Addition Questions 8 and 9:

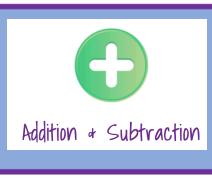
LO: I can answer sums laid out differently.

I can solve word problems.

NAS 4 : solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction..

Assessment Question 8 and 9:

Prior Learning :



Question 8 :
I can answer sums laid out in different ways.

I feel

| | = 210 + 63

Prior Learning :

Addition + Subtraction

Question 9 :
I can solve a word problem.

I feel

Harry, Logan and Briggi save their pocket money to go to a theme park together. They need £121. Here is what each child has saved so far.

£53

£25

£40

Do the children have enough money to go to the theme park?

Practice Activities

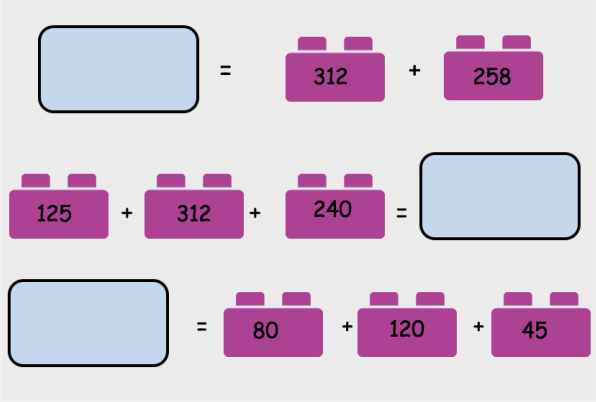
Below the children are presented with 3 different problems. You may want to spend a whole lesson on the problems or use these at the end of lessons to apply the children's calculation methods.

The children should be taught the skills to solve problems, therefore you want to model or discuss the following points:

- Looking for any familiar symbols or information.
- Picking out the information you know in the problem.
- Working out what you are being asked to do.
- Looking for any patterns or additional information.
- Applying own knowledge (for example place value for ordering or doubling.)
- Suggesting a suitable method for solving the problem.
- Estimating the answer.
- Suggesting a method for checking the answer.

<u>Mastery1</u>: Most suited for children who found Question 8 of the prior learning assessment hard and will benefit from developing understanding of how sums can be presented in different ways.

For this activity the children are presented with sums with missing boxes. The children are required to apply their mental and written addition skills to work out the missing amounts for each box in the sum. The children are presented with sums such as:



The children should understand that it does not matter which way the sum is presented that the equals sign is used to balance the sum and that is represents the total when the amounts are added together. The children may also read the sum as : ? is the same as 312+258. The children have the opportunity to apply written and mental strategies to add 3 amounts together.

Key questions:

Why are the sums presented in this way? What does the = sign mean? How can you calculate the answer? Can you add 3 amounts together? What strategies have you used? What amount can be added here ? What will the total be?

<u>Mastery 2:</u> Most suited for children who are ready to apply addition strategies to create number statements using the < > and = symbols.

For this mastery task the children are presented with 2 sets of amounts that are to be added together. When the children find the total of the amounts, they should be encouraged to decide which amount is greater than or less than and use the symbols to complete the statements. The children may need support in understanding the symbols. Some children may have only seen these symbols used to compare two amounts and lack understanding of how to use the symbols alongside calculations. The Children could explore adding 2 amounts together first to create totals and then use the symbols to create own statements. Remind the children of the calculations they completed to get these amounts. Once the children show understanding here, this activity can be presented to them.

<u>Mastery3</u>: Most suited for children who need to further secure skills demonstrated in Question 9 of the prior learning assessment.

