

# Chiddingly School



## Maths Is Fun!

## Home Learning

## Activity Pack

## Year 5

Please **enjoy** these games with your child on a regular basis. Talk with them about what you have both learnt, or about strategies that you notice them using.

Please initial and date each time you play. After you have played any of the games on 5 different days, show the book to the class teacher and your child will receive a sticker. Do the same after playing it 10 times to receive a certificate.

Please remember that the stickers and certificates are not the main thing (*though don't discourage your child from working towards them!*). The real reward for your child will be spending time with you doing something worthwhile and enjoyable, and of course your child (and maybe you!) will make invaluable progress in their mathematics.

Finally, please don't panic about the games.

# 1: Roll Two Dice.

Take it in turns to roll two dice.

You score a point for correctly using the dice in one each of addition, subtraction, multiplication and division. So if you roll a 3 and a 6, you could say:

$$3 + 6 = 9$$

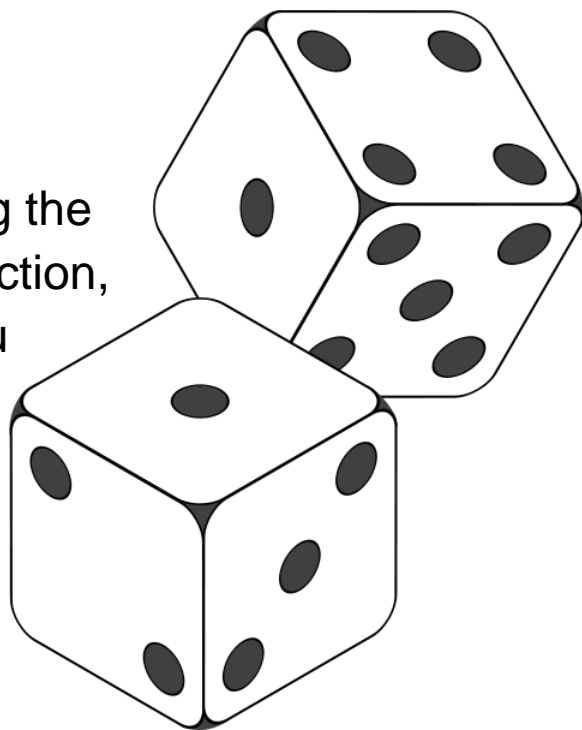
$$3 - 6 = -3$$

$$6 - 3 = 3$$

$$3 \times 6 = 18$$

$$3 \div 6 = 0.5$$

$$6 \div 3 = 2$$



(This is the best possible case; it is not always possible to make 6 different calculations with different answers, so score a bonus point if you manage it.)

Play this game on 10 different days!

1 Initials and Date:	2	3	4	5
6	7	8	9	10

## 2. Gimme 5!

Start by giving your child a multiplication fact up to  $10 \times 10$ . For example, you might say “Three times five equals fifteen.”

You have given them one fact, and they now have to give you five facts in return (hence the title). The five facts they should give you are:

“Five times three *equals fifteen.*”

“*Fifteen divided by three equals five.*”

*Fifteen divided by five equals three.*”

“*One fifth of fifteen equals three.*”

“*One third of fifteen equals five.*”

Once you both get confident at the game, you can vary the type of fact you give them to start with. For example, you could start with “Twelve divided by four equals three” and they must give you the other five facts. Encourage your child to spot that the facts are always in pairs: two multiplications, two divisions, and two fractions. This should help if they are missing one.

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### 3. TV Countdown

Have a set of blank cards or slips of paper (set one) consisting of three 1's, three 2's, three 3's, and so on up to three 9's.

Have a second set with two 50's and two 100's.

Mix the cards up and ask your child to select, unseen, any 6 small numbers (from set one) and any one large number (from set 2).

Now roll a dice 3 times to generate a 3-digit number.

They have to combine their cards using addition, subtraction, multiplication and division to get as close as possible to the 3-digit number. Each card may be used only once. There is no need to impose a 30-second time limit, and they should get praise and credit for getting close, even if they cannot get there exactly.

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## 4. Guess My Number

You need a 100 square similar to the one on the right. Choose a number and ask your child to guess what it is, by asking up to 10 'yes/no' questions.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

To start with, they may well ask lots of “*Is it larger/smaller than...?*” questions. This is OK initially, but do encourage them to use a wider range of mathematical language. Some examples include:

“*Is it odd/even?*”

“*Is it a multiple of 3/5/6 etc?*”

“*Is it prime?*” and so on. As they progress they can eliminate numbers by crossing them out on the grid. If they get it right within 10 questions, they score a point. Swap roles, and play 5 times each. Keep score and see who wins.

