## **Useful websites:**

#### www.ictgames.co.uk

Recommended games from this website: Mucky Monsters, Shifting Shapes, Money Splat, Nutty Numbers, Post a Letter

www.bbc.co.uk/schools/websites/4 11/site/numeracy.shtml

www.bbc.co.uk/cbeebies/games/theme/maths-and-puzzles

Useful Apps:

Kids Academy 123 Tracing (tracing numbers)

Free with in-app purchase for full unlock, iPad, iPhone, iPod



Math Farm (matching calculations to their answers)

£1.49, iPad, iPhone, iPod

# Ideas to support your child at home with maths



## **Nursery/Reception**

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## **Cupboard maths**

Ask your child to help you sort a food cupboard out, putting **heavier** items on the lower shelf and **lighter** items on an upper shelf.

## Rhymes

Teach your child any number rhymes or songs that you know, particularly ones that involve holding up a number of fingers, like *Five little speckled frogs.* Practise them regularly, with actions.

## One more, one less

For this game you need a dice, a coin and some building blocks or Lego bricks.

- ◆ Take turns to roll the dice.
- Build a tower with that number of blocks or bricks.

 $\blacklozenge$  Then toss the coin. Heads means take one brick off. Tails means add one on.

♦ If you can guess how many bricks there will be after this, you keep them!

• The first to collect 20 bricks or more wins!

## **Recognising numbers**

Choose a number for the week, e.g. 2.

Encourage your child to look out for this number all the time.

Can your child see the number 2 anywhere?

at home - in the kitchen

- on pages in a book in the street - on doors

- on car number plates

- on buses

## while out shopping

- on the shop till

- on shelves

- in shop windows

Find two apples, toys, spoons, straws, sweets, etc. Make patterns, such as two knives, two forks, two spoons, two knives, two forks, two spoons... Practise writing the number 2. Choose a different number each week

## Roll a shape

Cut out 12 shapes.

Make 3 triangles, 3 squares, 3 rectangles and 3 circles.

Take turns to roll a dice and collect a shape that has that number of sides, e.g. roll a 4, collect a square.

The first to have four different shapes wins. If you can name each shape you go first next time!

**Useful websites:** 

## www.ictgames.co.uk

Recommended games from this website: Funky Mummy, Counting Caterpillar, The Dragon's Eggs, Save the Whale

www.bbc.co.uk/schools/websites/4 11/site/numeracy.shtml

http://www.topmarks.co.uk/maths-games/5-7-years/ordering

**Useful Apps:** 

Dinosaur Park Math (addition and subtraction to 20)

69p, iPad, iPhone



Math Bingo (bingo with differing levels of difficulty)

69p, iPad, iPhone, iPod

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# Ideas to support your child at home in mathematics



Years 1 and 2

## Number facts

You need a 1–6 dice.

♦ Take turns. Roll the dice. See how quickly you can say the number to add to the number on the dice to make 10.

- ♦ If you are right, you score a point.
- The first to get 10 points wins.

You can extend this activity by making the two numbers add up to 20, or 50.

Guess my shape

♦ Think of a 2-D shape (triangle, circle, rectangle, square, pentagon or hexagon). Ask your child to ask questions to try and guess what it is.

- ◆ You can only answer Yes or *No*. For example, your child could ask: *Does it have 3 sides?* or: *Are its sides straight?*
- Try to guess the shape using fewer than five questions.
- Swap over so you can ask questions.

## **Straight lines**

Choose 4 toys and lay them on the table in order of length. Use a ruler to measure each toy to the nearest cm.

## **Shopping maths**

After you have been shopping, choose 6 different items each costing less than £1. Make a price label for each one, e.g. 39p, 78p. Shuffle the labels. Then ask your child to do one or more of these.

- Place the labels in order, starting with the lowest.
- Say which price is an odd number and which is an even number.
- ◆ Add 9p to each price in their head.
- ◆ Take 20p from each price in their head.
- Say which coins to use to pay exactly for each item.
- Choose any two of the items, and find their total cost.
- Work out the change from £1 for each item.

## **Pasta subtraction**

For this game you need a dice and some dried pasta or buttons.

- Start with a pile of pasta in the middle. Count them.
- ♦ Throw a dice. Say how many pieces of pasta will be left if you subtract that number.
- Then take the pieces of pasta away and check if you were right!
  Keep playing.
- The person to take the last piece wins!

## **Circle trios**

Draw four circles each on your piece of paper. Write four numbers between 3 and 18, one in each circle.

• Take turns to roll a dice three times and add the three numbers.

- ♦ If the total is one of the numbers in your circles then you may cross it out.
- The first to cross out all four circles wins.

## How much?

♦ Once a week, tip out the small change from a purse. Count it up with your child.

## Secret numbers

Write the numbers 0 to 20 on a sheet of paper. Ask your child secretly to choose a number on the paper. Then ask him / her some questions to find out what the secret number is, e.g.

Is it less than 10? Is it between 10 and 20? Does it have a 5 in it?

He / she may answer only yes or no.

Once you have guessed the number, it is your turn to choose a number. Your child asks the questions.

