

Maths

Book 2

Name: _____

Home Learning Log



**St George's
Primary School**



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Primary School**

This homework book provides opportunities for you to support and enjoy mathematics with your child through playing various fun activities at home. All the games are focused at your child's stage of development.

The aim of all the activities is to develop mathematical confidence and fluency through practise and repetition.

Your child's class teacher may advise particular games for your child to practise, or they may let the choice be yours.

Our expectation is that **your child will complete at least one activity a week**. Any working out and mathematical thinking related to the tasks should be captured in their jotter. To complete the booklet they will need to complete 2/3 activities a week.

Please initial and date an activity when complete and record the activities your child has completed each week in the logbook area at the back of this book. You can also use this area to comment on your child's progress and communicate with your child's teacher. Please remind the children to bring their books in weekly by **Wednesday**.

It is your challenge to complete the whole book by the end of the year!

For the following activities, you will need:

- A pencil and paper
- Objects to count
- A dice
- Counters (they can be made from paper)
- Playing cards
- Coins

The only way
to learn
mathematics
is to do
mathematics.

PAUL HALMOS

Counting On



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This is an extension from the activity in book one. The aim is to be fluent to at least 100 with counting by the end of Year 2. This is a game that requires no equipment and can be played in pairs.

One person chooses a number from the first column (jump size), and the other chooses a number from the second column (the starting number). You must take it in turns to say the next number in the sequence.

For example, if you chose to start with jumps of 5, and your child decided to start at 4, the conversation would go:

Child: "4"

You: "9"

Child: "14" etc.

Set a limit to reach, or stop whenever you feel that your child is struggling. You can swap your roles over. Challenge your child to use their jotter to **visually represent** their counting. This will help them to **notice patterns and create rules**. To go deeper, ask your child 'How can you use counting in jumps of **10**, to help you count in jumps of **9** or **11**?'

Jump Size	Starting Number
5	0
10	5
1	7
2	10
3	40

	Initials & Date
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Counting Back

This is an extension from the activity in book one. The aim is to be fluent to at least 100 with counting by the end of Year 2.

It is very important that children learn to count backwards as well as forwards. As in 'Counting On', one person chooses a number from the first column (jump size), and the other chooses a number from the second column (the starting number). You must take it in turns to say the next number in the sequence when counting backwards.

For example, if you chose to start with jumps of 5, and your child decided to start at 76, the conversation would go:

Child: "76"

You: "71"

Child: "66" etc.

Keep counting until you reach zero, or until you can't go any further as the next number would be below zero. There is no need to explore negative numbers at this stage. Challenge your child to use their jotter to **visually represent** their counting. This will help them to **notice patterns and create rules**. To go deeper, ask your child 'How can you use counting back in jumps of 2, to help you back count in jumps of 4?' You could also ask your child to **predict** a number that will or won't be said in the counting sequence and to **justify** this in their jotter.



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Jump Size	Starting Number
5	75
10	60
1	99
3	100
2	82

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Number Hunt



This is an extension from the activity in book one. Aim is to develop number confidence.

When going on a trip outside, ask your child to hunt for as many numbers in their environment as they can. This will help children to see that numbers don't just appear in the classroom, they are an important part of daily life. They should be exploring patterns, difference in numbers and digit values.

- How many numbers can you spot during one trip outside?
- How many different ways are numbers used and why?
- What patterns can they see?
- What is the largest number they recognise?
- Set them challenges such as, find:
 - 3 odd numbers
 - 3 numbers bigger than 50
 - 5 numbers and then put them in order.

Here are a couple of examples:

House numbers, speed limits, prices – and there are many more!



	Initials & Date
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Number Bonds Snap



This is an extension from the activity in book one. The aim is to develop mastery of number bonds.

