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.

Four in a line

Draw a 6 x 7 grid.
Fill it with numbers under 100.

| 26	54	47	21	19	5	38
9	25	67	56	31	49	13
39	41	6	1	75	28	90
14	50	81	23	43	4	37
45	29	72	34	7	58	17
36	2	55	11	22	40	42

♦ 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.

Rhymes

Make up rhymes together to help your child to remember the harder times-tables facts, e.g.
6 x 7 = 42 phew! 7 x 7 = 49 fine! 6 x 8 = 48 great!

Supporting your child at home

Year 6

6

Mathematics
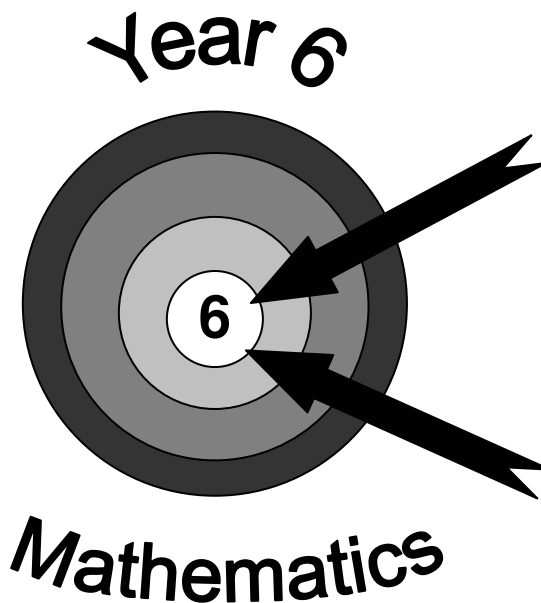
A booklet for parents

By the end of Year 6, most children should be able to…

☐ Express one quantity as a percentage of another (e.g express £400 as a percentage of £1000); find equivalent percentages, decimals and fractions

☐ Use knowledge of place value and multiplication facts to 10 x 10 to derive related multiplication and division facts involving decimals (e.g 0.8 x 7, 4.8 ÷ 6)

☐ Use efficient written methods to add and subtract integers and decimals, to multiply and divide integers and decimals by a one-digit integer, and to multiply two-digit and three-digit integers by a two digit integer

☐ Visualise and draw on grids of different types where a shape will be after reflection, after translations, or after rotation through 90˚ or 180˚ about its centre or one of its vertices

☐ Select and use standard metric units of measure and convert between units of measure using decimals to two places (e.g change 2.75 litres to 2750 ml or vice versa)

☐ Solve problems by collecting, selecting, processing, presenting and interpreting data, using ICT where appropriate; draw conclusions and identify further questions to ask
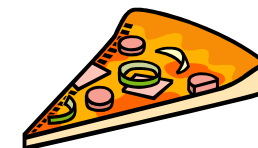
Recipes

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?

Favourite food

♦ Ask your child the cost of a favourite item of food.
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.
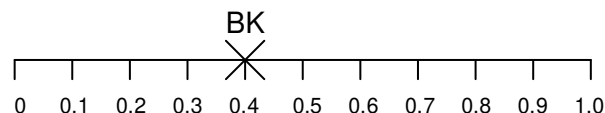What is the difference in cost between the two?

Sale of the century

♦ When you go shopping, or see a shop with a sale on, ask your child to work out what some items would cost with:
  50% off
  25% off
  10% off
  5% off

♦ Ask your child to explain how s/he worked it out.

Three in a row

For this game you need a calculator.
Draw a line like this:

BK

0   0.1   0.2   0.3   0.4   0.5   0.6   0.7   0.8   0.9   1.0

♦ Take it in turns to choose a fraction, say $^2/_5$. Use the
calculator to convert it to a decimal (i.e. $2 \div 5 = 0.4$) 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.

Animals
♦ Take turns to think of an animal.

♦ 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 animal,
e.g. for a TIGER, T = 20, and I = 9,
♦ Multiply the two numbers together, e.g. 20 x 9 = 180.
♦ 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 names, food, countries
etc.
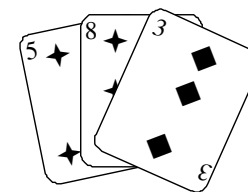
Card game

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!

Remainders
Draw a 6 x 6 grid like this and fill in numbers under 100.

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 $59 \div 7$ is the same
as the dice number, you can cover the board number with a
counter or coin.
♦ The first to get three of their counters in a straight line wins!

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 from this place to some other 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.
Extend this by asking questions like "What if you travelled at 30 mph? What if we started at London?
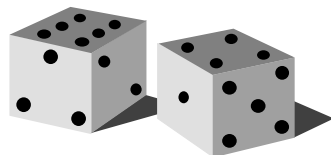
Doubles and trebles

- ♦ 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.

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About the statements

These statements show some of the things your child should be able to do by the end of Year 6.

Some statements may be more complex than they seem, e.g. children may know how to work out sums on paper but need to see when it is quicker to work them out in their heads.

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.

$$1 = (4 + 4)/(4 + 4)$$
$$2 = 4/4 + 4/4$$

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.