## Useful websites:

## www.ictgames.co.uk

www.bbc.co.uk/schools/websites/4 11/site/numeracy.shtml

http://resources.woodlands-junior.kent.sch.uk/maths/index.html

http://www.maths-games.org/times-tables-games.html

**Useful Apps:** 

Mr Thorne (mental maths questions)

£1.49 each, iPad, iPhone, iPod



## Mathmateer (56 mental maths games based in space)

69p, iPad, iPhone, iPod

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# Ideas to support your child at home in mathematics



## Years 3 and 4

## Pairs to 100

This is a game for two players. Each draw 10 circles. Write a different two-digit number in each circle – but not a 'tens' number (10, 20, 30, 40...). In turn, choose one of the other player's numbers. The other player must then say what to add to that number to make 100, e.g. choose 64, add 36. If the other player is right, she crosses out the chosen number. The first to cross out 6 numbers wins.

## Tables

Practise times tables up to 12x12. Say them forwards and backwards. Ask your child questions like: What are five threes? What is 15 divided by 5? Seven times three? How many threes in 21?

#### Number game 1

You need about 20 counters, pasta or coins.

Take turns. Roll two dice to make a two-digit number, e.g. if you roll a 4 and 1, this could be 41 or 14.

Add these two numbers in your head. If you are right, you win a counter. Tell your partner how you worked out the sum.

The first to get 10 counters wins.

Now try subtracting the smaller number from the larger one.

## Number game 2

Use three dice.

If you have only one dice, roll it 3 times. Make three-digit numbers, e.g. if you roll 2, 4 and 6, you could make 246, 264, 426, 462, 624 and 642.

Ask your child to round the three-digit number to the nearest multiple of 10.

Roll again. This time round three-digit numbers to the nearest 100. 76 to the nearest multiple of 10 is 80.

134 to the nearest multiple of 10 is 130.

(A number ending in a 5, 6,7, 8 or 9 always rounds up.)

## Can you tell the time?

Whenever possible, ask your child to tell you the time to the nearest 5 minutes. Use a clock with hands as well as a digital watch or clock. Also ask:

> What time will it be one hour from now? What time was it one hour ago?

Time your child doing various tasks, e.g.

getting ready for school; tidying a bedroom; saying the 5 times, 10 times or 2 times table...

Ask your child to guess in advance how long they think an activity will take. Can they beat their time when they repeat it?

## Secret sums

Ask your child to say a number, e.g. 43. Secretly do something to it (e.g. add 30). Say the answer, e.g. 73. The child then says another number to you, e.g. 61. Do the same to that number and say the answer. The child has to guess what you are doing to the number each time! Then they can have a turn at secretly adding or subtracting something to each number that you say to them.

## **Useful websites:**

## www.ictgames.co.uk

www.bbc.co.uk/schools/websites/4\_11/site/numeracy.shtml

http://resources.woodlands-junior.kent.sch.uk/maths/index.html

## http://www.counton.org

## **Useful Apps:**

YodelOh Math Mountain (mental maths which increases in difficulty)

Free, iPad, iPhone, iPod



Pure Math (mental maths with fast difficulty progression)

Free, upgrade to full version for £1.49, iPhone, iPad, iPod

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## Years 5 and 6

## Target 1000

Roll a dice 6 times. Use the six digits to make two three-digit numbers. Add the two numbers together. How close to 1000 can you get?

## Countdown

Write each digit 0-9 on post-it notes. Give your child 5 digits and a target 3 digit number to make using any operation. Challenge your child to get as close as they can to the target number using the 5 digits. You might like to give your child a time limit (2 minutes) like the TV show.

## Guess my number

Choose a number between 0 and 1 with one decimal place, e.g. 0.6. Challenge your child to ask questions to guess your number.

# Ideas to support your child at home in mathematics

You may only answer 'Yes' or 'No'. For example, your child could ask questions like 'Is it less than a half?'

See if they can guess your number in fewer than 5 questions. Now let your child choose a mystery number for you to guess. Extend the game by choosing a number with one or two decimal places between 1 and 10, e.g. 3.6, 5.64. You may need more questions.

## Line it up

You need a ruler marked in centimetres and millimetres.

Use the ruler to draw 10 different straight lines on a piece of paper. Ask your child to estimate the length of each line and write the estimate on the line. Now give them the ruler and ask them to measure each line to the nearest millimetre. Ask them to write the measurement next to the estimate, and work out the difference. A difference of 5 millimetres or less scores 10 points. A difference of 1 centimetre or less scores 5 points. How close to 100 points can they get?

## Dicey division

For this game you need a 1–100 board (a snakes and ladders board will do), a dice and 20 coins or counters.

#### Take turns.

Choose a two-digit number. Roll a dice. If you roll 1, roll again. If your two-digit number divides exactly by the dice number, put a coin on your chosen two-digit number. Otherwise, miss that turn. The first to get 10 counters on the board wins.

## **TV addicts**

Ask your child to keep a record of how long he/she watches TV each day for a week. Then ask him/her to do the following:-

• Work out the total watching time for the week.

• Work out the average watching time for a day (that is, the total time divided by 7).

Instead of watching TV, you could ask them to keep a record of time spent eating meals, or playing outdoors, or anything else they do each day. Then work out the daily average.

## Recipes

Find a recipe for 4 people and rewrite it for 8 people, e.g.4 people8 people125g flour250g flour50g butter100g butter75g sugar150g sugar30ml treacle60ml treacle1 teaspoon ginger2 teaspoons gingerCan you rewrite it for 3 people?Or 5 people?