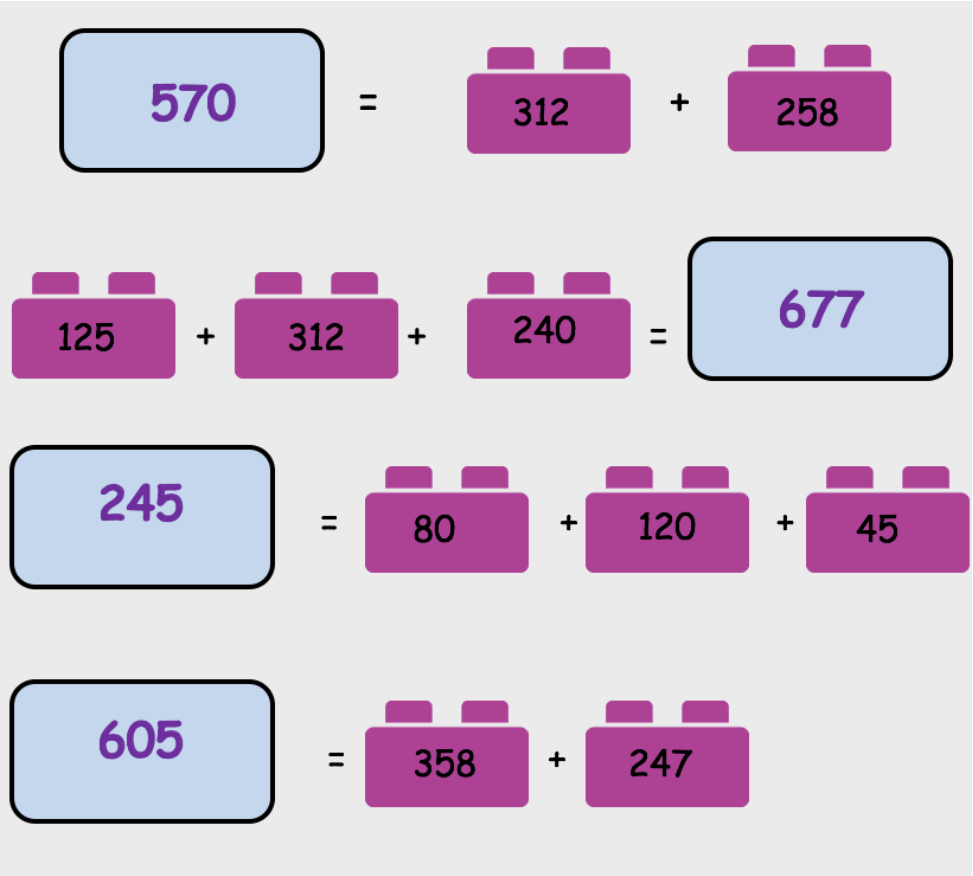
The children are presented with word problems that require the children to apply their addition skills. In other calculation sections, the children are presented with problems where they are required to use addition and another operation. For these problems, the children can use solely addition, however they may need to complete more than one sum. Encourage the children to pick out the key information and to suggest what they are required to do. Some questions require the children to add more than once to test the children's understanding of picking out the relevant information and their understanding of how word problems are presented.

Key questions:

What is the question asking you to do? Explain how you will work this out? Can you find the key information you need? Which amounts will you use? Why? Have you worked out the answer? Explain how you have checked your working out.

<u>Answers</u>

Mastery 1:



Mastery 2 :

Explore children's answers and encourage them to explain their choices. .

Mastery 3:

1) a) 562
   b) Ethan
2) 250 glue sticks
3) 500 kilograms

BRICKWORK Mathematics

Mastery 1

Fill in the missing boxes to make each sum complete.

BRICKWORK Mathematics

Mastery 2:

1) Place the correct block to make these number statements correct:

267 + 132 ☐ 202 + 185

287 + 453 ☐ 564 + 176

521 + 126 ☐ 419 + 354

2) Place the blocks in the correct positions to make this number statement correct:

☐ + ☐ < ☐ + ☐

BRICKWORK Mathematics

Mastery 3

Word problems

1) Ethan plays a game on his computer. His friend Jamal has the highest score of 545 points for completing 3 levels. Here are Ethan's scores for each level.

Level 1	Level 2	Level 3
134	274	154

a) What is Ethan's total score?

b) Who has the highest score?

2) Miss Taylor buys glue sticks for years 5 and 6 at her school. She buys 130 glue sticks in September. In January she buys 2 boxes of 60 glue sticks. How many glue sticks does she buy in total?

3) At a zoo, the zoo keeper is in charge of feeding 2 elephants. Each day he feeds one elephant 125 kilograms of food. How many kilograms do both elephants eat after 2 days?