

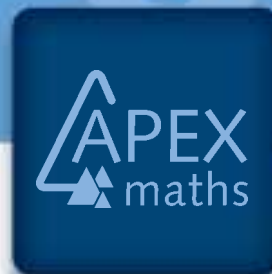
CAMBRIDGE

NUMERACY

Catalogue 2003



Cambridge
Maths Direct



Apex
Maths

Service to Schools

At Cambridge we aim to exceed your expectations

Our friendly and knowledgeable team of customer service assistants, sales consultants and information line specialists are on hand to provide the highest possible standard of service to help you make the right choice for your school. Whether you require product information, wish to place an order, or wish to take advantage of our demonstration or evaluation services, we can offer advice tailored to your school's needs.

Books raise standards
www.books-raise-standards.co.uk

Choose the Right Resources

Demonstration Service

Our professional team of Sales Consultants will be happy to talk you through our resources, provide up-to-date information or sample material, and prepare an individualised quotation. This service is **free of charge, entirely without obligation** and our Sales Consultants do not receive commission. Our Consultants will be happy to visit your school at a time convenient to you and your colleagues. To make an appointment:

- Contact your local Sales Consultant direct (see page 25)
- Return the reply-paid presentation request cards
- Call our Education Information Line on 01223 325013

Approval Service

Selected individual titles are available for approval. The easiest way to order approval copies of our key numeracy resources is to return the reply-paid cards. Alternatively use the order form, where titles available on approval are indicated by a tick box. After 30 days, approval copies may be purchased or returned in good condition at your school's expense. Approval copies cannot be sent to home addresses.

If you wish to see resources that are not available on approval (for example Interactive Pictures) please contact your local Sales Consultant.

Education Information Line

01223 325013

For general enquiries or information on any of our numeracy resources please call our Education Information Line. Our experienced staff will be pleased to help you. Lines are open Monday – Friday 08.30–17.30. A voicemail service can take your message outside office hours.

Website

www.cambridge.org/education/primary

Make sure you visit our Primary website for all the essential information on our top-selling literacy and numeracy resources. Why not take advantage of the free, downloadable teacher notes and classroom support materials?

Bookshop Showroom

All of our Primary resources can be browsed and bought at the Cambridge University Press Bookshop, 1 Trinity Street, Cambridge, CB2 1SZ.
Phone: 01223 333333.
Email: bookshop@cambridge.org

For product information

Call our Education Information Line on **01223 325013** or visit
www.cambridge.org/education/primary



To place an order

Call Customer Services on **01223 325588** or contact your local Sales Consultant (see page 25)

To evaluate resources

Return the **reply-paid cards** or contact your local Sales Consultant (see page 25)

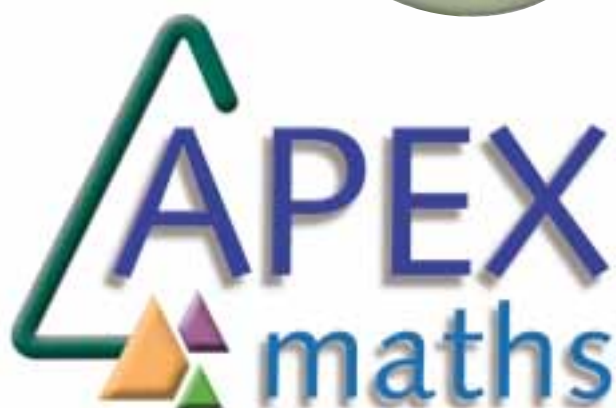
Contents

<p>APEX MATHS</p> 	new	4–7
<p>CAMBRIDGE MATHS DIRECT</p> 	new	8–19
ACTIVITY AND RESOURCE BOOKS		20–23
<p>BEAM</p>		20
Talking Points		20
Numbers	new edition	21
Playing with Numbers		21
Puzzles, Mazes and Numbers		21
Seven Dizzy Dragons		22
Cambridge Number Rhymes		22
Mathswords		22
Cambridge Maths Assessment CD-ROMs		new
23		
Mental Maths		23
Home Maths		23
INDEX		24
SALES CONSULTANTS		25

Discover Cambridge

Apex Maths

new

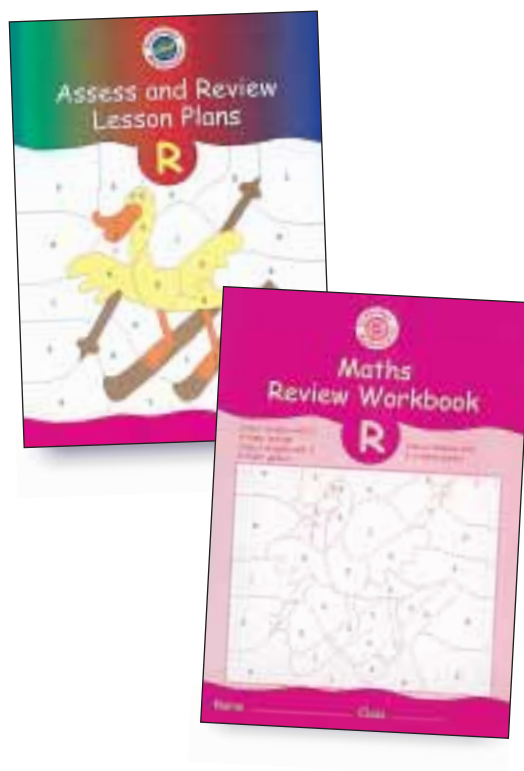


Extension *for all* through
problem solving.

Published Spring
for Years 1–6

See pages 4–7 >>>>

Assessment



A ready-made assess and review
package for Reception and
Key Stage 1.

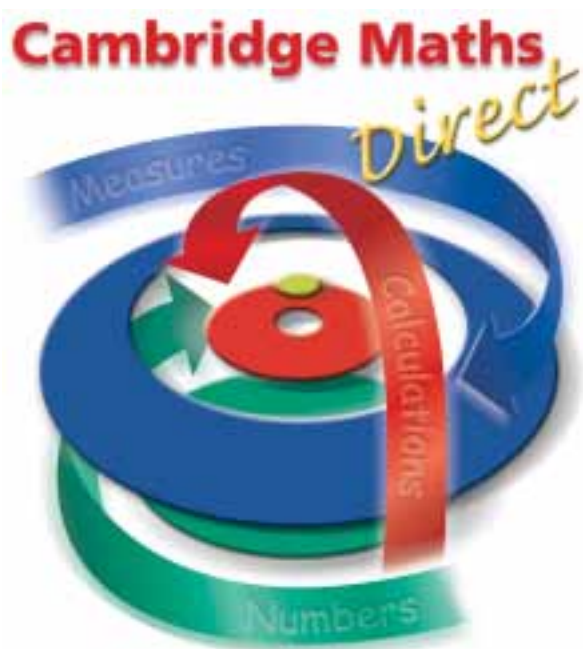
Available now



See page 19 >>>>

Numeracy in 2003

Cambridge Maths Direct



Our complete maths programme.

Now fully published from
Reception to Year 6



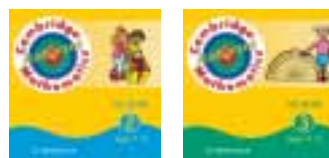
See pages 8–19 >>>>

Cambridge Maths Assessment CD-ROMs



Simple-to-use
tools for testing
and assessing maths progress.

Available now



See page 23 >>>>

Apex Maths

YEARS 2, 5 & 6
PUBLISHED
FEBRUARY

YEARS 1, 3 & 4
PUBLISHED
MAY

Extension *for all* through problem solving

With the setting of new targets for 2004, boosting pupils' attainment is more important than ever. *Apex* offers a new kind of extension resource. Through a series of stimulating problems, it stretches the attainment of every child, allowing them to explore solutions in line with their ability. The series provides 30 carefully differentiated problems for each year, which can fit naturally into your maths planning.

