

## Rapid recall of multiplication and division facts

### As outcomes, Year 2 pupils should, for example:

Know by heart multiplication facts for:

- 2 up to  $2 \times 10$
- 10 up to  $10 \times 10$

and derive quickly the corresponding division facts.

Begin to know multiplication facts for:

- 5 up to  $5 \times 10$

and derive the corresponding division facts.

For example, for multiplication and division by 2, know or derive quickly:

$$1 \times 2 = 2 \quad 2 \div 2 = 1$$

$$2 \times 2 = 4 \quad 4 \div 2 = 2$$

...

$$9 \times 2 = 18 \quad 18 \div 2 = 9$$

$$10 \times 2 = 20 \quad 20 \div 2 = 10$$

Respond rapidly to oral or written questions phrased in a variety of ways, such as:

- Six twos.
- 3 times 2.
- 5 multiplied by 2.
- Multiply 4 by 2.
- How many twos in 12?
- Divide 20 by 2.

Understand, use and begin to read:

*double, twice, half, halve, whole, divide by 2, divide into 2...*

Use known facts to derive quickly:

- doubles of numbers 1 to 15;
- doubles of 5, 10, 15... to 50;
- halves of even numbers to 20;
- halves of multiples of 10 up to 100.

For example, respond quickly to oral or written questions phrased in a variety of ways, such as:

- Double 8... Double 35...
- Half of 18... Half of 70...
- Twice 6... Twice 50...
- $\frac{1}{2}$  of 12.
- Sarah spent half of her 60p pocket money. How much did she spend?
- Two ices cost 80p. What does one ice cost?

Complete written questions, for example:

- with rapid recall:

$$8 + 8 = \square \quad 7 + \square = 14$$

$$8 \times 2 = \square \quad 14 \div \square = 7$$

- using rods, cubes or a number line, then derive quickly:

$$12 + 12 = \square \quad \text{half of } 14$$

$$35 \times 2 = \square \quad 22 \div 2 = \square$$

$$\square \times 2 = 26 \quad \square \div 2 = 11$$

### As outcomes, Year 3 pupils should, for example:

Know by heart multiplication facts for:

- 2 up to  $2 \times 10$
- 5 up to  $5 \times 10$
- 10 up to  $10 \times 10$

and derive quickly the corresponding division facts.

Begin to know multiplication facts for:

- 3 up to  $3 \times 10$
- 4 up to  $4 \times 10$

and derive the corresponding division facts.

For example, for multiplication and division by 10, know or derive quickly:

$$1 \times 10 = 10 \quad 10 \div 10 = 1$$

$$2 \times 10 = 20 \quad 20 \div 10 = 2$$

...

$$9 \times 10 = 90 \quad 90 \div 10 = 9$$

$$10 \times 10 = 100 \quad 100 \div 10 = 10$$

Respond quickly to oral or written questions phrased in a variety of ways, such as:

- Six fives.
- 3 times 5.
- 5 multiplied by 3.
- Multiply 4 by 5.
- How many fives in 35?
- Divide 30 by 5.

Use, read and begin to write:

*double, twice, half, halve, whole, divide by 2, divide into 2...*  
and  $\frac{1}{2}$  as one half.

Use known facts to derive quickly:

- doubles of all numbers 1 to 20;
  - doubles of 5, 15, 25... up to 100;
  - doubles of 50, 100, 150, 200... up to 500;
- and the corresponding halves.

For example, respond quickly to oral or written questions phrased in a variety of ways, such as:

- Double 19... Double 75... Double 350...
- Half of 36... Half of 150... Half of 700...
- $\frac{1}{2}$  of 600...  $\frac{1}{2}$  of 34...
- Twice 85.
- Anil spent half of his £1.40 savings. How much did he spend?
- How many centimetres is half a metre?

Complete written questions, for example:

- derive quickly:

$$60 + 60 = \square \quad 80 + \square = 160$$

$$60 \times 2 = \square \quad 160 \div \square = 80$$

- using cubes or a number line, then derive quickly:

$$42 + 42 = \square \quad \text{half of } 68$$

$$34 \times 2 = \square \quad 42 \div 2 = \square$$

$$\square \times 2 = 86 \quad \square \div 2 = 43$$