

Year 2 Unit 3 (Spring term) Support Session 1

Using known facts to add mentally

Objectives

Know by heart all pairs of numbers that total 10.

Add three numbers mentally by finding pairs that total 10.

Vocabulary

strategy
add together

Resources

Tin
10 pennies
OHP
OHP counters
(or counters and re-usable adhesive)

Oral and mental starter

Ask group to close their eyes and to listen and count as you drop 10 pennies into a tin.

Q How many pennies are in the tin?

Remove the pennies, now drop 6 pennies into the tin.

Q How many more do I need to put into the tin to make 10?

Repeat.

Main activity

Stick counters to the board (or use an OHP and OHP counters) to illustrate an addition calculation, for example:

$$\begin{array}{ccccccc} \text{OO} & + & \text{OOOOO} & + & \text{OOOOOOO} & & \\ 2 & + & 5 & + & 8 & & \end{array}$$

Q Which two numbers will total 10? How does this help us with the calculation?

Move the 2 counters to join the 8 counters to make 10.

$$\begin{array}{l} \text{Write } 2 + 8 = 10 \\ \quad \quad 10 + 5 = 15 \end{array}$$

Repeat the above using:

$$\begin{array}{ccccccc} \text{OOO} & + & \text{OOOO} & + & \text{OOOOOOO} & & \\ 3 & + & 4 & + & 7 & & \end{array}$$

$$\begin{array}{ccccccc} \text{OOOO} & + & \text{OO} & + & \text{OOOOOO} & & \\ 4 & + & 2 & + & 6 & & \end{array}$$

Ask individuals to rearrange counters and to record the calculations on their

Plenary

Write a selection of calculations on the board, for example,

$1 + 3 + 9 \quad 7 + 5 + 3$

$2 + 6 + 8 \quad 5 + 2 + 5$

$4 + 5 + 6 \quad 3 + 7 + 2$

Explain that when we have to add three numbers together a useful strategy is to look for pairs that total 10.

As individuals to circle the two numbers that total 10 in the calculations.

Solve a few of the calculations as a group.

Year 2 Unit 3 (Spring term) Support Session 2

Using known facts to add mentally

Objectives

Recall double facts to $10 + 10$

Identify near doubles using doubles already known

Vocabulary

double
near double
add together
one more
consecutive numbers

Resources

Models and Images chart (Addition and subtraction facts to 20)
Interlocking cubes
Number cards 1-10

Oral and mental starter

See Models and Images Chart *Addition and subtraction facts to 20*

Ask the children to recall double facts up to $5 + 5$ using fingers.
Say that we run out of fingers to help us when we double 6, 7, 8 and 9.

Demonstrate using cubes to partition these numbers into 5 and a bit – double 6 is double 5 and double 1.
Repeat for double 7, 8 and 9.

Main activity

Use a 1-10 washing line or stick 1-10 number cards on the board.

Point to different numbers on the line and ask the class to double the number pointed at.

Q How can we work out double 8?

Remind children to view it as double 5 add double 3.

Take two consecutive numbers from the line and use them to make a calculation, for example 4 and 5 to make $4 + 5$.

Q How can we use what we know about doubles to help us add these two numbers?

Hold up two towers of 4, saying 'double 4 is 8 but we need to add 4 and 5'. Add one more cube to a tower of 4 saying 'now we have 4 add 5, we can add 4 and 4 and 1 more. 4 add 4 is 8 and one more is 10'.

Repeat for other consecutive numbers using pairs of towers to demonstrate near doubles.

Give each child a whiteboard and ask them to write some near double calculations for their partner to solve.

Plenary

Write some calculations on the board, for example:

$$6 + 2 + 7 \quad 5 + 2 + 6 \quad 9 + 2 + 3$$

Explain that in Session 1 we looked for pairs of numbers that made 10 to help us add three numbers.

Say that another useful strategy is to look for near doubles.

Ask the group to identify the near doubles in each calculation.

Solve one or two of the calculations as a group.