The Author Team



Ann has over 30 years' experience as both teacher and headteacher in rural Worcestershire and is Principal Lecturer in Primary Education at University College, Worcester. When not busy writing teaching materials, Ann can be found flying kites!

Specialising in primary maths, Paul has taught and been headteacher in schools across the UK. An experienced educational author (*Nelson Maths*, *Maths 2000*), Paul has also lectured on PGCE and BEd courses and written for the TES.

Apex Maths:

- Is for all pupils aged 5–11
- Extends and enriches through problem solving
- Stretches to Level 5 and beyond
- Is designed to develop thinking skills
- Provides 3 levels of differentiation
- Allows teachers to plan so that all pupils can be included
- Covers *all* problem-solving objectives
- Includes background mathematical support

Components

- **Years 2–6/P3–7**
Teacher's Book (includes copymasters) and Pupil's Textbook for each year
- **Year 1/P2**
Teacher's Book only (includes copymasters)



Focus on Thinking Skills



EXTENSION FOR ALL THROUGH PROBLEM SOLVING

Your Next Step...

➔ EVALUATION

Apex Pupil's Textbooks and Teacher's Books are available on approval. To order use the order form or reply-paid card (centre pages).

➔ ORDERING

📦 Post your order to us using the enclosed **FREEPOST** order form

☎ 01223 325588

📠 01223 325152

@ educustserve@cambridge.org

➔ DEMONSTRATION

The best way to evaluate Apex is to contact your Sales Consultant who can

- provide information and sample material
- talk you through the resources
- give a free, no-obligation demonstration to members of staff

Contact details page 25

EXTENSION FOR ALL THROUGH PROBLEM SOLVING



- Differentiation at 3 levels
- Clues and hints encourage children to think the problem through for themselves
- Red text indicates the practical apparatus needed
- Blue text should be copied into exercise books
- A glossary of key words aids understanding

3 How old is Granny?

Jan and Chris visited their Granny. It was her birthday. They took her some flowers and a card.



She gave them five clues. These were:

- 1 I am younger than 60 but older than 50.
- 2 If you add the digits of my age you get an even number.
- 3 Both the digits in my age are odd.
- 4 The two digits are different.
- 5 If you add the digits in my age you get a 2-digit number which has next-door digits.

Can you work out what the tens digit is? Look carefully at clue number one.

Now, try clue number 2. Which pairs of digits would fit?

Can you work it out?

How old do you think Jan and Chris are?

Make up some clues for their ages for your partner to work out.

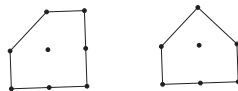
9 Dotty polygons

You need centimetre square dotty paper.

- 1 a Draw polygons that have only 1 dot inside them.

For each polygon:

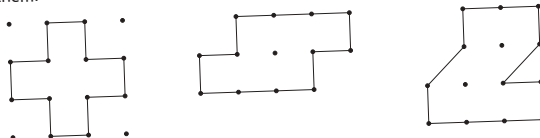
- find the area;
- count the number of dots on the perimeter.



Write the results by the shape.

- b Can you describe a relationship between the number of dots on the perimeter of each polygon and the area?
- c Investigate polygons with 2 internal dots in the same way.

- 2 Draw polygons with 12 perimeter dots that have 0, 1, 2, 3, 4, 5 dots inside them.



- a Is there a maximum number of dots that a polygon with 12 perimeter dots can have inside it? Investigate.
- b Can you find a relationship between the area of a polygon with 12 perimeter dots and the number of dots inside it? Can you write a formula?

Page from Year 2 Pupil's Textbook



Page from Year 6 Pupil's Textbook

Teacher's Books

- Teachers able to plan lessons so that all pupils can be included
- Easy-to-follow, step-by-step guidance for each problem
- Scope and sequence chart shows coverage of objectives and NC levels
- Mental maths bank specifically focuses on problem solving
- Background mathematical support aids teacher understanding

EXTENSION FOR ALL THROUGH PROBLEM SOLVING

Facsimiles of pupil's pages to help with planning

Charts link each activity to the Mathematics 5–14 National Guidelines for Scotland and the Lines of Development for Northern Ireland

Includes a detailed plenary for whole-class discussion

9 Dotty polygons

Minimum prior experience
areas of shapes on a grid of centimetre squares

Resources
Pupil's Textbook page 14, PCM 4, large 'write on-wipe off' dotty grid (optional), centimetre square dot paper, pinboards and elastic bands (optional)

Key vocabulary
area, polygon, perimeter, internal, relationship, formula, general statement, prove

What's the problem?
Investigations into the relationship between the areas of shapes drawn on square dotty paper and the number of internal and perimeter dots. There is the opportunity to express relationships as formulae.

Problem solving objectives

- Explain methods and reasoning, orally and in writing.
- Solve mathematical problems or puzzles, recognise and explain patterns and relationships, generalise and predict. Suggest extensions asking 'What if...?'
- Make and investigate a general statement about familiar numbers or shapes by finding examples that satisfy it.
- Develop from explaining a generalised relationship in words to expressing it in a formula using letters as symbols.

Differentiation

More able: Pupil's Textbook, page 14, problem 2
Average: Pupil's Textbook, page 14, problem 1 (simpler problem)
Less able: PCM 4 (similar problem to Average, but with step by step direction)

Introducing the problem
Revise the meaning of perimeter (distance around, or the boundary of, a 2-D shape) and area (the amount of space inside a 2-D shape).

Teacher focus for activity
All children: For children who think they have found a relationship, discuss how many shapes they think they need to investigate before they can confidently make a general statement. Can they ever be sure? Encourage them to test the relationship on 'unusual' examples.
More able: Can you prove that, for a shape with 12 dots on its perimeter, there either is or is not a maximum number of internal dots? (See Useful mathematical information, page 87)

Optional adult input
Work with the Less able group. Help children to calculate the fractional parts of areas, e.g. by viewing them as half rectangles.
The triangular part is the same as half of the rectangular part.
Area of rectangular part = 2 cm^2
So area of rectangular part = $\frac{1}{2}$ of $2 \text{ cm}^2 = 1 \text{ cm}^2$
So total area = $2 \text{ cm}^2 + 1 \text{ cm}^2 = 3 \text{ cm}^2$

Plenary
It would be useful to have on display a large square dotty grid on which shapes can be drawn and wiped off, e.g. an overhead projector acetate. Otherwise, dots can be drawn on the board for each shape.

Development
More able: Children investigate the relationship between area and the number of internal dots in polygons with different numbers of dots on the perimeter.
Average and Less able: Children investigate the relationship between area and the number of perimeter dots in polygons with 2, 3, 4... dots inside them.

Solutions
More able: (Problem 2)
a No, there is not a maximum number of dots.
b The area of a polygon with 12 perimeter dots is 5 more than the number of internal dots (or the converse): $A = d + 5$ or $d = A - 5$ where $A = \text{area}$ and $d = \text{the number of internal dots}$.

Average: (Problem 1)
a Children's own polygons; area and number of perimeter dots for 'unusual' polygons.
b For 1 internal dot: The area is half the number of perimeter dots (or the converse).
c For 2 internal dots: The area is half the number of perimeter dots plus 1 (or the converse).

Less able:
1a 3 cm^2 b 6 dots
2a 6 cm^2 b 12 dots
3a $3 \frac{1}{2} \text{ cm}^2$ b 7 dots
4a $5 \frac{1}{2} \text{ cm}^2$ b 11 dots
The area is half the number of perimeter dots (or the converse).

