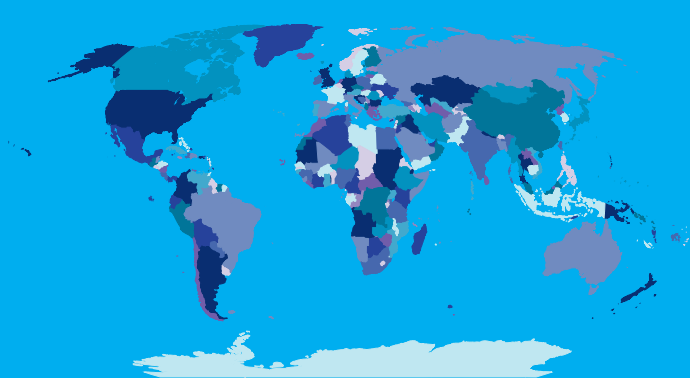# Maths
Takeaway

This month's special

Maths around the world

Did you know …

- The number system we use today comes from a Hindu-Arabic system, although the Babylonians and Mayans also seemed to use the idea of place value many hundreds of years before the idea came to Europe.

- Fibonacci introduced the system to Europe in the twelfth century, but it didn't become widespread for another three hundred years.

- Some languages only have words for one, two and many.

- Numerals (symbols) from various cultures look different, but all express the same number. All four of the symbols below are for the number zero. Left to right they are from Babylonia, China, India and Central America.

www.archimedes-lab.org/numeral.html

move up

QIA Quality Improvement Agency

Starters

Maths ideas and concepts we use today have come from all over the world.

Can you …

- use tally marks to keep track of numbers, perhaps when counting up for a survey?

- read Roman numerals on a clock or to see when a TV programme or film was made?

- use the number zero in the correct place when writing large numbers?

- line up numbers correctly underneath each other to do a calculation?

- know what order to put numbers and signs into your calculator and know if the answer is sensible?

You can check out your maths skills further by doing the mini-test at:

www.move-on.org.uk/testyourskills.asp

You can join a free group to improve your maths and gain a national qualification. Ask at the library, your local college or learning centre, ring 0800 100 900 or look on the Move On web site to find a local test centre.

Main course

Everything in the world of numbers had to be invented, even the numbers! Here are some highlights from the world history of maths …

12345 67890

- The oldest mathematical artefact is the Lemombo bone, dating from 35,000 BC, which was found in Swaziland.

- The calendar based on 365 days in a year was invented around 4,000 BC by the ancient Egyptians.

- The first recorded symbol for the number zero is attributed to the Babylonians in the third century BC.

- The Chinese invented negative numbers around 200 AD.

- In the tenth century, Arab mathematicians extended the decimal numeral system to include fractions.

- Decimal fractions were invented by Simon Stevin, a Flemish mathematician, in the sixteenth century.

Specials

How many different numbers can you divide exactly into 360?

Can you find 22 (plus one and 360 itself)?

The Babylonians used 360 days in a year as it was so much easier to divide into parts. From this they divided a circle or cycle into 360 degrees – which we still use today.

How many degrees:

- at the centre of half a circle?
- for a quarter of a circle?
- for an eighth of a circle?

How many other ways can you divide up 360 – perhaps as a pie chart?

The Babylonians also thought 60 was a very special number. We still use 60 seconds in a minute and 60 minutes in an hour.

Find out more at:

http://uk.encarta.msn.com/encnet/Features/Columns/?article=PowerofSix

Set menu

Test questions

(Some questions might have more than one correct answer.)

1 One thousand and twenty written in figures is:

a) 100020   c) 1002

b) 1020   d) 1200

2 A joint of meat weighs 2.054 kg. This is:

a) 2054 g   c) 200054 g

b) 2 kg 540 g d) 254 kg

3 The total of £1.60 + £12.05 + £0.23 is:

a) £1388   c) £14.86

b) £59.65   d) £13.88

4 You want to find the cost of eight tickets at four pounds and five pence each. Which of these could you key into your calculator to give you the correct answer?

a) $4 . 5 \times 8 =$

b) $4 . 0\, 5 \times 8 =$

c) $8 \times 4 . 0\, 5 =$

d) $8 \times 4 + 8 \times 5 =$

If you would like to try more questions, log on to the Learner Route at www.move-on.org.uk.

Extras

Grin or groan?

Try saying this tongue twister: 'The sixth sick sheik's sixth sheep's sick.'

Abacus or calculator – which is quicker?

Follow this link to look at Japanese children showing just how quickly they can use an abacus:

www.youtube.com/watch?v=wIiDomIEjJw

Learn how to do it yourself at:

www.youtube.com/watch?v=CvsnftXXKdw&feature=related

Resources for tutors

Resources are available to download from www.move-on.org.uk. Register on the site to access the Move Up Teacher Route at www.move-on.org.uk/mu_route.asp.

Find interesting information for tutors about number systems at: www.lsbu.ac.uk/numeracy/docs/Training_Booklet_1-Number_and_Numeric_Operations.pdf