

### Decimal number plates

- Choose 2 digits from a car registration plate.

**FD56 UPN**

- Make the smallest and largest numbers you can, each with 1 decimal place, e.g. 5.6 and 6.5.
- Now find the difference between the two decimal numbers, e.g.  $6.5 - 5.6 = 0.9$ .
- Whoever makes the biggest difference scores 10 points.
- The person with the most points wins.

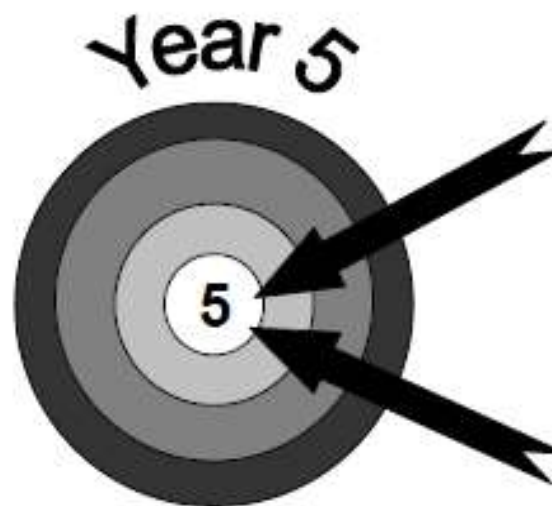
Play the game again, but this time score 10 points for the smallest difference, or 10 points for the biggest total. (If you add the numbers)

### Guess my number

- Choose a number between 0 and 1 with one decimal place, e.g. 0.6.
- Challenge your child to ask you questions to guess your number. You may only answer 'Yes' or 'No'. For example, he could ask questions like 'Is it less than a half?'
- See if he 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 decimal place between 1 and 10, e.g. 3.6. You may need more questions.

# Supporting your child at home



**Mathematics**

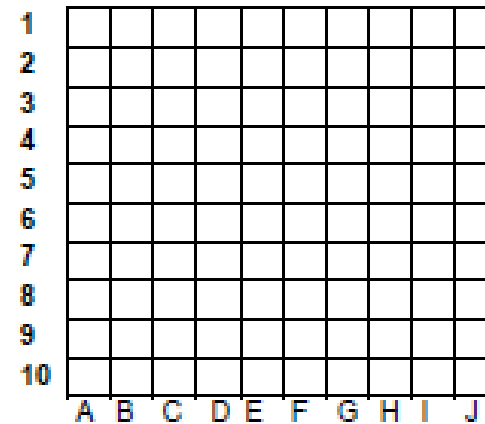
**A booklet for parents**

## By the end of Year 5, most children should be able to...

- Locate 5 and 6 digit numbers on a landmarked line; use this to compare/order numbers.
- Round to ten, a hundred, a thousand or ten thousand.
- Begin to read scales of different types
- Understand a one-place decimal number as a number of tenths and a two-place decimal number as a number of hundredths.
- Understand the effect of multiplying and dividing by 10 and 100 to give 1-place and 2-place decimal answers. E.g.  $4.5 \times 10 = 45$ , and  $678 \div 100 = 6.78$  etc.
- Add or subtract 0.1 or 0.01 to/from any decimal number with confidence, e.g.  $5.83 + 0.01$  or  $4.83 - 0.1$
- Add and subtract mentally with confidence – where the numbers are less than 100 or the calculation relies upon simple addition/subtraction and place value. Examples include:  $6,723 - 400$ ,  $78 + 46$ ,  $72 - 46$ ,  $8020 + 910$ ,  $100 - 64$ ,  $5000 + 12,000$ , etc.
- Confidently add 3- and friendly 4-digit numbers together using a secure written method
- Subtract larger numbers
- Begin to subtract decimal numbers
- Know and recite **all** times tables including division facts.
- Multiply 2- and 3-digit numbers by numbers  $\leq 12$  using grid method; multiply 2-digit by 2-digit numbers using grid method.
- Scale up or down by a factor of 2, 5 or 10
- Perform divisions mentally within the range of tables facts using remainders and fractions and decimal equivalences, e.g.  $68 \div 8 = 8$  r4 or  $8\frac{1}{2}$  or 8.5
- Divide 2-digit and 3-digit numbers by one-digit numbers above the range of tables using efficient chunking.
- Reduce fractions to their simplest form, including tenths to fifths and hundredths to tenths, e.g.  $40/100 = 4/10 = 2/5$  which is also 0.4
- Identify simple fraction and decimal equivalents:  $\frac{1}{2} \equiv 0.5$ ,  $0.25 \equiv \frac{1}{4}$  and  $0.75 \equiv \frac{3}{4}$ .
- Measure and compare capacities, weights and lengths, including perimeters using SI units; understand the concept of area and count squares to find areas.
- Understand the properties of triangles; find unknown angles in triangles and rectangles.