Can we be absolutely certain that this relationship will always apply to all polygons with one dot inside?
Discuss. Invite children to draw 'unusual' polygons with one dot inside to test whether the relationship still applies.
2 Focus on Textbook Page 14, problem 2.
Ask children from the More able group to describe their investigation and findings.
Can children say whether there is a limit to the number of internal dots for a polygon with 12 perimeter dots? Can they explain why (give 'tip' Discuss. See Useful mathematical information, page 87).
Discuss the relationship between the area of a polygon with 12 perimeter dots and the number of dots inside it. Children may have found that the number of square centimetres (area) is 5 more than the number of dots inside the polygon (or the converse).
Discuss how this relationship could be expressed as a formula: $A = d + 5$ or $d = A - 5$ where A is the number of square centimetres (area) and d is the number of internal dots.

Probing questions in the plenary help with short-term assessment

Spread from Year 6 Teacher's Book

Differentiation at 3 levels

Thinking skills developed through focused questioning

Copymasters

Some activities are on the copymasters, which are contained in the Teacher's Books

Dotty polygons

This shape has only 1 dot inside. The area of the shape is 4 cm^2 . It has 8 dots on the perimeter.

These shapes have only 1 dot inside. Underneath each shape write the area and the number of perimeter dots.

1. a _____ b _____

2. a _____ b _____

3. a _____ b _____

4. a _____ b _____

Draw your own shapes that have only one dot inside. Write the area and the number of perimeter dots.

Can you see a relationship between the area and the number of perimeter dots?

Page from Year 6 Copymasters



Cambridge Maths Direct

NOW PUBLISHED FROM RECEPTION TO YEAR 6

The respected name. The right solution

- A comprehensive maths programme for children aged 4–11
- Offers full support in planning, teaching and assessing the daily maths lesson
- Crammed with inventive activities, all clearly differentiated
- Provides a lively and rewarding maths experience for all

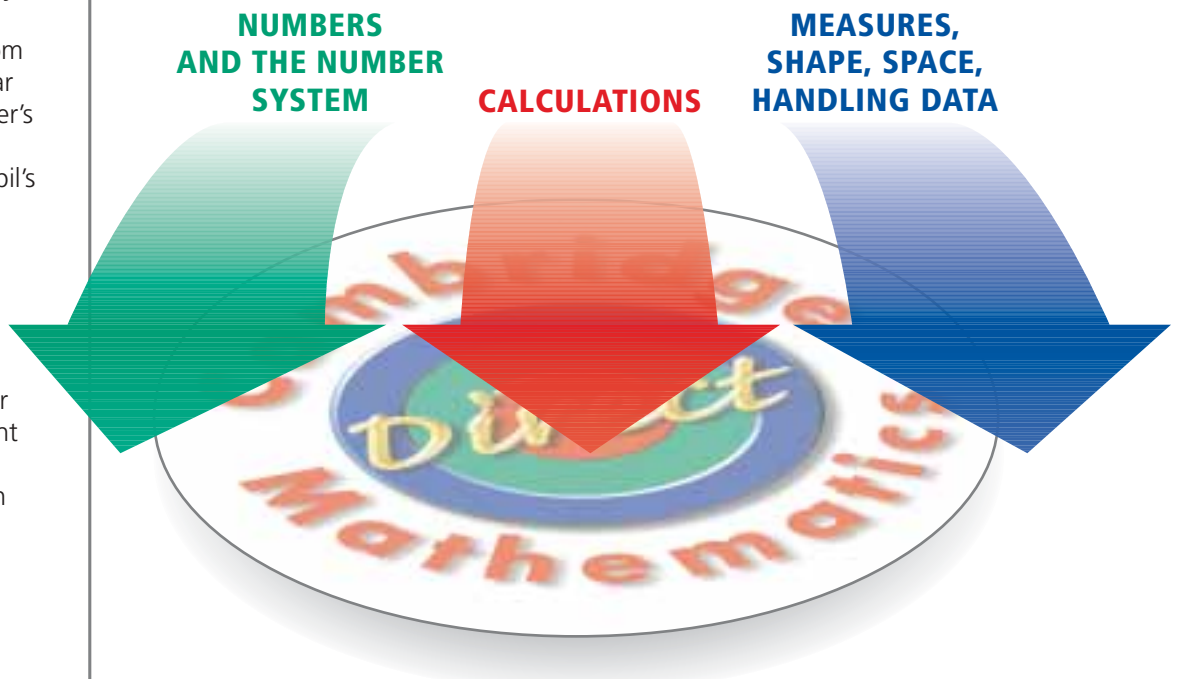
Taster Packs 35% discount

Try a CMD Taster Pack in school today – offering you an affordable way to try out the materials. Packs are available from any strand for any year and comprise a Teacher’s Book, Copymasters/ Activity Sheets and Pupil’s Textbooks (where available).

- Offer limited to one pack per school
- Firm order only
- Full details from your local Sales Consultant – see page 25, or complete and return the reply-paid card (centre pages)

Three strands for success

CMD offers you flexibility and support. Use it as a complete scheme or focus on just one of three strands. Problem-solving activities are provided within all three strands.



Strand-based resources to help you target key areas of maths

Our survey said ...



Teachers appreciate CMD! Here are some typical responses from our recent customer survey...

‘Easy-to-use during lessons – no bulky resources to take home for planning’

‘Its implementation is a piece of cake. Children enjoy the lessons and are well motivated’

‘I find suggestions for the mental starter, homework and plenary sessions very useful. The differentiation is a big help too’

‘I trust CMD to deliver the appropriate curriculum at the appropriate level. I can go straight to it’

‘Well written whole-class input – great ideas for use of language, modelling concepts, reinforcing ideas and also some useful plenary activities’

NUMBERS

CALCULATIONS

MEASURES, SHAPE, SPACE, HANDLING DATA



‘The pupils’ books are bright and child-friendly – with not too much work on the page’

‘Easy to manage and with excellent differentiation’

Component Chart

3 STRANDS FOR SUCCESS

NUMBERS AND THE NUMBER SYSTEM
INCLUDING SOLVING PROBLEMS

CALCULATIONS
INCLUDING SOLVING PROBLEMS

MEASURES, SHAPE, SPACE AND HANDLING DATA
INCLUDING SOLVING PROBLEMS

YEAR

YEAR

RECEPTION/P1

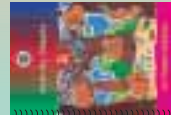
RECEPTION/P1



Autumn/Spring
£27.95
Teacher's Handbooks



Summer
£24.95
Teacher's Handbooks



Autumn/Spring
£29.95
Activity Sheets



Summer
£19.95
Activity Sheets



£69.95
(16 pics)
Interactive Pictures and User Guide



£9.50
Activity Sheets



£7.00 (pack of 10)
Handwriting
Workbook



£7.00 (pack of 10)
Maths Review
Workbook



£6.95
Assess and
Review Lesson Plans



£25.95
Teacher's Handbooks



£29.95
Activity Sheets

£69.95 (16 pics)

Interactive Pictures and User Guide



£27.50
Teacher's Handbooks



£29.95
Activity Sheets



£25.95
Teacher's Handbooks



£29.95
Activity Sheets

£9.50

Assess and Review Lesson Plans

Maths Review Workbook

£6.95



£25.95
Teacher's Handbooks



£29.95
Activity Sheets



£19.95
Activity Sheets



£27.50
Teacher's Handbooks



£29.95
Activity Sheets



£25.95
Teacher's Handbooks



£29.95
Activity Sheets

£69.95 (16 pics)

Interactive Pictures and User Guide

Maths Review Workbook

£6.95

Pupil's Textbook (Spring/Summer terms only)

