



Collaborative Learning Project Quick Look!

Estimating Multiplication

This activity grew out of a concern that children were learning methods of dealing with big number multiplication, but were not really understanding how the numbers worked, and if they made a mistake with the calculation did not notice that they had come up with a 'right' answer that could be several noughts incorrect. We wanted children to cooperate in making healthy guesses, and while doing so, talk some maths and consolidate their understanding of place value. There are two versions here: the first one where the gaps for guessing are smaller and the multiplications a bit longer than the second one. We have tried this out with Year 6 and children stayed on task and talked maths as they shared strategies and refined them.

HOW TO PLAY ESTIMATING CONNECT FOUR
 You need 4 people, one baseboard and two sets of cards (different colours.)
 Work with a partner to make a team of two.
 Place your cards in a pile facing down.
 Take it in turn to turn over your top card and decide where to put it on the board.
DON'T WORK OUT THE ANSWER
 The winning team gets four in row.
 Decide whether to have challenges or a checking system.
 Can you make a similar game eg an Estimating division connect four?

28×32

74×19

250 - 500	<500	300 - 400	250 - 500	<500	400 - 600
> 500	100 - 200	200 - 300	100 - 200	> 500	>300
200 - 300	300 -400	> 500	> 300	400 -600	300 - 400
> 500	400 - 600	250 - 500	200 - 300	100 - 200	<500

29×18

19×16

23×18

34×30

58×15

51×12

54×19

90×11

43×13

27×12