



# Introduction

This series of four photocopiable books will provide an indispensable resource for use with those pupils who find it difficult to keep up with the learning objectives for the majority of pupils in their class or group. Using material written for a lower year group with these pupils can make it difficult to integrate their learning with that of the majority of the class. The material in this book enables you to give work at a lower level of difficulty in daily maths lessons.

You can use this book to provide alternative, and less demanding, tasks for less able pupils during the groupwork phase of the daily maths lesson. The work in each lesson is designed to support whole-class lesson objectives but to address them at a lower level. For the four books, the level of demand is as follows:

<b>Book</b>	<b>Support for children in:</b>	<b>Level of work equivalent to:</b>
1	Year 2–3	Year 1 or Year 2
2	Year 3–4	Year 2
3	Year 4–5	Year 3
4	Year 5–6	Year 4

It is assumed that all the pupils will take part, with support if necessary, in the whole-class introduction to the lesson before tackling the task from this book.

The teacher's notes will guide you in introducing the tasks to the pupils and in effective ways of working. These notes will help you, or a teaching assistant, to support pupils appropriately as they work.

Each task is supported by photocopiable pupil material in the form of activity sheets and, where appropriate, resource sheets that illustrate the steps to follow in completing a task. These are intended to provide additional support for the pupil, or, in some cases are to be used by a learning-support assistant where this is more appropriate. It is likely that pupils will need help in reading the instructions on the sheets. You may wish to cut the pupil sheets up or to add further examples of a particular type of task to meet the needs of individual pupils.

In addition to the photocopiable material, pupils will need ready access to aids such as number lines, hundred squares and counters.

# Contents

<i>Focus</i>	<i>Resources</i>	<i>Activity</i>	<i>Page</i>
Place value and ordering, reading scales		'Two by two' 'Around the circle (1)'	1–4
Subtraction and addition		'Around the circle (2)'	5–6
Subtraction and addition, checking results		'First to fifty'	7–8
Addition	'Counting up'	'Number aliens'	9–11
Addition and subtraction, money problems		'Which coins? (1)' 'Which coins? (2)'	12–14
Length		'Marking lines' 'Square lines'	15–17
Length		'Square columns'	18–19
Three-dimensional shape		'Shape faces'	20–21
Two-dimensional shape	'How many shapes?'	'Crosses'	22–25
Two-dimensional shape, reasoning about shapes		'Shape maker'	26–27
Properties of numbers, reasoning about numbers	'Find the numbers'	'Adding on'	28–30
Properties of numbers, reasoning about numbers		'Odds and evens'	31–32
Multiplication and division		'Wrigglers'	33–34
Multiplication and division, mental calculation strategies	'Sharing squares'	'Circles and squares'	35–37
Multiplication and division	'Doubling squares'	'Doubling circles and squares'	38–40
Multiplication and division, money and 'real-life' problems	'Match the sum'	'Match the sum'	41–43
Fractions	'Shape fractions'	'Shape fractions'	44–46
Fractions	'Finding halves and quarters'	'Fraction boxes'	47–49
Addition and subtraction	'Subtraction'	'Subtracton circles'	50–52
Time		'How long?'	53–54
Handling data		'Colour table'	55–56
Handling data		'Colour graph'	57–58
Place value, ordering and reading numbers from scales	'More or less?'	'More or less?'	59–61
Addition and subtraction	'Find the number (1)'	'Find the number (1)'	62–64
Addition and subtraction	'Find the number (2)'	'Find the number (2)'	65–67
Addition and subtraction	'Sums and differences'	'Sums and differences'	68–70
Addition and subtraction	'What can I buy?'	'What can I buy?'	71–73
Capacity and mass	'How much in the jug?'	'Drinks'	74–76
Mass and capacity		'Fruit and vegetables'	77–78

