

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

Four in a line

Draw a 6×7 grid.

Fill it with numbers under 100.

25	47	54	12	97	65
14	87	92	12	17	15
25	72	99	11	66	33
47	20	24	98	64	24
43	57	60	55	56	27
19	77	44	67	54	91
28	32	41	36	25	21

- ✚ Take turns and roll three dice.
- ✚ 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 $3 \times 4 - 5 = 7$, $54 \div 3 = 18$, $(4 + 5) \times 3 = 27$, 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 win

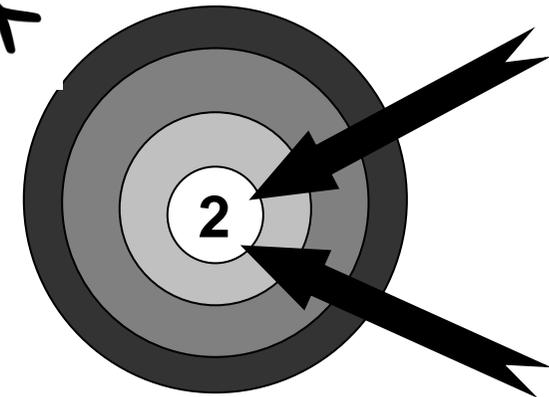
Rhymes

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

Hanging Heaton C of E (VC) J & I School

Supporting your child at home

Year 6



Mathematics

A booklet for parents

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

- read, write, order and compare numbers up to 10 000 000 and determine the value of each digit, round any whole number and use negative numbers in context.
- multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication.
- perform mental calculations, including mixed operations.
- divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context Use tables to work with decimals (to 1dp).
- use common factors to simplify fractions; use common multiples to express fractions in the same denomination, compare and order fractions, add and subtract fractions using the concept of equivalent fractions and multiply simple pairs of proper fractions.
- solve problems involving the:
 - relative sizes of two quantities,
 - calculation of percentages
 - similar shapes where the scale factor can be found
 - unequal sharing and grouping using fractions and multiples.
- solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places.
- interpret and construct pie charts and line graphs and use these to solve problems and calculate and interpret the mean as an average.
- compare/classify geometric shapes based on their properties & sizes and find unknown angles in triangles, quadrilaterals, & regular polygons.
- recognise co-ordinates in 4 quadrants and draw and translate shapes.

Recipes

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

Can you rewrite it for 3 or 5 people?

4 people	8 people
125 g flour	250g flour
50g butter	100g butter
75g sugar	150g sugar
30ml treacle	60ml treacle
1 teaspoon ginger	2 teaspoon ginger

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

Favourite foods

✚ Ask your child to identify the cost of their favourite food. How much would 7 or 8 cost?
✚ How much is their least favourite food. What is the cost difference individually and for 7 or 8?

Three in a row

For this game you need a calculator.

Draw a line like this:



- ✚ Take it in turns to choose a fraction, say $\frac{2}{5}$. 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. $20 \times 9 = 180$.
- ✚ 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 games

Use a pack of playing cards and take out the picture cards.

- ✚ Take turns.
- ✚ Take a card and roll a dice.
- ✚ Multiply the 2 numbers.
- ✚ Write down the answer and keep a running total.
- ✚ The first to 301 wins.

Remainders

- ✚ Draw a 6 x 6 grid and fill it with any number under 100.

25	47	54	12	97	65
14	87	92	12	17	15
25	72	99	11	66	33
47	20	24	98	64	24
43	57	60	55	56	27
19	77	44	67	54	91
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- ✚ 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 table's 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.

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.

Fun activities to do at home

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.

