

These examples illustrate what the Year 6 children should be able to do by the end of the year.

- Know all tables to 10×10 , especially for division, e.g. $63 \div 7 = 9$, and quickly work out remainders.
- Multiply and divide decimals by 10 or 100 in their heads, e.g. 2.61×10 , $53.2 \div 100$.
- Put numbers, including decimals, in order of size, e.g. 1.06, 0.099, 0.25, 1.67.
- Use pencil and paper to add and subtract decimals, e.g. $3.91 + 8.04 + 24.56$, or $13.3 - 1.27$.
- Use pencil and paper to multiply and divide, e.g. 387×46 , 21.5×7 , $539 \div 13$, $307.6 \div 4$.
- Cancel fractions e.g. reduce $\frac{4}{20}$ to $\frac{1}{5}$, and work out which of two fractions is bigger, e.g. $\frac{7}{12}$ or $\frac{2}{3}$.
- Work out simple percentages of whole numbers, e.g. 25% of £90 is £22.50.
- Estimate angles and use a protractor to measure them.
- Work out the perimeter and area of simple shapes that can be split into rectangles, e.g.
- Solve word problems and explain their methods.
- Use co-ordinates to plot the position of points.
- Understand and use information in graphs, charts and tables.

About the statements:

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

Some targets 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.



**St Peter's
Primary School**

**A BOOKLET FOR
PARENTS**



**Guide to Mathematics
at home**

Year 6

Mathematics Booklet

The information in this booklet is to help you to help your child with maths. Children need to experience maths as part of their everyday environment. You can support your child by trying some of these games and activities at home.

Please feel free to come and talk to us if you have any questions about this booklet or any aspect of your child's learning in maths.

Finding areas and perimeters

Perimeter = distance around the edge of shape

Area of a rectangle = length x 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?



A 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.

Journeys



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

ϕ Find the nearest place to you.

ϕ 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.

Card game

Use a pack of playing cards.
Take out the jacks, queens and kings.

ϕ Take turns.

ϕ Take a card and roll a dice.

ϕ Multiply the two numbers.

ϕ Write down the answer. Keep a running total.

ϕ The first to go over 301 wins!



Target 1000

ϕ Roll a dice 6 times.

ϕ Use the six digits to make two three-digit numbers.

ϕ Add the two numbers together.

ϕ How close to 1000 can you get?

Doubles and trebles



Roll two dice.

ϕ Multiply the two numbers to get your score.

ϕ Roll one of the dice again. If it is an even number, double your score. If it is an odd number, treble your score.

ϕ Keep a running total of your score.

ϕ The first to get over 301 wins.

Remainders

Draw a 6 x 6 grid and write in various 2-digit numbers inside.

ϕ Choose the 7, 8 or 9 times table.

ϕ Take turns.

ϕ Roll a dice.

ϕ 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.

ϕ The first to get four of their counters in a straight line wins!

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,

Three in a row

For this game you need a calculator.

Draw a number line.

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.

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.

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

$$2 = 4/4 + 4/4$$

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.