# Contents

<i>Focus</i>	<i>Resources</i>	<i>Activity</i>	<i>Page</i>
Direction	'Directions (1)'	'Spirals'	79–81
Position and direction		'Find the way'	82–83
Symmetry		'Symmetrical aliens'	84–85
Properties of numbers		'Pair totals'	86–87
Properties of numbers, reasoning about numbers		'Pyramid patterns'	88–89
Multiplication and division	'Missing numbers (1)'	'Missing numbers (1)'	90–92
Multiplication and division	'Missing numbers (2)'	'Missing numbers (2)'	93–95
Multiplication and division, including money		'How much?'	96–97
Multiplication and division	'Boxes and rings'	'Rings and boxes'	98–101
Fractions	'Fractions'	'Cross fractions'	102–105
Fractions, ratio and proportion		'More cross fractions'	106–107
Data handling	'Twos and fives'	'Twos and fives'	108–110
Data handling		'More twos and fives'	111–112
Place value, ordering and rounding	'Rounding numbers'	'Rounding numbers'	113–115
Addition and subtraction	'Finding missing numbers (1)'	'Magic triangles'	116–118
Addition and subtraction	'Finding missing numbers (2)'	'Missing numbers (3)'	119–121
Addition and subtraction	'100 score'	'100 score'	122–124
Addition and subtraction	'More missing numbers (1)'	'More missing numbers (1)'	125–127
Area and perimeter	'Counting squares'	'Squares'	128–130
Area and perimeter		'More squares'	131–132
Angle	'Directions (2)'	'Shape maker'	133–136
Angle	'Rotations'	'Rotations'	137–139
Reasoning about shapes		'Tangrams'	140–142
Reasoning about numbers	'Addition triangles'	'Addition triangles'	143–146
Reasoning about numbers and shapes		'How many sticks?'	147–148
Multiplication and division	'Missing numbers (3)'	'Missing numbers (4)'	149–151
Multiplication and division	'More missing numbers (2)'	'More missing numbers (2)'	152–154
Multiplication		'Closest product'	155–156
Multiplication and division, problems including money	'Adding coins'	'How much?'	157–160
Fractions and decimals		'Matching money'	161–162
Fractions and decimals		'Top and bottom'	163–164
Addition and subtraction	'Adding'	'Addition squares'	165–168
Addition and subtraction	'Missing symbols'	'Missing symbols'	169–171
Handling data		'Days and months (1)' 'Days and months (2)'	172–175

# Two-dimensional shape

## Learning objectives

- Use two-dimensional shapes to make and describe patterns.

## Resource

'How many shapes?'

## Activity

'Crosses'

## Teacher's notes

Give pupils a copy of the resource 'How many shapes?'. This shows how simple shapes can be divided into different shapes. Follow this with the activity 'Crosses'. On this sheet, two different crosses are drawn: one is made from four rectangles; the other is made from four triangles.

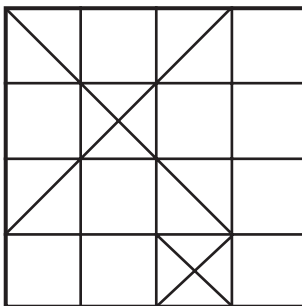
Next, two different crosses are drawn in squares. One cross has a vertical and a horizontal arm. This produces **four squares**. The other cross has two diagonal arms. This produces **four triangles**.

The next shapes are **two squares** and **four small triangles** (note that pupils may count the large triangles and answer **six triangles**). Drawing a line to join the two dots produces **eight (or twelve) triangles**.

## Follow-up activities

- This activity can be extended by asking pupils to draw crosses from different points in a grid of say eight or sixteen squares. Different designs can be created. How many squares and triangles have they in their designs?

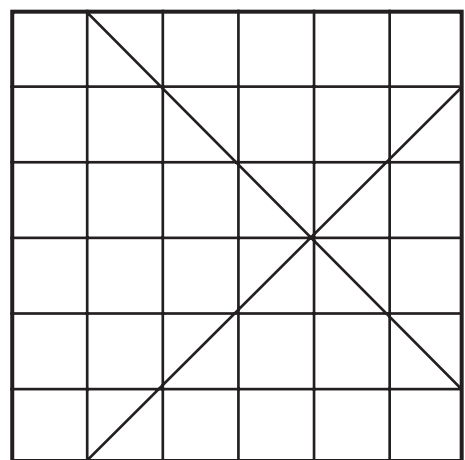
## Examples:



Two crosses, one large and one small, have converted 16 squares into 10 squares and 16 small triangles (plus large triangles).

