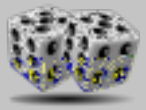
Maths Starters and Enders

	Calculator 	
		
		

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www.kent.ac.uk/careers/sk/top-ten-skills.htm

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[2] Bishop, A. (1991) , Dordrecht: Kluwer Academic Publishers

Think of a number you like / find interesting / really do not like.

Write it down.

Now think about what that number means to you / why you chose it. Personal stuff, mathematical stuff, personal mathematical stuff, whatever. Maybe it’s your birthday, the biggest prime number yet discovered, a useful irrational number, the biggest even number under 1 million, the number of the first house you lived

This activity will probably involve the Bishop ideas **C** and **M** .

187

348

9

3

128

347

This activity will probably involve the Bishop ideas **C** , **M** and **E**

Work with two teams. Teams can have one or more people; it doesn't really matter.

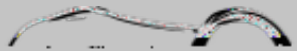
Pick a number – anything from 0 to 10,000. Tell the teams your number, and tell them that this is "the answer". Ask each team to write down what the question might be. Give them a time limit and challenge them to write down as many questions as possible. For example, if your number is 15, the "questions" might be "8 + 7" or "50% of 30" or "297 – 282" or "the length of a rectangle with area 30cm^2 and width 2cm". Tell the teams that they will be checking each (u) -0.2 ve1hms."qu((u) -0.) -0.2 (c ( ) 0.2 ki) -0.2 s

This activity will probably involve the Bishop ideas **C** , **D** , and **E**

Somebody offers you a job which will pay £1,000,000 for 20 days' work.

At the start of Day 1, they offer you a choice. You can have the £1,000,000 at the end of Day 1, or you can get paid £1 at the end of Day 1, £2 at the end of Day 2 and so on, doubling your pay each day. What will you choose?

Could you explain your thinking using a graph of some kind?



This activity will probably involve the Bishop ideas **C** , **M** , **L** , **D** , and **E**

You've got a jug that holds 5 litres and another that holds 3 litres. Could you use them to measure out 4 litres? You can fill either jug from a tap as often as you like.

Some more problems to try:

> Using these two jugs, could you measure out 1, 2, 6, 7 etc litres?
>
> You have four jugs of 9, 7, 4 and 2 litres capacity. The 9 litre jug is full of wine, the others are empty. Can you divide the wine into three equal quantities?

This activity will probably involve the Bishop ideas **C** and **E**

Bishop Ideas: This activity will involve **C** and **E**

one, two, three, four, five, six, seven, eight, nine, ten

één, twee, drie, vier, vijf, zes, zeven, acht, negen, tien

aon, dó, trí, ceathair, cúig, sé, seacht, ocht, naoi, deich

один, два, три, чотири, п’ять, шість, сім, вісім, дев’

In a group (this works best if you arrange yourselves in a circle or a line), in turn say the number “0” in whatever languages you know. Then go round again, with everybody saying the number “1” etc. Can you hear any similarities between the languages?

Move together with people whose number words sound most similar - you might be surprised by some of the connections. For example, some French and Italian number words sound fairly similar, as do Bengali and Irish number words. Any ideas about why this might be?

If you know how to write the numbers “0” to “10” in different scripts, make a list in your script and compare with other people’s scripts.

This activity will probably involve the Bishop ideas **C** , **M** , and **E**

1. 1 January 2006 was a Sunday. What day was 1 January 2007? 2008? 2009? When did 1 January fall on Sunday again?

2. One clock is running one minute per hour too fast. Another is running two minutes too slow. They are synchronised at noon on Sunday. How long will it take before one of them is an

Using the digits 1 to 9 once each, together with any symbols like +, x etc, can you make 100?

Spread the number cards out on the table to show your ideas to other people or to work with other people to find more solutions to this puzzle.

There are many solutions to this puzzle; how many can you find?

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This activity will probably involve the Bishop ideas **C** , **L** , **D** , **E**


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http://offender-learning.excellencegateway.org.uk/maths