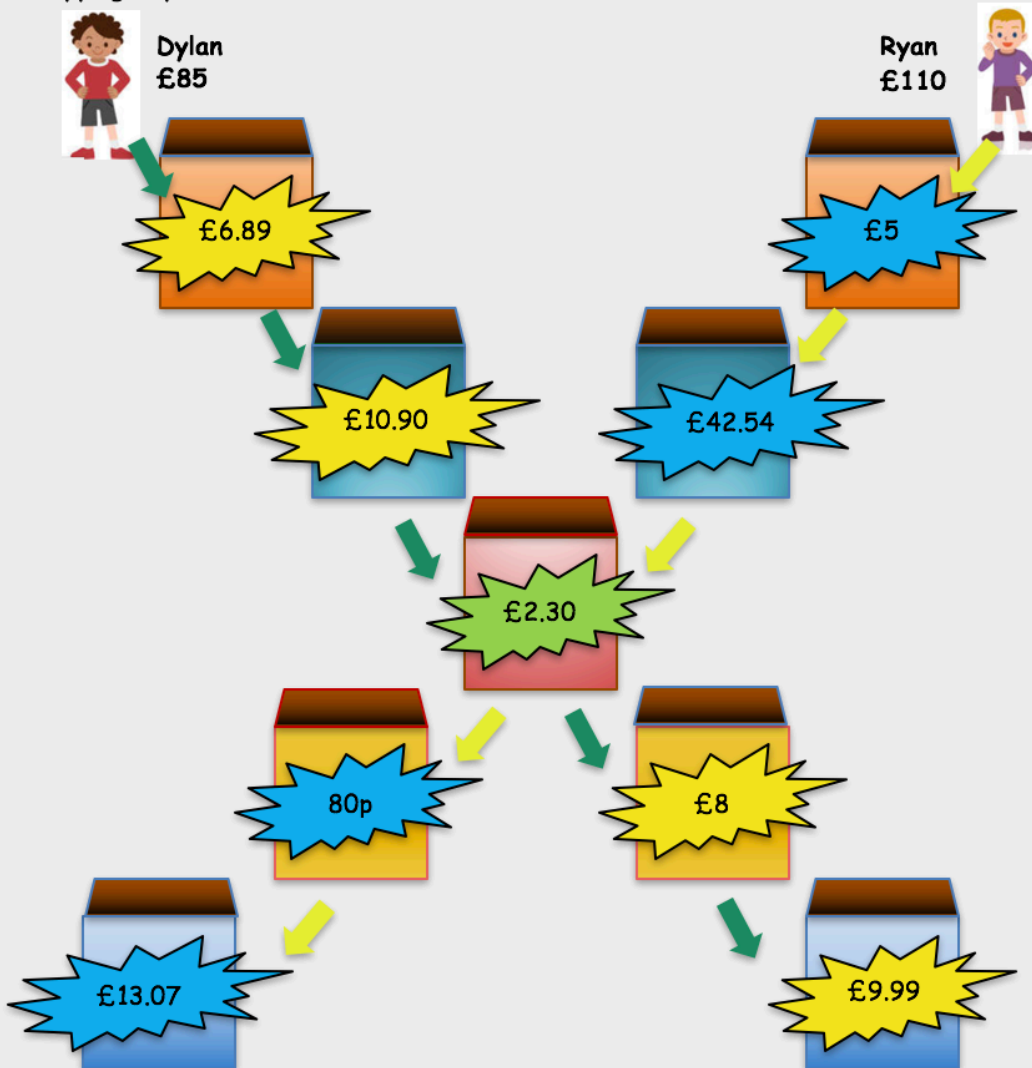
Who has the most money left?

Challenge: would the results be the same if they took a different journey each?