£4.50

Assess and Review Lesson Plans

£6.95

AT EACH OF YEARS 3,4,5 AND 6/P4-7

All four years
£24.95



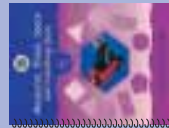
Teacher's Handbook

Y3-Y4 £4.00
Y5-Y6 £4.95

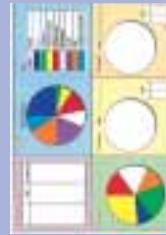


Pupil's Textbook

Y3-Y4 £22.95
Y5-Y6 £25.95



Copymasters



£34.95
(8 pics)

Interactive Pictures

Also available



Planning Packs – R–Y6 **Free**

Each pack contains:

- **Half-termly overview chart** – shows where CMD lessons fit in with the Framework's medium-term planning grids
- **Mixed-year linking grids** – links teaching objectives across year groups to help plan for mixed-age/ability classes
- **Classroom assistant's booklet** – helps you develop the role of support staff within the context of the daily maths lesson
- **Checklist of key objectives** – invaluable support for record-keeping

All four years
£29.95



Teacher's Handbook

All four years
£4.95



Pupil's Textbook

Y3-Y4 £22.95
Y5-Y6 £25.95



Copymasters



£69.95
(16 pics)

Interactive Pictures

Interactive Pictures User Guide £9.50

Y3-Y4 £21.95
Y5-Y6 £24.95



Teacher's Handbook

Y3-Y4 £4.00
Y5-Y6 £4.95



Pupil's Textbook

Y3-Y4 £22.95
Y5-Y6 £25.95



Copymasters

Solutions Books

(KS2 only)

➤ see order form

Cambridge Maths Assessment CD-ROMs

new

➤ see page 23

AT EACH OF YEARS 3,4,5 AND 6/P4-7



You want a resource that caters for the different abilities and starting points of Reception children. CMD offers you this flexibility.

Reception

RECEPTION



Our Reception materials are unique in offering different resources for Autumn/ Spring and Summer terms. This reflects the differing needs of children at this level and the requirements of the *Early Learning Goals*. The Reception material:

- Covers all three strands
- Gradually introduces pupils to the concept of a daily maths lesson
- Emphasises talking about and exploring maths through practical work and structured play
- Encourages home–school links through family activities

Teacher's Handbooks

Autumn/Spring Term

- Allows flexibility for the Reception teacher in the early part of the year through a pattern of starter lessons and follow-up lessons to dip into.
- Introduces direct teaching, differentiated activities and plenary
- Includes ideas for oral and mental, family and related play activities

RECEPTION

Summer Term

Organised in daily lesson plan format to ensure a smooth transition to Year 1.

Starter lesson Reception – Autumn/Spring

Handwriting Workbook

Children can practise the correct way to form numerals with this useful workbook.

Trace.



Other Reception components include:

- A1 size, write-on, wipe-off **Interactive Pictures** – see pages 14–15
- **Assess and Review materials** – see page 19

Spread from Handwriting Workbook

Interactive Pictures

WHOLE CLASS

- A1 laminated pictures packed with exciting maths ideas
- Encapsulated in durable plastic for a resource that will last and last
- Lots of opportunities to develop aspects of maths within the three strands
- Mathematical language and thinking developed
- Excellent for use with any maths programme



‘The Interactive Pictures provide an ideal opportunity for discussion, pupil involvement and visual stimulus for teaching and learning’

Lynda Keith,
Senior Lecturer in Primary Education,
University of Strathclyde

Reception/P1	Year 1/P2	Year 2/P3
3 of 16	3 of 16	3 of 16

User Guides



- Accompanying teacher's notes available for all years
- Focus on oral and mental work and whole-class direct teaching
- Suggestions on how to work effectively with support staff
- Lots of ideas for creating stimulating maths display boards

WHOLE CLASS

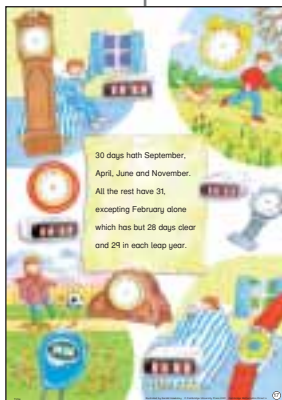
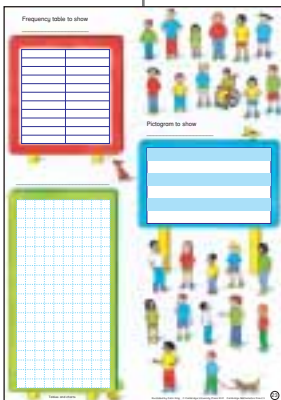
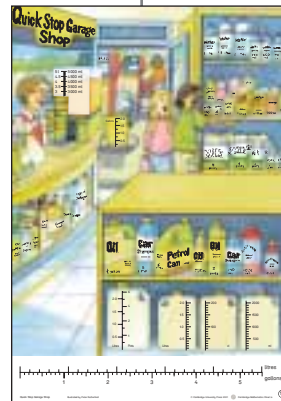
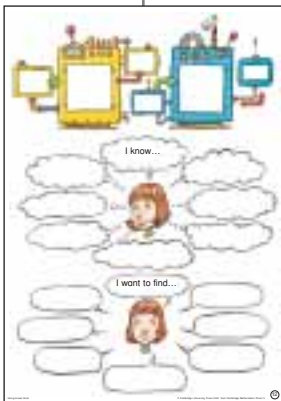
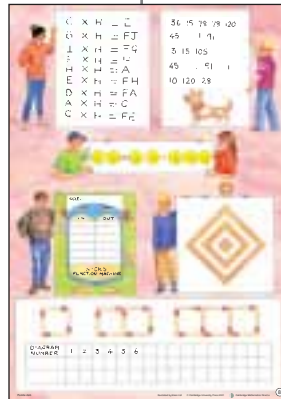


Year 3/P4

Year 4/P5

Year 5/P6

Year 6/P7



3 of 24

3 of 24

3 of 24

3 of 24

PLANNING

TEACHING

Objectives – matched to NNS Framework

Key words – taken from the NNS Mathematical Vocabulary book

Key idea – this is to share with the pupils as the focus for the lesson

Teaching model – a suggestion as to how the lesson could be organised

MD2 Using known multiplication facts

Multiplication and division 2.4 Using multiplication facts 1

Objectives

- understand and use the distributive law of multiplication
- understand and use the associative law of multiplication
- use a combination of strategies to work out multiplication facts

Key idea We can use many strategies to work out multiplication facts we don't know from facts that we do know.

Teaching model

Introduction		
Main teaching activity		
Direct teaching		
Pupil activities		
LEAST ABLE	MIDDLE ABLE	MOST ABLE
* Find	A Independent	B Find
A Find	B Teacher-led	C Find
Plenary		

Key words multiply, times, product, double, twice, order

You need IP 5, SC 57, CM 30

place value cards for all 0-100 number lines (CMs 63, 64) and cubes for support

Introduction: oral work and mental calculation
about 10 minutes

Play 'Doubling chains': Call out a number and children show the double with place value cards. Then they double it again. The chain can be any length, depending on their skill.

- Use 2, then 20 as a starting number.
- Use 5, then 50 as a starting number.
- Discuss why some numbers are very easy to double. Identify patterns.

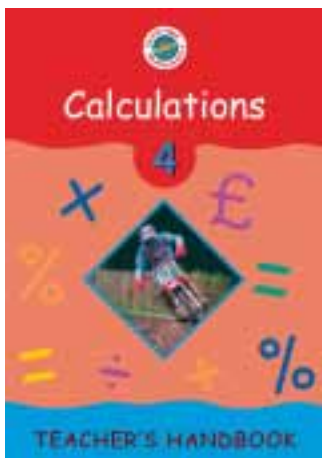
2. What can you do if you can't remember a multiplication fact quickly, e.g. 6×67 ? Discuss suggestions. Look for 'double 6×3 ', $18 \times 4 + 16 \times 2$, ... Continue with, e.g. 8×5 (half 8×10), 4×7 (7×4 or double double 7), 6×9 ($6 \times 10 - 6 \times 1$), ...

