# Key Stage 2

# Year 4

# Maths is everywhere!

*We have created a mathematics booklet to show you some of the things that your child should be able to do by the end of Year 4. In St Pius X Year 4 follow the Power Maths scheme of learning.*

*Every lesson starts with a* ***Discover*** *task to get children to solve a problem that aims to generate curiosity. During this section children may use manipulatives to help them understand the maths and explain their method. The next stage encourages children to* ***Share*** *the methods they have tried to solve the problem in* ***Discover****. We only learn when we are thinking! So in the* ***Thinking Together*** *section Power Maths takes the approach "I do, we do, you do", as children apply the knowledge they have just learned in a series of problems that continue to encourage thinking throughout. Children are then ready for* ***Practice****, where children get to apply their learning independently.*

*It is very important for children at this stage of their learning to use objects to support them in their learning and to talk about maths whenever they can. What we really want is for our children to see that maths is everywhere!*

***Below are some key areas of learning that your child will focus on this year to help them prepare for their next stage in their learning. We have also included some fun activities that you could do together. What we really want is for our children to see that maths is everywhere! Two fantastic apps to support learning of maths are Times Table Rock Stars (TTRS) and Sumdog, which school have purchased and your child has a login for—we have produced an information page on both of these apps for you to read.***

***By the end of Year 4, most children should be able to…***

- *Round any number to the nearest 10, 100 or 1,000*
- *Order and compare numbers beyond 1,000*
- *Count in multiples of 6, 7, 9, 25 and 1,000*
- *Read Roman numerals to 100 (i to c) and know that over time, the numeral system changed to include the concept of zero and place value*
- *Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero*
- *Recall multiplication and division facts for multiplication tables up to 12 × 12*
- *Recognise and write decimal equivalents to 1/4, 1/2, ¾*
- *Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes*
- *Estimate, compare and calculate different measures, including money in pounds and pence*
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***Number game***

*Put some dominoes face down*

***Shuffle them.***

***Each choose a domino.***

***Multiply the two numbers on your domino.***

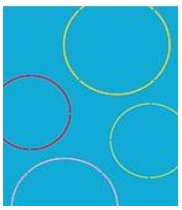
***Whoever has the biggest answer keeps the two dominoes.***

***The winner is the person with the most dominoes when they have all been used.***

***Pairs to 1000***

*This is a game for two players.*

- *Each draw 10 circles. Write a different 3-digit number in each circle – but not a 'hundreds' number (100, 200, 300, 400…).*
- *In turn, choose one of the other player's numbers.*
- *The other player must then say what to add to that number to make 1000, e.g. choose 640, add 360.*
- *If the other player is right, they cross out the chosen number.*
- *The first to cross out 6 numbers wins.*



***Sum it up***

- *Each player needs a dice.*
- *Say: Go! Then each rolls a dice at the same time.*
- *Add up all the numbers showing on your own dice, at the sides as well as at the top.*
- *Whoever has the highest total scores 1 point.*
- *The first to get 10 points wins.*

**Dicey tens**

*For this game you need a 1–100 square (a snakes and ladders board will do), 20 counters or coins, and a dice.*

*Take turns.*

*Choose a two-digit number on the board e.g. 24.*

*Roll the dice. If you roll a 6, miss that turn.*

*Multiply the dice number by 10, e.g. if you roll a 4, it becomes 40.*

*Either add or subtract this number to or from your two-digit number on the board, e.g. 24 + 40 = 64. If you are right, put a coin on the answer.*

*The first to get 10 coins on the board wins.*

**Left overs**

*Take turns to choose a 2-digit number less than 50.*

*Write it down. Now count up to it in fours. What number is left over?*

*The number left is the number of points you score, e.g. Choose 27. Count: 4, 8, 12, 16, 20, 24. 3 left over to get to 27. So you score 3 points.*

*The first person to get 12 or more points wins.*

*Now try the same game counting in threes, or in fives. Can you spot which numbers will score you points?*

**Sum it up**

*Each player needs a dice.*

*Say: Go! Then each rolls a dice at the same time.*

*Add up all the numbers showing on your own dice, at the sides as well as at the top.*

*Whoever has the highest total scores 1 point.*

*The first to get 10 points wins.*

## Mugs

*You need a 1 litre measuring jug and a selection of different mugs, cups or beakers.*

*Ask your child to fill a mug with water.*

*Pour the water carefully into the jug.*

*Read the measurement to the nearest 10 millilitres.*

*Write the measurement on a piece of paper.*

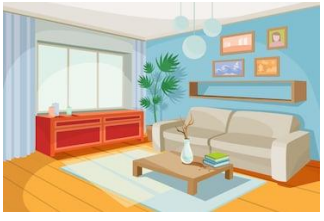
## Measuring

*Use a tape measure that shows centimetres.*

*Take turns measuring lengths of different objects, e.g. the length of a settee, the width of a table, the length of the bath, the height of a door.*

*Record the measurement in centimetres, or metres and centimetres if it is more than a metre, e.g. if the bath is 165 cm long, you could say it is 1m 65cm (or 1.65m).*

*Write all the measurements in order.*



## *Dicey division*

*You each need a piece of paper.*

*Each of you should choose five numbers from the list below and write them on your paper.*

*5 6 8 9 12 15 20 30 40 50*

*Take turns to roll a dice. If the number you roll divides exactly into one of your numbers, then cross it out, e.g. you roll a 4, it goes into 8, cross out 8.*

*If you roll a 1, miss that go. If you roll a 6 have an extra go.*

*The first to cross out all five of their numbers wins.*

## *Triples*

*Use three dice.*

*If you have only one dice, roll it 3 times.*

*Make 3-digit numbers, e.g. if you roll 2, 4 and 6, you could make 246, 264, 426, 462, 624 and 642.*

*Ask your child to round the three-digit number to the nearest multiple of 10. Check whether it is correct, e.g. 76 to the nearest multiple of 10 is 80. 134 to the nearest multiple of 10 is 130.*

*Roll again. This time round 3-digit numbers to the nearest 100.*

***Top tip: a number ending in a 5 always rounds up!***