**Level 4 to Level 5**

**Favourite food**

* Ask your child the cost of a favourite item of food. And how much they think it would cost?

Ask them to work out what 7 of them would cost, or 8, or 9.

How much change would there be from £50?

* Repeat with his / her least favourite food.

What is the difference in cost between the two?

**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 this.

* 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).

What was the mode/Median

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.

**Four in a line**

Draw a 6 x 7 grid.

Fill it with numbers under 100.

* Take turns.
* Roll three dice, or roll one dice three times.
* Use all three numbers to make a number on the grid.
* You can add, subtract, multiply or divide the numbers,

e.g. if you roll 3, 4 and 5, you could make 3 x 4 – 5 = 7,

54 ÷ 3 = 18, (4 + 5) x 3 = 27, and so on.

* Cover the number you make with a coin or counter.
* The first to get four of their counters in a straight line wins.

**Three in a row (4)**

For this game you need a calculator.

Draw a line like this:

 0 1

* Take it in turns to choose a fraction, say 2/5. Use the calculator to convert it to a decimal (i.e. 2 ÷ 5 = 0.4) and mark your initials at this point on the line.
* The aim of the game is to get 3 crosses in a row without any of the other player’s marks in between.
* Some fractions are harder to place than others, e.g. ninths.

**Multiplication**

**Flowers**

* Take turns to think of a flower.



* Use an alphabet code, A = 1, B = 2, C = 3... up to Z = 26.
* Find the numbers for the first and last letters of your flower, e.g. for a ROSE, R = 18, and E = 5.
* Multiply the two numbers together, e.g. 18 x 5 = 90.
* The person with the biggest answer scores a point.
* The winner is the first to get 5 points.

When you play again you could think of animals, or countries.

**Fours**

* Use exactly four 4s each time.
* You can add, subtract, multiply or divide them.
* Can you make each number from 1 to 100?
* Here are some ways of making the first two numbers.

 1 = (4 + 4)/(4 + 4)

 2 = 4/4 + 4/4

**Recipes**

Find a recipe for 4 people and rewrite it for 8 people, e.g.

4 people 8 people

125g flour 250g flour

50g butter 100g butter

75g sugar 150g sugar

30ml treacle 60ml treacle

1 teaspoon ginger 2 teaspoons ginger

Can you rewrite it for 3 people? Or 5 people?

**Card game**

Use a pack of playing cards.

Take out the jacks, queens and kings.

* Take turns.
* Take a card and roll a dice.
* Multiply the two numbers.
* Write down the answer. Keep a running total.
* The first to go over 301 wins!

**Fours**

* Use exactly four 4s each time.
* You can add, subtract, multiply or divide them.
* Can you make each number from 1 to 100?
* Here are some ways of making the first two numbers.

 1 = (4 + 4)/(4 + 4)

 2 = 4/4 + 4/4

**Doubles and trebles**

* Roll two dice.
* Multiply the two numbers to get your score.
* Roll one of the dice again. If it is an even number, double your score. If it is an odd number, treble your score.
* Keep a running total of your score.
* The first to get over 301 wins.

**Division**

Draw a 6 x 6 grid like this.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 82 | 33 | 60 | 11 | 73 | 22 |
| 65 | 12 | 74 | 28 | 93 | 51 |
| 37 | 94 | 57 | 13 | 66 | 38 |
| 19 | 67 | 76 | 41 | 75 | 85 |
| 86 | 29 | 68 | 58 | 20 | 46 |
| 50 | 69 | 30 | 78 | 59 | 10 |

* Choose the 7, 8 or 9 times table.
* Take turns.
* Roll a dice.
* Choose a number on the board, e.g. 59. Divide it by the tables number, e.g. 7. If the remainder for 59 ÷ 7 is the same as the dice number, you can cover the board number with a counter or coin.
* The first to get four of their counters in a straight line wins!

**Time/Conversion**

**Journeys**

Use the chart in the front of a road atlas that tells you the distance between places.

* Find the nearest place to you.
* Ask your child to work out how long it would take to travel to some places in England if you travelled at an average of 60 miles per hour, i.e. 1 mile per minute, e.g.

York to Preston: 90 miles 1 hour 30 minutes

York to Dover: 280 miles 4 hours 40 minutes

Encourage your child to count in 60s to work out the answers mentally.

**Finding areas and perimeters**

*Perimeter = distance around the edge of a shape*

*Area of a rectangle = length x breadth (width)*

* Collect 5 or 6 used envelopes of different sizes. Place 2 next to each other to make a larger shape. (Do not overlap the envelopes see eg below
* Ask your child to estimate the perimeter of the larger shape to the nearest centimetre. Write the estimate on the back.
* Now measure. Write the estimate next to the measurement.

**One million pounds**

Assume you have £1 000 000 to spend or give away.

Plan with your child what to do with it, down to the last penny.

**Weight**

 Ask children to help weigh out things at home and take advantage of asking them to read a variety of scales