## Battleships

- Draw two grids like this



- Choose ships of various lengths (use between 2 and 4 squares)
- Hide your grid from your partner
- Take it in turns to guess the co-ordinates of your opponents
- ships.
- Respond with “hit” or “miss”
- The winner is the person to sink all their opponents ships

## How much?

- While shopping, point out an item costing less than £1.
- Ask your child to work out in their head the cost of 3 items. Ask them to guess first. See how close they come.
- If you see any items labelled, for example, ‘2 for £3.50’, ask them to work out the cost of 1 item for you, and to explain how they got the answer.



### Times tables

Say together the six times table forwards, then backwards. Ask your child questions, such as:

- Nine sixes?                      How many sixes in 42?
- Six times four?                 Forty-eight divided by six?
- Three multiplied by six?      Six times what equals sixty?

Repeat with the seven, eight and nine times tables.

Make a times-table grid like this.

1	2	3	4	5	6	7	8	9	10
2	4	6	8	10	12	14	16	18	20
3	6	9	12	15	18	21	24	27	30
4	8	12	16	20	24	28	32	36	40
5	10	15	20	25	30	35	40	45	50
6	12	18	24	30	36	42	48	54	60
7	14	21	28	35	42	49	56	63	70
8	16	24	32	40	48	56	64	72	80
9	18	27	36	45	54	63	72	81	90
10	20	30	40	50	60	70	80	90	100

- Shade in all the tables facts that your child knows, probably the 1s, 2s, 3s, 4s, 5s and 10s.
- Some facts appear twice, e.g.  $7 \times 3$  and  $3 \times 7$ , so cross out one of each.
- Are you surprised how few facts are left?
- There might only be 10 facts to learn. So take one fact a day and make up a silly rhyme together to help your child to learn it, e.g. *nine sevens are sixty-three, let's have lots of chips for tea!*

### 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?

### Finding areas and perimeters

*Perimeter = distance around the edge of a shape*  
*Area of a rectangle = length  $\times$  breadth (width)*

- Collect 5 or 6 used envelopes of different sizes.
- Ask your child to estimate the perimeter of each one to the nearest centimetre. Write the estimate on the back.
- Now measure. Write the estimate next to the measurement.
- How close did your child get?
- Now choose 5 or 6 adverts from newspapers or magazines.

You could do something similar using an old newspaper, e.g.

- Ask your child to estimate the area of each advert to the nearest centimetre squared – write these down.
- Now measure and calculate.
- How close did your child get?

### Telephone challenges

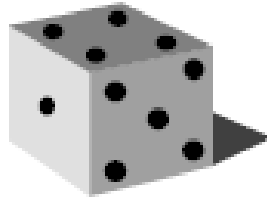
- Challenge your child to find numbers in the telephone directory where the digits add up to 42.
- Find as many as possible in 10 minutes.

On another day, see if they can beat their previous total

**Telephone: 01264 738 281**

### Dicey subtractions

- Take turns to roll a dice twice.
- Fill in the missing boxes.  
 $400\square - 399\square$   
e.g.  $4002 - 3994$
- Count on from the smaller to the larger number,  
e.g.  $3995, 3996, 3997, 3998, 3999, 4000, 4001, 4002$ .
- You counted on 8, so you score 8 points.
- Keep a running total of your score .
- The first to get 50 or more points wins.



### 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.

### About the Statements

These statements show some of the things your child should be able to do by the end of Year 5.

A statement may be harder than it seems, e.g. a child may subtract 3994 from 9007 by using a formal written method, without realising it is quicker to count on from 3994 up to 9007 in his / her head.

### Fun activities to do at home

#### 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?

*My estimate 8.5 cm*

**Useful websites:**

[http://www.bbc.co.uk/schools/websites/4\\_11/site/numeracy.shtml](http://www.bbc.co.uk/schools/websites/4_11/site/numeracy.shtml)

<http://www.topmarks.co.uk/flash.aspx?f=hitthebuttonv11>

[http://www.offbyheart.co.uk/maths/yr5\\_m\\_g.php](http://www.offbyheart.co.uk/maths/yr5_m_g.php)

**Number squares:**

101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120
121	122	123	124	125	126	127	128	129	130
131	132	133	134	135	136	137	138	139	140
141	142	143	144	145	146	147	148	149	150
151	152	153	154	155	156	157	158	159	160
161	162	163	164	165	166	167	168	169	170
171	172	173	174	175	176	177	178	179	180
181	182	183	184	185	186	187	188	189	190
191	192	193	194	195	196	197	198	199	200

0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9
2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9
3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9
4.0	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9
5.0	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9
6.0	6.1	6.2	6.3	6.4	6.5	6.6	6.7	6.8	6.9
7.0	7.1	7.2	7.3	7.4	7.5	7.6	7.7	7.8	7.9
8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9
9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9

**Clock face:**