Main teaching input and pupil activities

Direct teaching
about 15 minutes

- Use IP 5.
We're going to practise using multiplication facts we know. Ask simple questions to 5×5 based on IP 5, e.g.
 - There are 5 people in each yacht in the race. How many in 4 yachts?

132



Direct teaching – the whole-class introduction to the lesson. Teachers can select the most appropriate parts for their class

Optional adult input – this indicates where and how a classroom assistant or other adult could be best used

Pupil activities – these are differentiated into four stages – **Support, Core A, Core B and Extension**

3. What can you do if the numbers are larger than 20 (e.g. 50×8)? Discuss suggestions. Look for ' $8 \times 5 = 40$ ' or 'double, double double 50'.
4. Ask volunteers to pose questions to the class based on IP 5. They must be able to give the answer and explain the strategy they used.

Pupil activities

about 25 minutes
CORE

A Independent TB page 56

Children are helped to use multiplication facts they know to find others, and solve problems.

B Teacher-led TB page 57

A full range of multiplication facts is used and applied to solving problems.

SUPPORT * Teacher-led TB page 56

Children practise facts to $\times 5$ and apply commutativity and doubling. Encourage them to use apparatus or a 0–100 number line if they need to.

EXTENSION C Independent TB page 57

Children solve missing number problems and explain strategies. They develop their own problems for a partner to solve.

Optional adult input to groups

Core A: Encourage children to apply the strategies suggested and check by an equivalent calculation.

Extension: Help children who need it to explain their strategies.



Plenary

about 10 minutes

Key idea We can use many strategies to work out multiplication facts we don't know from facts that we do know.

1. Ask children who did * to talk about what strategies they used to find facts they didn't know.
2. Discuss and solve some of the problems from C.
3. Adapt CM 30 and play 'Four in a row' in 2 teams, e.g. use $\times 7$, $\times 9$ and appropriate multiples in the grid.

Homework suggestion

Ask children to choose and learn 6 multiplication facts they do not know.

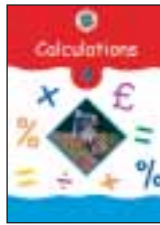
Daily lesson plan Year 4 Teacher's Handbook – **Calculations**

Plenary – ideas for short-term assessment

Helping schools plan their coverage of the Framework is a key part of Cambridge Maths Direct. Support for short, medium and long term planning is provided through the daily lesson plans in the Teacher's Handbook and the Framework matching charts and mixed year linking grids in the free Planning Packs. CMD is flexible enough to provide a close match, whatever plan or scheme of work you're following.

Homework suggestion – the work does not depend upon this being done. It is there to use if you wish

PLANNING
LEARNING



By providing a rich variety of activities with full colour illustrations, CMD fuels pupils' interest and enthusiasm for maths. Group, paired and individual activities are clearly differentiated. Coloured bands show which activities are teacher-led (red) and which are independent (green).

MD2.4 Using multiplication facts 1

MD2.5 **1p or 10p more or less**

MD2.6 **Numbers between**

MD2.7 **Four in a row**

MD2.8 **Calculations**

MD2.9 **Calculations**

MD2.10 **Calculations**

MD2.11 **Calculations**

MD2.12 **Calculations**

MD2.13 **Calculations**

MD2.14 **Calculations**

MD2.15 **Calculations**

MD2.16 **Calculations**

MD2.17 **Calculations**

MD2.18 **Calculations**

MD2.19 **Calculations**

MD2.20 **Calculations**

MD2.21 **Calculations**

MD2.22 **Calculations**

MD2.23 **Calculations**

MD2.24 **Calculations**

MD2.25 **Calculations**

MD2.26 **Calculations**

MD2.27 **Calculations**

MD2.28 **Calculations**

MD2.29 **Calculations**

MD2.30 **Calculations**

MD2.31 **Calculations**

MD2.32 **Calculations**

MD2.33 **Calculations**

MD2.34 **Calculations**

MD2.35 **Calculations**

MD2.36 **Calculations**

MD2.37 **Calculations**

MD2.38 **Calculations**

MD2.39 **Calculations**

MD2.40 **Calculations**

MD2.41 **Calculations**

MD2.42 **Calculations**

MD2.43 **Calculations**

MD2.44 **Calculations**

MD2.45 **Calculations**

MD2.46 **Calculations**

MD2.47 **Calculations**

MD2.48 **Calculations**

MD2.49 **Calculations**

MD2.50 **Calculations**

Spread from Pupil's Textbook Year 4 – Calculations

Spread from Pupil's Textbook Year 2

Activity Sheets/Copymasters

Four in a row

Rules

- Take it in turns to multiply any number by 2 or 3 to make a product that is in the square.
- If you are correct you may cover that square with a counter.
- Play until you are left to cover four in a row.

Copymaster Year 4 Calculations

Additional practice and reinforcement of key maths skills, including:

- Lesson support sheets for whole-class, core, support or extension work
- Opportunities for assessment
- General resources – number lines, hundred squares



Assessment

Daily Assessment

Daily assessment is covered in the plenaries, which provide activities and questions to help identify children's misconceptions.

Medium-Term Assessment

At Key Stage 1

Following the recommendations of the NNS, our Assess and Review Lesson Plans provide structured assessment of children's progress against key objectives. Recording can be done using the Maths Review Workbooks.

At Key Stage 2

Ideas are provided in the Teacher's Handbooks which can be incorporated into the lessons at the end of each half term. These focus not only on the answers, but on how pupils arrive at these.



Page from Maths Review Workbook Reception



Record Keeping

A checklist for record keeping is included in the free Planning Packs for each year.

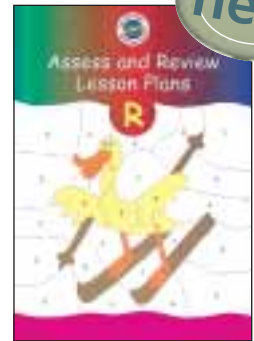
Cambridge Mathematics Direct		NAME
Class Record 3		
<p>Key Objectives</p> <p>Read, write and order whole numbers to at least 1000; know what each digit represents.</p> <p>Count on or back in tens or hundreds from any 2- or 3-digit number.</p> <p>Recognise and describe basic 2D, 3D, 1D, 2D, 3D, 1D, 2D and use them to find fractions of shapes and lengths.</p> <p>Know by heart all addition and subtraction facts for each number to 20.</p> <p>Add and subtract mentally 4 times multiple of 10 to or from a 2-digit number.</p> <p>Know by heart facts for the 2, 5 and 10 multiplication tables.</p> <p>Understand division and recognise that division is the inverse of multiplication.</p> <p>Use 90% of time and know the relationship between mass, length, volume, mass, area, money, year.</p> <p>Understand and use E₆ notation.</p> <p>Choose and use appropriate operations (including multiplication and division) to solve word problems involving money and length.</p> <p>Identify right angles.</p> <p>Identify lines of symmetry in simple shapes and recognise shapes with no lines of symmetry.</p> <p>Solve a 5-bar problem by organising and interpreting contextual data in a simple bar chart and graph.</p>		
<p>Cambridge Mathematics Direct Class Record 3 © Cambridge University Press 2020</p>		

Year 3 Planning Pack Class Record Sheet



ASSESSMENT

new



Assess and Review Lesson Plans and Maths Review Workbooks

Reception and Key Stage 1 Available now

Your Next Step...