Draw two more lines so half of the squares are turned into triangles.

How many squares and triangles will there be? (See answers on page 23.)





## Answers

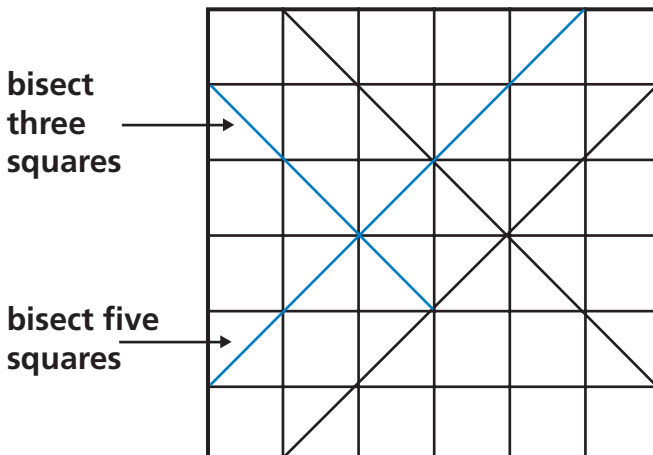
### 'Crosses' Page 25

The first two shapes are both crosses, made from rectangles and triangles respectively.  
The third shape has four squares in it.  
The fourth shape has four triangles in it.  
The fifth shape has four small triangles and two squares.  
Drawing a line produces four more small triangles.

### Follow-up activities Page 22

Second example:  
Start with 36 squares.  
Two lines bisect 10 squares.  
There are now 26 squares.

Draw two more lines to bisect eight more squares.  
There are now 18 squares (half the original number) and 36 triangles.



Name: \_\_\_\_\_

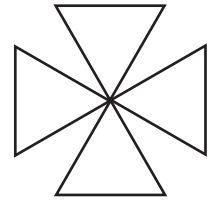
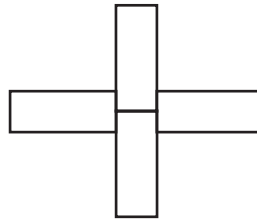
Date: \_\_\_\_\_

# Crosses

Activity

Here are two crosses.

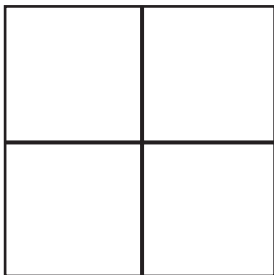
Each cross is made from four shapes.



★ Write the name of each shape:

\_\_\_\_\_

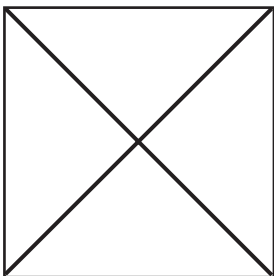
\_\_\_\_\_



★ Look at this cross in a square.

How many shapes are there? \_\_\_\_\_

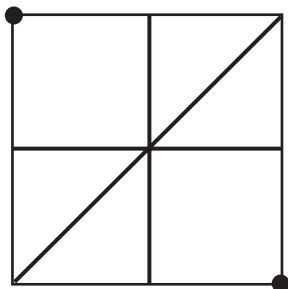
Each shape is a \_\_\_\_\_.



★ Look at this cross in a square.

How many shapes are there? \_\_\_\_\_

Each shape is a \_\_\_\_\_.



★ What shapes can you see in this square?

Shape: \_\_\_\_\_

How many? \_\_\_\_\_

Shape: \_\_\_\_\_

How many? \_\_\_\_\_

Draw a line to join the two dots.

What shapes can you see? \_\_\_\_\_

How many? \_\_\_\_\_

I can recognise two-dimensional shapes.

