What Bar Modelling Look Like at St Aldhelm's

November 2018

Bar Models are used to help work out what calculations need to be done. They should be used alongside Techniques for Success especially with the Techniques for tackling word stories.
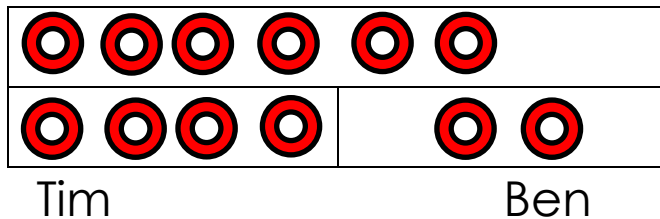
Two types of Bar Model are used at St Aldhelm's: a Part Whole Bar Model and a Comparison Bar Model.

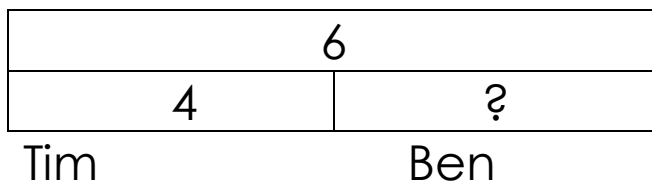All Bar Models should be accompanied by a number sentence to the right hand side.

Part Whole Bar Model

Part Whole Bar Models need the 'whole' at the top, the value labelled within the bar and the names underneath.

Bar Models will also use the Concrete Pictorial Abstract approach. Children may progress from using manipulatives such as cubes, apples or cereal hoops within a given bar model proforma to drawing images of these to creating their own bars.
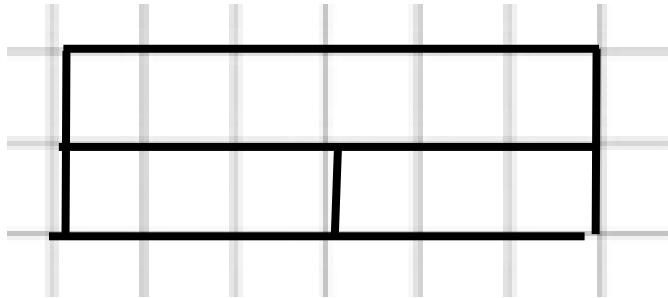

4 + 2 = 6

6 - 4 = ?

6 – 4 = 2

When children are ready to draw their own Bar Models they should be drawn with care and accuracy. In order to do this they should be modelled by teachers.

If chn need 1-1 correspondence and bonds to numbers < 10 then bar models should be drawn 10 squares wide.

From Y1/2 onwards bar models should be 6 x 2 rectangle or 8 x2 if Thousands numbers.

If numbers beyond 9999, one digit square rule may be disapplied!

Children should use rulers and the lines in their maths books to help keep their models neat. They should be 6 squares across and 2 down. Dots to mark the corners can be provided by adults to help children draw the models.

Comparison model

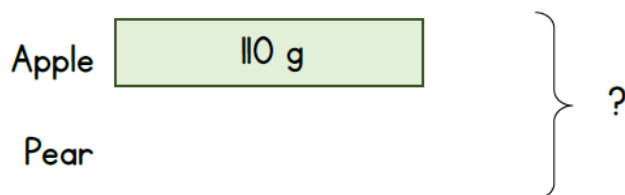Comparison models should be drawn with 1 square high then 1 square gap between the bars.

Comparison bar models should be labelled with names to the left hand side (with initial if needed ie C for Christopher)
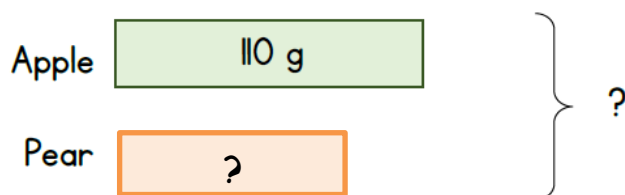
Question

An apple weighs 110 g.

A pear is 24 g lighter than the apple.

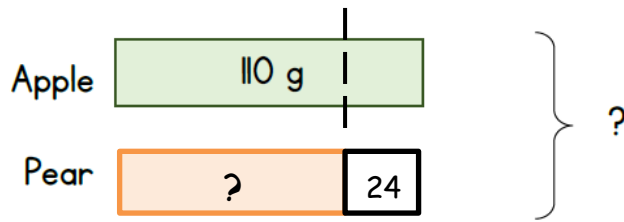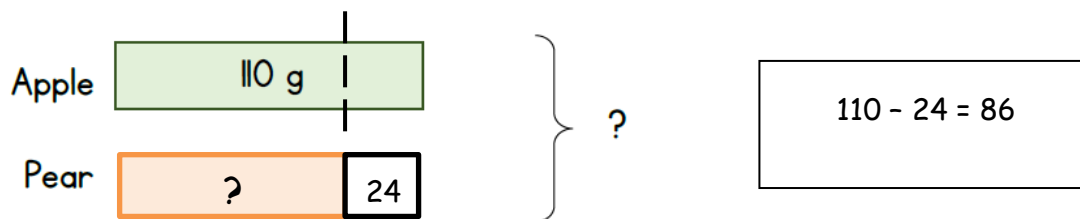How much does the apple and pear weigh in total?

Solution

Step 1

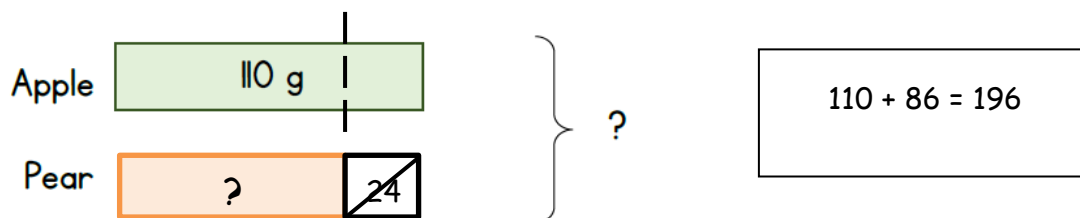We are drawing a shorter bar to represent the pear because we know that the pear is lighter than the apple.

Step 2

Apple	110 g
Pear	?	24

} ?

We know that the pear is 24g lighter than the apple.

Step 3

Apple	110 g
Pear	?	24

} ?

110 – 24 = 86

We know that the pear is 24g lighter than the apple. Therefore we need to subtract the difference of 24g from the weight of the apple (110g). The weight of the pear is 86g.

Step 4

Apple	110 g
Pear	?	24

} ?

110 + 86 = 196

Now I know the weight of the pear, I can cross out the 24. The weight of the pear is 86g and the apple is 110g. Therefore the total weight is 196g.

Complete question in book

Step 4

Apple	110 g
Pear	?	24

} ?

110 – 24 = 86

110 + 86 = 196