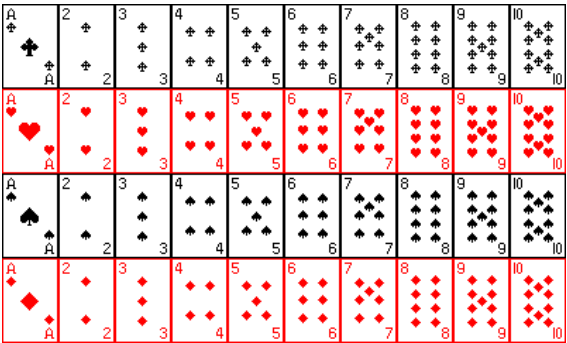
Find a pack of cards and remove all Kings, Queens and Jacks. You should be left with 40 cards.

- Start by taking 20 cards each.
- Take it in turns to reveal one card at a time, keeping your piles separate.
- Choose a total for your number bonds from 2 to 20 (for example you could say 13).
- If both cards on top of the two piles add up to the total (for example 6 and 7 make 13) , shout ‘SNAP’!
- The first person to shout it correctly wins all of the cards on the table.

The winner is the person to collect all of the cards.

You should increase the challenge according to your child’s confidence with their number bonds.

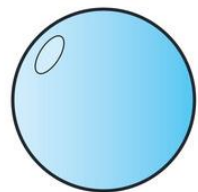
	Initials & Date
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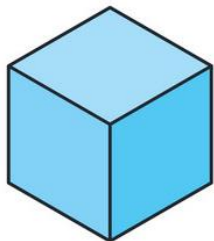
Shape Hunt

Have a walk around your home with your child. Try to spot a range of different 3-D shapes. To begin, just work together to find lots of different examples. See which 3-D shapes your child is confident in naming.

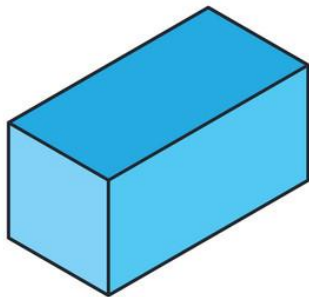
Can they spot and name any everyday objects that are the 3-D shapes below?



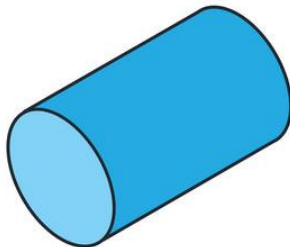
Sphere



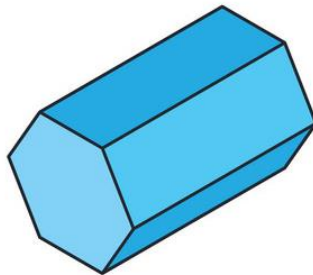
Cube



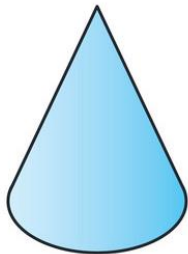
Cuboid



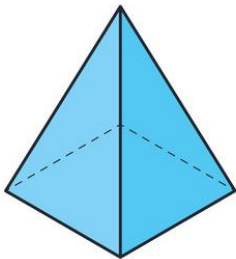
Cylinder



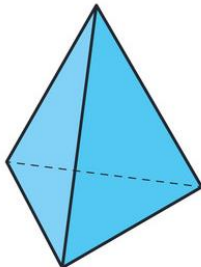
Hexagonal prism



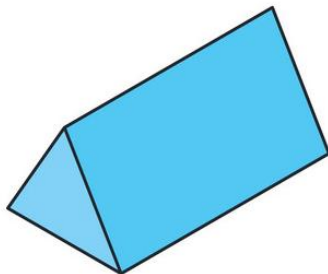
Cone



Square-based pyramid



Triangular-based pyramid



Triangular prism

	Initials & Date
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You could challenge them to find shapes in other places such as supermarket, park etc.

Banker



It is a great idea to let children familiarise themselves with the world of currency from an early age.

Place a pile of coins on the table and ask your child to estimate how much money there is. Then work out the total. The amount of coins you use will depend on your own child but it is best to start with a small amount and build up.