→ ORDERING



Post your order to us using the enclosed **FREEPOST** order form



01223 325588



01223 325152



educustserve@cambridge.org

→ DEMONSTRATION

The best way to evaluate *Cambridge Maths Direct* is to contact your Sales Consultant who can:

- provide information and sample material
- talk you through the resources
- give a free, no obligation demonstration to members of staff

Contact details page 25

Activity and Resource Books

Equipment from **BEAM**



For teaching accessories to support *Cambridge Maths Direct*, look no further than BEAM. BEAM provides all the equipment you need to deliver a daily maths lesson with *Cambridge Maths Direct*, including Grids, Number Cards, Number Lines and Dice.

To order BEAM's resources for *Cambridge Maths Direct*, contact:

BEAM Education, Maze Workshops,
72a Southgate Road, London N1 3JT

Enquiries: 020 7684 3323

Orders: 020 7684 3330

www.beam.co.uk

Cambridge University Press in association with **BEAM**

ACTIVITY AND RESOURCE BOOKS

Feedback from Cambridge/BEAM Summer Workshops

'some good ideas to
take back and try'

'thought-provoking'

'a great opportunity to
learn and share ideas
with others'

'down-to-earth
presentations and
useful activities'

Look out for
details of future
Cambridge/BEAM
workshops

Your Next Step ...

→ ORDERING



Post your order to us
using the enclosed
FREEPOST order form



01223 325588



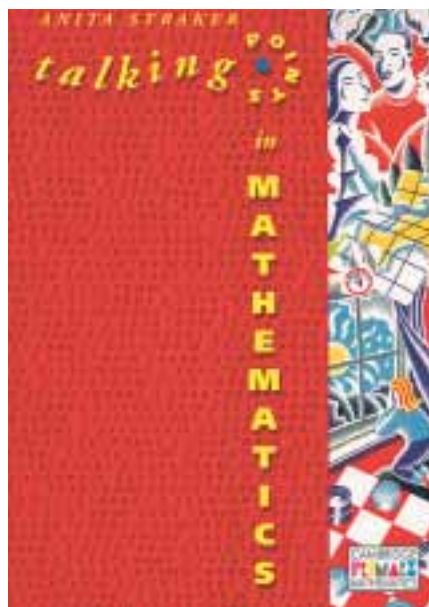
01223 325152



educustserve@cambridge.org

Everybody's talking about ...

Talking Points in Mathematics



Anita Straker

Could an elephant walk through the door of the classroom? How long is the swimming pool in pencil lengths?

The lively discussion topics in *Talking Points* get children thinking and talking about maths. Each topic provides a stimulus for class discussion, developing children's use of mathematical vocabulary, imagery and mental strategies. Each talking point is described in full, with suggestions for questions, vocabulary, class organisation and how to follow up.

0 521 44758 5 | 124 pp. | Paperback | £13.00

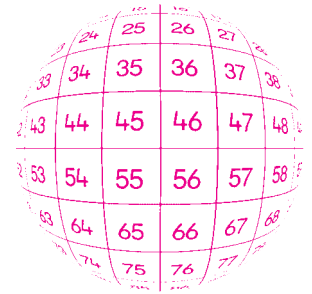
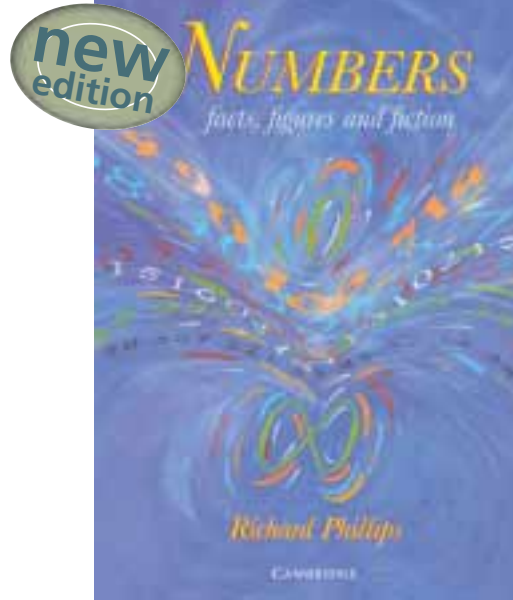


Numbers: Facts, Figures and Fiction

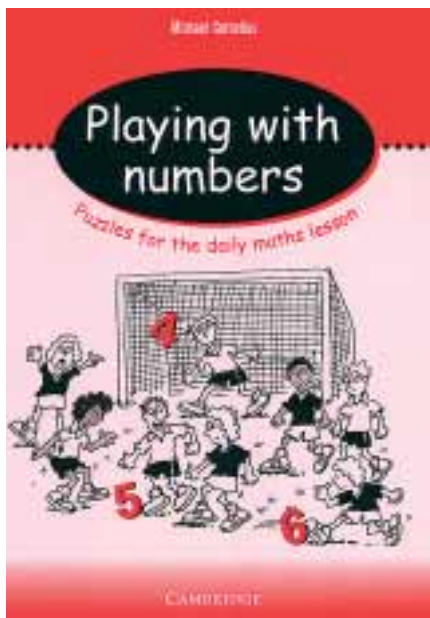
Richard Phillips

Ever wondered how 7-UP got its name, or what you would measure in oktas? Discover the answers in *Numbers: Facts, Figures and Fiction*. Full of mathematical and cultural facts, tantalising problems and anecdotes, *Numbers* provides masses of ideas for teaching, project work, or displays, and makes an intriguing library resource.

0 521 46481 1 | 96 pp.
Paperback | £11.95
Available Spring 2003



ACTIVITY AND
RESOURCE
BOOKS



Playing with Numbers

Michael Cornelius

Puzzles for the daily maths lesson

Inspiring games, puzzles and activities to enrich your daily maths lesson. Learning objectives for each game are linked to the Framework. Answers included.

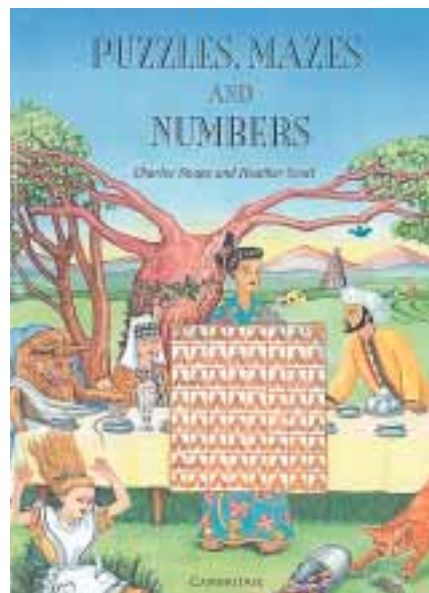
Photocopiable | Wiro bound | 0 521 59896 6
72 pp. | £31.95

Puzzles, Mazes and Numbers

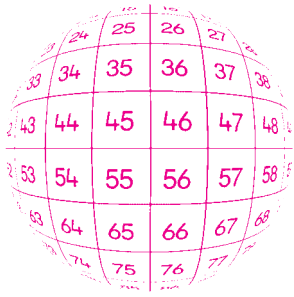
Charles Snape and Heather Scott

A collection of problems, puzzles and investigations exploring the history of mathematics, mazes and the development of numbers.

0 521 46500 1 | 128 pp. | Full colour | Hardback
£15.50



Activity and Resource Books



ACTIVITY AND
RESOURCE
BOOKS



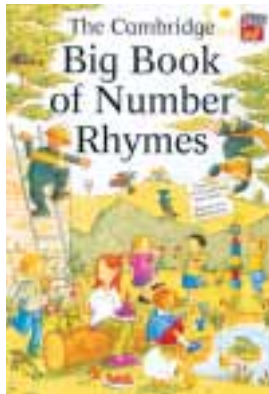
Seven Dizzy Dragons

A lively collection of new and traditional rhymes designed to help children memorise key maths concepts. There are action songs, chants and mantras for learning tables, as well as rhymes to practise number bonds and days of the week.

