

Easiteach Maths

Easiteach Maths is a whole-class teaching service to help teachers deliver the Daily Mathematics Lesson. It consists of a teaching tool (software) full of familiar and flexible Maths resources – such as number lines, grids and place-value cards – plus an online collection of teaching activities, each with a detailed set of teachers' notes, for use with the teaching tool.

The teaching tool is designed to be used with a projector and interactive white board, but can also be used with a number of other whole-class teaching technologies (such as Mimio, or a projector, large-screen TV or extra-large monitor along with a graphics tablet or infra-red remote keyboard), or even an ordinary PC. This last solution is not as good, but I'd hate to deter schools from subscribing to the service because they have not yet got an interactive

whiteboard. (Make a note to save up for one.)

The teaching tool can be installed on a Windows standalone PC, RM SchoolShare System or peer-to-peer workgroup. I installed it on a standalone PC, a simple process; in fact almost everything about this software is very intuitive, making it an ideal purchase for schools, as it is non-threatening even for the most timid user of technology. The teaching tool comes with a clearly written and clearly illustrated Teachers' Guide taking users through the main points of the teaching tool and simple troubleshooting points.

The specific maths resources presently within the teaching tool are number grids, number lines, function machines and place value cards. Teachers can customise the number grids and number lines to suit the needs of their classes. In addition there is a

fractions tool, and again teachers can create their own less common ones to reinforce equivalence or to challenge more able pupils. An option to have two functions on the function machine would perhaps have added to its versatility, but that is just a very minor quibble.

In addition to the maths resources there are sets of picture resources that can be placed anywhere on the screen. They include coins, toys, transport, numbers, and shapes that come in a choice of three sizes. Some of the pictures are digitised photographs (money, toys and food), allowing realistic and more appealing activities to be created for pupils. The coins are generally very realistic, although on my screen the £2 coin looks a little small in relation to the others. Teachers can annotate screens using text (added features in here too), numbers, arrows, and highlights in different colours. Thus it is possible to create activities such as a toyshop scenario, giving each toy a price and putting a selection of coins on screen for payment. Rectangles and circles of different sizes can be drawn on screen and are useful for covering other objects, for example masking the function on the function machine.

The online collection of teaching activities (at www.easiteach.com) is designed both to save teachers valuable time during planning and give them access to best-practice methods of teaching particular maths objectives. The activities are written by RM curriculum experts and also by several of the leading maths scheme publishers. Members of the Easyteach Maths service can search the website for suitable whole-class teaching activities, download them and print the teachers' notes as a guide to delivering the lesson.

Each activity can be viewed fully before downloading, and includes the following information in the teachers' notes:

- Full National Numeracy Framework and Scottish Guidelines referencing
- Referencing to paper-based maths schemes, where appropriate
- A view of every page of the activity file
- Educational advice on how to deliver the activity in the lesson
- Effective questions to use with pupils
- Key vocabulary
- Ideas for activity extensions
- Advice on conducting the plenary session

Should teachers wish to use their own creative abilities to produce activities around objectives not yet catered for on the website, the teaching tool allows them to prepare and save their own original activities, up to six pages in length. Each page can be printed out, so that the children's activity sheets match exactly what they have seen on screen, particularly useful for the very young.

A great deal of research and thought has gone into the development of this service, making it suitable for use throughout the primary phase.

This solution positively shrieks 'quality', and offers many hidden benefits: lessons can be fully interactive, generating more enthusiasm and enjoyment for many reluctant mathematicians. There is an increased potential for learning, as lessons integrate the visual, as presented by the technology and the auditory as provided by the teacher.

The annual subscription fee to the service is designed to be flexible, catering for schools' changing needs and also for schools of different sizes. The subscription fee enables:

- Every class in the school to use Easyteach Maths
- Teachers to install it on their computers at home to prepare lessons
- The online activities to be accessed and downloaded

Compare all this with the cost of buying just one CD-ROM for each class and I think you'll agree it is worth every penny. A school with under 200 pupils, for example, can become a member of Easyteach Maths for a year for just £295.

Karen Simeons, Easyteach Product Manager, said:

"One of the reasons for choosing a subscription-based model was so that we could evolve the product in dialogue with customers and allow Easyteach Maths users to reap the benefits instantly, without having to save some of the budget, remember to purchase, etc. the latest version of the teaching tool. The same goes for a school expanding their whole-class teaching technology – if a school gets another interactive whiteboard or equivalent, the current subscription model means they don't have to worry about purchasing extra licences."

RM recognises that Easyteach Maths could be expanded to deliver further aspects of the Maths curriculum, e.g. Shape, Space and Measure. There are also opportunities for Literacy and other aspects of the curriculum. Future development plans for Easyteach Maths include focusing very strongly on the provision of online activities matching NNS learning objectives, so that teachers can find relevant and best-practice activities with ease.

I'll leave the final word to Peter, a Year 3 teacher, not a noticeable technophile, who was happy to embrace this technology saying "I cannot think of a better way of demonstrating this point to my class."

System requirements

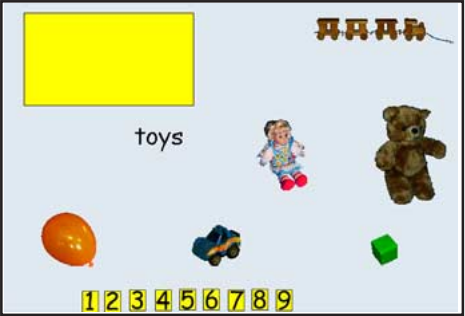
Windows 95, Windows 98 or Windows 2000 PC with a Pentium 166 processor, 32 MB RAM and 40MB of free hard disk space.