You could also place a pile of coins on the table and ask your child to pick up exactly 12p (or another suitable total). Encourage them to find **different combinations** of coins to make the total and to record this using a variety of representations in their jotters.



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Shop



For this activity you need to collect a range of items from around the house and put prices on them up to £1. You will also need a range of coins.

Ask your child to select the correct coins to pay for an item from the shop. You can score a bonus point if you find an alternative combination of coins to pay for the same item.

Ask your child a range of questions, such as:

"What is the fewest number of coins you can use?"

"What is the largest number of coins you can use?"

"How many different ways can you make that price?"

"If you paid with a £1 coin, how much change would you receive?"

"Which 3 items could you buy with £1?"

"Which 3 items couldn't you buy with £1? How much more money would you need?"



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Pairs

6	$10 \div 2$	0×5	12×2	$22 \div 2$	5×2	12×5	$20 \div 5$	8	10×10	5×5	$30 \div 10$	7
10	<ul style="list-style-type: none"> This is a game for at least 2 players. Place your starting counter on any square. Roll a dice and move that many places clockwise or anticlockwise. Place a counter over the square you have landed on and its matching square. When all squares are covered, the winner is the person with the longest continuous line. <p>To challenge your child, ask your child why they chose to move in that direction and support them to work strategically. You could also ask them to explain how they worked out the answer, e.g. <i>Did they solve 2×9 using the known fact 2×10? What did they visualise? What could they draw to prove their answer?</i> Your child should use their maths jotter to show their mathematical thinking</p>											4
$70 \div 10$												$15 \div 5$
60												100
80												3
18												0
8												35
25												40
2×9	10×8	7×5	5	11	2×2	$16 \div 2$	$40 \div 5$	3	4×10	2×3	24	4

	Initials & Date
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Keep, Halve or Double



3	7	11	6	2	10
10	8	16	18	20	4
5	12	22	5	24	9
22	14	7	24	8	6
4	12	16	20	6	3
11	14	2	20	9	18

Player 1 rolls two 1-6 die and decides if they want to keep the total, halve it or double it. The answer is then selected on the board.

Ask you child **why** they have made that decision.

The first player to select 3 numbers in a line wins!

For example, if you rolled a 4 and 6, you could...

Keep the total (10)

Double the total ($10 \times 2 = 20$)

Halve the total ($10 \div 2 = 5$)

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Time Tellers

In Year 2, your child will learn to tell the time using analogue clocks to the nearest quarter hour, and then the nearest 5 minute interval. Look at a clock with your child and ask them to read and write the time. Encourage your child to describe the position of each hand when telling the time. Make this become part of your child's daily routine by asking them to read the time regularly.

As an additional challenge, you could ask your child a range of questions or set tasks, such as:

What is the time now? How do you know?

What will the time be in 10/15/30 minutes etc.?

If I put this in the oven for 20 minutes, when does it need taking out?

How many minutes are there until _____?

This TV show started at _____, how long has it been on for?

What time is bed time? How does the clock look at this time?

How many _____ can you do in one minute?

Time events and ask them to order the lengths of time.

Estimate how long it will take to _____, and then time the task.



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When it comes to times tables, speed and accuracy are important – the more facts your child remembers, the easier it is for them to do harder calculations.

Using your child's login details provided by the class teacher, support your child to practise their times tables online or using the app.

In Year 3, your child can play on the single player game 'Garage', and the multiplayer game 'Arena', in which they can play against rock stars from their class.

As an additional challenge, your child could pick a times table that they find most challenging, e.g. 7×5 , and find **as many ways to represent the calculation visually** in their jotters. They could also create their own 'derivation board' in which they **derive facts** from the given fact.

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Please use the following pages keep record of the activities your child has completed at home each week and to comment on your child's progress in mathematics.

Week Beginning:	Weekly Activity details and Comment	Week Beginning:	Weekly Activity details and Comment

Week Beginning:	Weekly Activity details and Comment	Week Beginning:	Weekly Activity details and Comment

Week Beginning:	Weekly Activity details and Comment	Week Beginning:	Weekly Activity details and Comment

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