Advanced version: Ban any ‘larger/smaller than’ questions – this is much harder!

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## 5. Yoikes!

This is fun! Your child draws a line of 10 dashes. You call out any whole number from 1 to 100, and your child must write it on one of the dashes without showing you. They would be wise to put larger numbers towards the right however, as numbers on the dashes must always be sequential, so you cannot write '7' to the right of, say, a dash where you have written '12'. You call out another number and again it must go on one of the dashes. Do this ten times.

The aim of the game is for them to place all ten numbers on the line without getting stuck. If your child cannot place a number without breaking the sequential rule, they must call "YOIKES" and place the called number in a specially drawn bin (just draw an open-topped square!).

This is such a fun game – children love to try to beat you, and it will give them a great understanding of the relative sizes of numbers.

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## 6. Count On

SIZE OF JUMP	STARTING NUMBER
2	0
3	5
4	6
0.5	7
0.1	10

This is an easy game for two players which needs no equipment at all. One of you chooses a number from the first column (the size of jump), and the other chooses a number from the second (the starting number).

Taking it in turns, you must say the next number in sequence.

So, if you chose to start with jumps of 2, and your child chooses to start at 7, the conversation would go (hopefully):

You: "7"

Child: "9"

You: "11"

Child: "13" etc.

Stop when you get up to 50, or whenever you feel that your child is struggling, and swap roles. Repeat this until you have got to 50 at least 5 times.

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## 7. Count Back

SIZE OF JUMP	STARTING NUMBER
2	50
3	40
4	45
0.5	42
0.1	29

Once children have mastered the 'Count On' game, it is important that they also learn to count back as well.

So, this game should not be attempted before your child is familiar with 'Count On', but it does provide a useful extension activity. It is exactly the same, but this time keep counting until you get to zero or further.

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## 8. Fingers



A game that can be done any time, any place, anywhere! This game is similar to ‘Roll Two Dice’ but can be done with an element of competition if required. It is designed to encourage rapid recall of multiplication tables in a fun way.

You and your child each put both hands behind your back. Secretly extend between 0 and 10 fingers. Say “Ready Steady GO!” and both of you must bring your hands out in front of you.

Each of you must now call out the product of (*i.e. multiply together*) the number of fingers you each have. For example, if you show 7 fingers and your child reveals 5, you must both quickly call out “35”! The winner writes down one letter from the word “FINGERS (in sequence)”, and the first person to write down all six letters is the winner of the whole game.

If your child is not confident with their tables, do not make it a competition – simply give your child a letter for each time they get it right and see if they can get to spell FINGERS with a specific time limit.

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## 9. The Invisible Halving Machine

If you played the 'Invisible Doubling Machine' in Year 4, you will know what this is. Ask your child to imagine a horizontal line floating in front of their eyes. Next, give them a number from 1 to 100. They must imagine splitting this number into 10's and units (e.g. 46 is 40 and 6), and then pushing each section DOWN through the halving machine. (40 should go down on the left and 6 on the right).

As numbers cross the line, they halve. So, 40 becomes 20 as it crosses the line, and 6 becomes 3. Putting these two things back together gives 23. Use lots of examples and see if they can get 10 right in a row. To make it harder, use odd numbers, or extend the game to 3-digit numbers.

Children may well be able to extend themselves to work with numbers up to 1000.

Children will need lots of practice at this and they may discover that they can split numbers where THEY want to. For example, to halve 126, instead of halving 100 and then 20 and then 6, they might choose to halve 120 (60) and then 6 (3) and then add. It still works either way.

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## 10. Speed Cards.

Building on the game they played in Year 4, this time they have to subtract the card dealt from 100.



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reach negative 10 (*which is what you **should** get to if all 20 cards are dealt!*)

Remove the court cards and all the black cards from a pack. You are left with the ace to ten of hearts and diamonds. Shuffle these then deal one face up. Your child must subtract from 100 out loud. Continue until you

The aim is to time this and try to get faster and more accurate each time you play. This really is addictive!

For example, if the first four cards were 10, 5, 6, and 5, your child would say 90, 85, 79, 74 and so on.

How quickly can they get to negative 10? Keep a record and try to beat it each time you play.

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