Further information

For more detailed information on prices and how to order, please call the RM Primary Information Line on 0870 908 6969 or e-mail the Sales team at salesdesk@rm.com.

Preface to activity ideas

The following activity ideas for Easiteach Maths have been produced by Rhona Dick and Peter Jarrett, to show how teachers can use the teaching tool creatively in their maths lessons. Ready-made Easiteach Maths activities, each accompanied by teachers' notes, can be downloaded by subscribers from www.easiteach.com where activities from RM and leading maths scheme publishers are provided on a term-by-term basis to meet Numeracy Framework objectives.

Into the Toy Box				
Year group	Reception	Easiteach tool(s)	Toys Garden	Numbers Cartoons
Objectives	Say and use the number names in order in familiar contexts (revise).			
	Count reliably up to 10 everyday objects. Recognise numerals 1–9.			
Key vocabulary	number, one, two . . . ten. how many, count.			
Advance preparation	Set up five pages with different numbers (< 10) and sizes of toys on each, randomly placed. Along the bottom of each screen put the numbers 1–9. In the top left hand corner put a yellow rectangle to represent the 'toy box'. Write 'toys' underneath. Set up page 6 with a pond and several ducks, fish and frogs.			
Resources	Coloured bags or boxes with different numbers of objects in each. Make sure every red bag has the same number of objects, every blue bag has the same number of objects etc. Several sets of cards numbered 1–9. Activity sheets showing bags or boxes. Crayons. Large die marked with numerals.			
Oral and mental work	Sing or say counting rhymes pointing to numbers on a number line as the numbers are said. e.g. One, two, three, four, five, once I caught a fish alive; One, two, three, four, Mary at the cottage door; One, two, buckle my shoe, three, four, knock at the door.			
Main teaching input and children's activities	Teaching input	Call up page 1. 'We are going to count the toys.' Use your finger to 'drag' the toys to the toy box, counting as you do so. 'How many toys are in the toy box?' If children are not sure, move each one slightly again as you count. Point to the numbers. 'Can someone show me the number of toys there are in the box?' Ask a volunteer to point to or 'drag' the number in front of the word 'toys'. 'There are six toys in the box.' Repeat for page 2. Call up page 3 and ask a child to come and count the toys. Repeat for pages 4 and 5.		
	Children's activities	Give each group a set of bags or boxes containing different numbers of objects. Children count out the number of objects in their bag and: 1. Put the matching number card on the bag. 2. Record tally marks or numbers using coloured crayons (to match the bag) on the activity sheet.		
Plenary	Ask for volunteers to bring up a bag (different colour each time). Take out the contents and ask the class to count the objects as the child hands them to you. Call up page 6. Throw the die and ask a child to come and put that number of ducks/frogs/fish on the pond while everyone counts. Clear the pond and repeat. Remind the children of what they have learnt today and make a link to your next lesson, if appropriate.			

<h1>Ordering fractions</h1>			
Year group	5	Easiteach tool(s)	Number line Fractions
Objectives	Order a set of fractions and position them on a number line. Use decimal notation for tenths ... Relate fractions to their decimal representations.		
Advance preparation	Page 1. A set of tenths fractions, randomly placed. One number line 0–1 step 0.1, numbers hidden, mark each end of this line. Page 2. As above but include a second number line 0–1 step 0.1 numbers visible. Page 3. A number line as above, numbers hidden, a set of some fractions with denominators of 10 and some with denominators of 100.		
Key vocabulary	Fraction, equal parts, mixed number, numerator, denominator, equivalent. One whole, half, quarter, tenth, hundredth. Decimal, decimal point, decimal fraction.		
Resources	Sets of fractions cards (differentiated) and number lines one between two, showing decimal equivalents. Crayons Hand held calculators		
Oral and mental work	Use this part of the lesson to rehearse and sharpen pupils' skills.		
Main teaching input and children's activities	Teaching input	Revise what the numerator and denominator of a fraction tell us. Call up page 1. Ask if anyone knows which is the smallest fraction they can see "How do you know?" Choose one of the other fractions (not 2/10). "This must be bigger." Ask someone to tell you one that comes between them. Begin to arrange the fractions in order. Continue until they are all ordered. Ask a child now to place them on the number line in the correct order. Call up page 2 and ask another child if they can remember where the fractions go on the number line. Replace them then relate the fractions to the decimal equivalents. Call up page 3. Explain that this time the line is divided into more small parts. "How many do you think there are?" Point to the different denominators in the fractions. Ask the children if they think 5/10 or 5/100 is bigger and why. Ask the children if they can place the fractions with denominators of 10 on the line. "Can anyone tell me how many little divisions there are between our fractions? So what part of the whole line is each little division?" Ask the children to position hundredths with multiples of 10 as numerators on the line. Ask if anyone can see anything interesting about the equivalent fractions. Ask a child to position the remaining fractions on the line. Ask which is the biggest, smallest fraction. "Can someone tell me a fraction that will come between them?"	
	Children's activities	Children work in twos, playing three in a line. The object of the game is to make three marks on a number line adjacent to each other. Pupils take it in turn to take a fraction card from the pile, say its decimal equivalent, and mark it on the number line. Opponents can challenge the equivalent and check using a calculator. This activity is differentiated by the complexity of the fractions, whether or not mixed or improper fractions are used, and the amount of information given on the number line.	
Plenary	Give each child a piece of card or paper and ask half of them to write a fraction, and half a decimal between 0 and 1 on it. Mark a numberline on the wall or board, (or tie a piece of string across the room marked in tenths). Ask children in turn to come and position their cards. Ask the remaining children one at a time to put their cards on the line. Remind the children that they have been learning about decimals and their equivalent fractions and if appropriate make a link to the next Mathematics lesson.		