0 521 49794 9 | 32 pp.
Paperback | £9.50



A full list of other maths stories and rhymes can be found at
www.cambridge.org/education/primary/cmd/teachersresourcebox



Cambridge Number Rhymes

- Support for the Early Learning Goals
- Help pupils to recognise numerals
- A fun way to introduce mathematical vocabulary

Cambridge Big Book of Number Rhymes/Cassette Pack

0 521 00221 4 | 16 pp. | Paperback | Illustrated | £27.30

Children's Books – Packs of Six

Each book: 8 pp. | Paperback | Illustrated | £10.75

Your Next Step...

→ ORDERING



Post your order to us using the enclosed **FREEPOST** order form



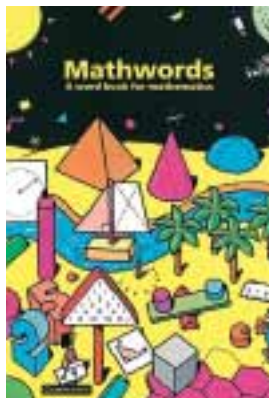
01223 325588



01223 325152



educustserve@cambridge.org



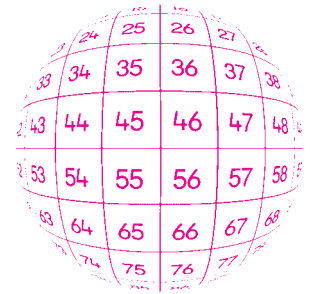
Mathwords

Language Studies Centre

A primary maths picture dictionary with index. Words and phrases are placed in context to enhance pupils' understanding.

0 521 45527 8 | 64 pp.
Hardback | £12.75





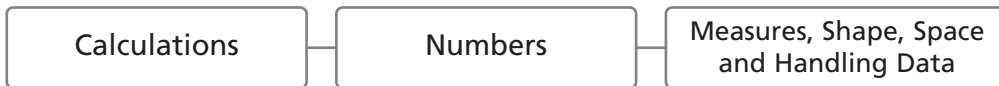
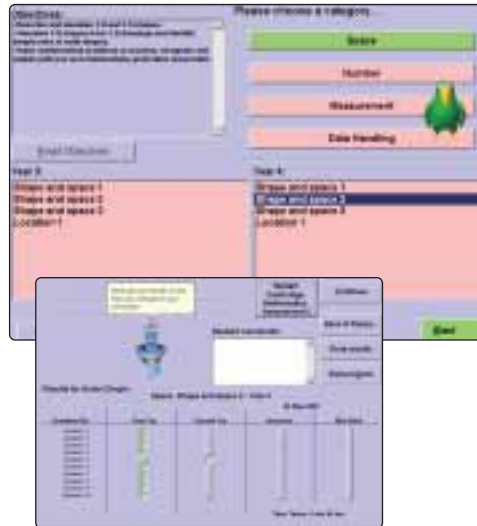
Cambridge Maths Assessment CD-ROMs

Ages 5–11



By providing graded maths tests, in a fun interactive format, our CD-ROMs offer an invaluable tool for mathematical assessment that children will love using.

- Pupils' ability tested in all areas of mathematics
- Pupil performance records can be saved and printed out
- Written and spoken instructions support understanding
- Easy to use – just point and click
- Pupil-centred – ideal for self-assessment



E-LEARNING

PC ONLY

1 – Ages 5–7

Single user 0 521 89208 2 | £59
Extra user 0 521 89209 0 | £10

2 – Ages 7–9

Single user 0 521 89212 0 | £59
Extra user 0 521 89211 2 | £10

3 – Ages 9–11

Single user 0 521 89213 9 | £59
Extra user 0 521 89214 7 | £10

A licence is required to use this product on a network of computers. Please contact Education Marketing on 01223 325914

Home Maths

Anita Straker

- Hundreds of imaginative homework ideas by the bestselling author of *Mental Maths*
- Focus on numeracy and developing mental maths
- Suitable for pupils aged 6–11

– Copymasters

48 pp. | Wirebound | Illustrated | £22.95 – £28.50

Also available as Pupil's Books (see order form for details)

– Teacher's Book

0 521 65947 7 | 112 pp. | £22.95

Available while stocks last

– Answer Book

0 521 64921 8 | 48 pp. | Paperback | £5.60

Mental Maths

Anita Straker

- The leading mental maths resource in UK schools
- Pupils' mental skills developed in a variety of inventive ways
- Suitable for pupils aged 5–11

– Pupil's Books

32 pp. | Paperback | Illustrated | £3.50

– Teacher's Books

72 pp. | Wire bound | Illustrated | £20.50

– Answer Book

0 521 58929 0 | 32 pp. | Paperback | £6.00



Now you can access Anita Straker's activities online at

www.bgfl.org/cambridgehomemaths

This service has been developed by the Birmingham Grid for Learning and Netmedia Education in conjunction with Cambridge University Press.

Index

A

Activity and Resource Books 20–23
Apex Maths 4–7
 Assessment 19, 23

B

BEAM 20

C

Cambridge Number Rhymes 22
Cambridge Maths Assessment CD-ROMs 23
Cambridge Maths Direct 8–19

H

Home Maths 23

I

Interactive Pictures 14–15

M

Maths Rhymes and Songs 22
Mathwords 22
Mental Maths 23

N

Numbers: Facts, Figures and Fiction 21

P

Playing with Numbers 21
Puzzles, Mazes and Numbers 21

S

Seven Dizzy Dragons 22

T

Talking Points in Mathematics 20

www.cambridge.org/education/primary

Make sure you visit our Primary website! Here you will find all the essential information for exciting new products as well as our top-selling literacy and numeracy resources.

Take advantage of the FREE teacher support materials available. All the documents are free, downloadable, photocopiable and ready for use in the classroom.

Cambridge Sales Consultants

Our professional team of Sales Consultants will be happy to talk you through our resources, provide up-to-date information or sample material, and prepare an individualised quotation. This service is **free of charge, entirely without obligation** and our Sales Consultants do not receive commission. Our Consultants will be happy to visit your school at a time convenient to you and your colleagues.

To make an appointment contact your local Sales Consultant direct or phone our Education Information Line on 01223 325013.



PRIMARY SALES MANAGER

Karen Griffith
phone/fax 0151 3422 677
mobile 07774 239142
email kgriffith@cambridge.org

1 Bournemouth, Bracknell, Bracknell Forest, Brent, Cornwall, Devon, Dorset, Ealing, Guernsey, Hammersmith and Fulham, Hampshire, Hillingdon, Hounslow, Isle of Wight, Isles of Scilly, Jersey, Kensington and Chelsea, Kingston, Plymouth, Poole, Portsmouth, Reading, Richmond, Slough, Southampton, Surrey, Torbay, W. Berkshire, Windsor and Maidenhead, Wokingham
Jennifer Lister
phone/fax 01730 265775
mobile 07774 239112
email jllister@cambridge.org

2 Bexley, Brighton and Hove, Bromley, Croydon, East Sussex, Greenwich, Kent, Lambeth, Lewisham, Medway, Merton, Southwark, Sutton, Wandsworth, West Sussex
Jo Haines
phone/fax 01342 326585
mobile 07774 239108
email jhaines@cambridge.org

3 Bath and NE Somerset, Blaenau Gwent, Bridgend, Bristol City, Caerphilly, Cardiff, Carmarthenshire, Ceredigion, Glamorgan, Gloucestershire, Herefordshire, Merthyr Tydfil, Monmouthshire, Neath Port Talbot, Newport, North Somerset, Oxfordshire, Pembrokeshire, Powys, Rhondda Cynon Taff, Somerset, South Gloucestershire, Swansea, Swindon, Torfaen, Wiltshire
Jeremy Warner
phone/fax 01453 791499
mobile 07774 239104
email jwarner@cambridge.org

4 Barking and Dagenham, Barnet, Bedford, Bucks., Cambs., Camden, City of London, Enfield, Essex, Hackney, Haringey, Harrow, Havering, Herts., Islington, Luton, Milton Keynes, Newham, Norfolk, Peterborough, Redbridge, Southend, Suffolk, Thurrock, Tower Hamlets, Waltham Forest, Westminster
Elizabeth O'Flaherty
phone/fax 01277 821972
mobile 07774 239111
email eoflaherty@cambridge.org

5 Birmingham, Coventry, Dudley, Sandwell, Shropshire, Solihull, Staffordshire, Telford and Wrekin, Walsall, Wolverhampton, Worcestershire
Jennifer Miller
phone/fax 0121 355 8682
mobile 07774 239106
email jqm100@cambridge.org

6 City of Leicester, City of Nottingham, Derby City, Derbyshire, Leicestershire, Lincolnshire, Northants., Nottinghamshire, Rutland, Warwickshire
Sheila Lunn
phone/fax 01530 813716
mobile 07774 239097
email slunn@cambridge.org

7 Anglesey, Cheshire, Conwy, Denbighshire, Flintshire, Gwynedd, Halton, Knowsley, Liverpool, Manchester, Oldham, Salford, Sefton, St. Helens, Stockport, Stoke on Trent, Tameside, Trafford, Warrington, Wirral, Wrexham
Lynne Johnson
phone/fax 0151 422 0056
mobile 07774 239095
email ljohnson@cambridge.org

8 Barnsley, Bradford, Doncaster, Hull, Kirklees, Leeds, N. Lincs, N.E Lincs, Rotherham, Sheffield, Wakefield
Tracey Tucker
phone/fax 01226 790106
mobile 07747 018577
email ttucker@cambridge.org

9 Blackburn, Blackpool, Bolton, Bury, Calderdale, Cumbria, Lancashire, Rochdale, Wigan
Susan Peat
phone/fax 01539 532853
mobile 07774 239101
email speat@cambridge.org

10 Darlington, Durham, East Riding, Gateshead, Hartlepool, Middlesbrough, N. Tyneside, Newcastle, North Yorks, Northumberland, Redcar and Cleveland, S. Tyneside, Stockton on Tees, Sunderland, York
Jan Logan
phone/fax 01642 786909
mobile 07774 239094
email jlogan@cambridge.org

11 Scotland
Anne Maile
phone/fax 0131 312 7225
mobile 07774 239100
email amaile@cambridge.org

12 Northern Ireland
Brid Howard
phone/fax 028 9756 5126
mobile 07774 239109
email bhoward@cambridge.org

13 Isle of Man
Karen Griffith
phone/fax 0151 3422 677
mobile 07774 239142
email kgriffith@cambridge.org

14 Republic of Ireland
John Treacy
International Education Services
Weston Industrial Estate
Salmon Leap, Leixlip
County Kildare
phone 016210310
fax 013210188

New for 2003



Cambridge
Maths Direct

► pages 8 – 19



Apex
Maths

► pages 4 – 7

Cambridge University Press, part of the University of Cambridge, is a not-for-profit organisation dedicated to raising standards in education.

Ordering Information



Post your order to us using the enclosed order form



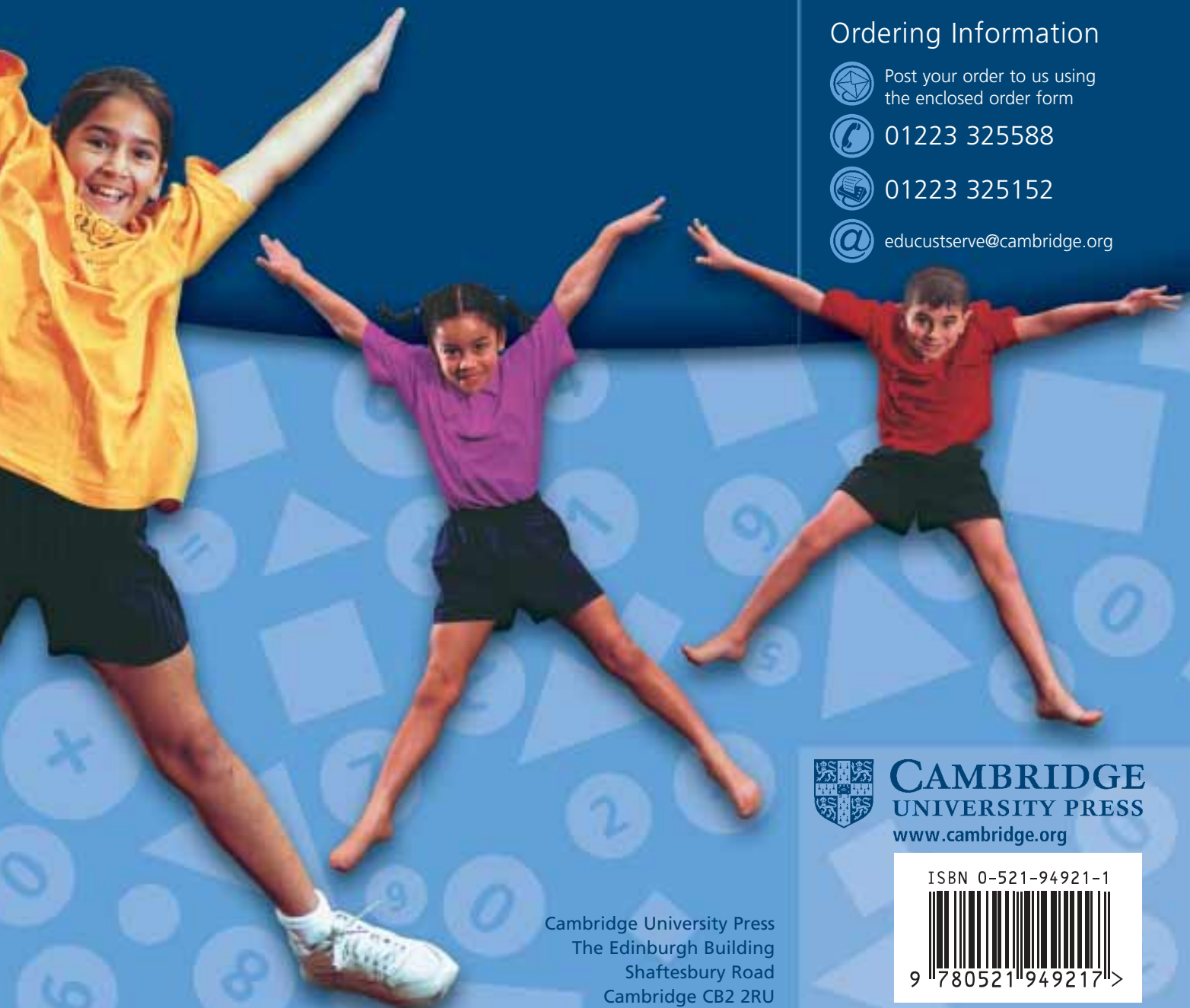
01223 325588



01223 325152



educustserve@cambridge.org



CAMBRIDGE
UNIVERSITY PRESS
www.cambridge.org

ISBN 0-521-94921-1



9 780521 949217 >

Cambridge University Press
The Edinburgh Building
Shaftesbury Road
Cambridge CB2 2RU