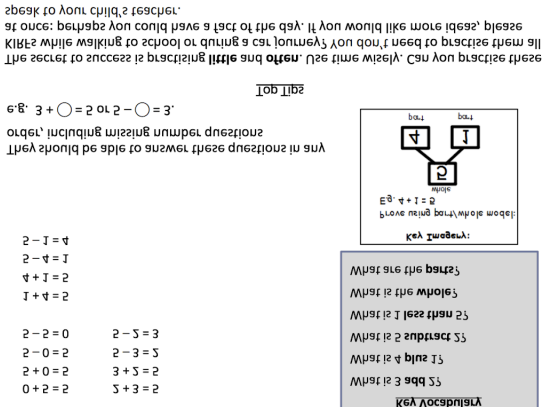
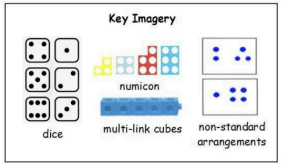
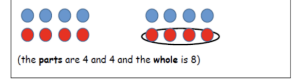
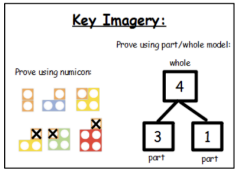
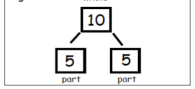
Mental Maths- helping at home

	Year 1	
Autumn 1		**I know double facts up to 5 + 5 and halves of even numbers to 10.** By the end of this half term, children should know the following facts. The aim is for them to recall these facts **instantly**. 0 + 0 = 0 — Half of 0 = 0 1 + 1 = 2 — Half of 2 = 1 2 + 2 = 4 — Half of 4 = 2 3 + 3 = 6 — Half of 6 = 3 4 + 4 = 8 — Half of 8 = 4 5 + 5 = 10 — Half of 10 = 5 **Key Vocabulary** What is double 9? What is half of 6? **Key Imagery:** Prove using an array: e.g. 4 + 4 = 8 Prove using numicon Prove using part/whole model: e.g. half of 8 = 4 whole 4; part 2; part 2
How to?	*Use practical resources – you have three potatoes on your plate and you give someone two more. Can you predict how many you will have now?*	*Use practical resources – Children have one potato on a plate and you give them three more. Can they predict how many they will have now?* *Make a poster – You can use numicon. You can find pictures of the Numicon shapes here: bit.ly/NumiconPictures – Childern could make a poster showing the different ways of making 5.* *Play games – You can play number bond pairs online at www.conkermaths.com and then see how many questions you can answer in just one minute.*
Autumn 2		**I know number bonds for each number to 6.** By the end of this half term, children should know the following facts. The aim is for them to recall these facts **instantly**. 0 + 1 = 1; 1 + 0 = 1; 0 + 2 = 2; 1 + 1 = 2; 2 + 0 = 2; 0 + 3 = 3; 1 + 2 = 3; 2 + 1 = 3; 3 + 0 = 3 0 + 4 = 4; 1 + 3 = 4; 2 + 2 = 4; 3 + 1 = 4; 4 + 0 = 4; 0 + 5 = 5; 1 + 4 = 5; 2 + 3 = 5; 3 + 2 = 5; 4 + 1 = 5; 5 + 0 = 5 0 + 6 = 6; 1 + 5 = 6; 2 + 4 = 6; 3 + 3 = 6; 4 + 2 = 6; 5 + 1 = 6; 6 + 0 = 6 **Key Vocabulary** What is 3 **add** 2? What is 2 **plus** 2? What is 5 **take away** 2? What is 1 **less than** 4? What is the **whole**? What are the **parts**? **Key Imagery:** Prove using whole/part model: Eg- 2+1=3 whole 3; part 2; part 1 They should be able to answer these questions in any order, including missing number questions e.g. 3 + ◯ = 5 or 4 – ◯ = 2.

<table>
<tr><td>How to?</td><td><u>Use your fingers</u> – play a game of rock, paper, scissors, but instead you and have children match the number of fingers shown. Can they identify your number immediately?
Use practical resources - Play games using a dice, play dominoes and ask children what the numbers are, use a dice to determine how many hops on a hopscotch.</td><td>Ping Pong – In this game, the teacher says, “Ping,” and the child replies, “Pong.” Then the parent says a number and the child doubles it. For a harder version, the adult can say, “Pong.” The child replies, “Ping,” and then halves the next number given. Practise online – Go to www.conkermaths.com and see how many questions you can answer in just 90 seconds.</td></tr>
<tr><td>Spring 1</td><td>I can recognise quantities up to 5 without counting (subitise).
By the end of this half term, children should know the following facts. The aim is for them to recall these facts instantly.
▸ Children should be able to look at a group of objects and be able to recognise the quantity immediately.
▸ They may do this by recognising the full quantity or by recognising the quantities within in e.g. seeing a 4 and a 1 and thus knowing this is 5.
<u>Key Vocabulary</u>
What number do you see?
What numbers can you see hidden inside this number?
I see 5.
I see a 3 and a 2 which is 5.
<u>Key Imagery</u>
 
</td><td>I know doubles and halves of numbers to 10.
By the end of this half term, children should know the following facts. The aim is for them to recall these facts instantly.
0 + 0 = 0
1 + 1 = 1
2 + 2 = 4
3 + 3 = 6
4 + 4 = 8
5 + 5 = 10
6 + 6 = 12
7 + 7 = 14
8 + 8 = 16
9 + 9 = 18
10 + 10 = 20
½ of 0 = 0
½ of 2 = 1
½ of 4 = 2
½ of 6 = 3
½ of 8 = 4
½ of 10 = 5
<u>Key Vocabulary</u>
What is double 9?
What is half of 6?
What is the whole?
What is the parts?
<u>Key Imagery:</u>
Prove using array:
Eg- 4 + 4 = 8
Prove using array using grouping
½ of 4 = 2
 
(the parts are 4 and 4 and the whole is 8)</td></tr>
<tr><td>How to?</td><td><u>Use practical resources</u> – Play games using a dice, play dominoes and ask what the numbers are, use a dice to determine how many hops on a hopscotch.
<u>Use your fingers</u> – play a game of rock, paper,scissors, but instead you have to match the number of fingers shown. Can children identify your number immediately?
<u>Play hidden quantity games</u> – hide one, two and three objects under 3 identical cups and swap them around. Can children follow the number 4? Once the cup is lifted, can they subitise the number of objects underneath?</td><td><u>Play games</u> – You can play number bond pairs online at www.conkermaths.com and then see how many questions you can answer in just one minute.</td></tr>
<tr><td>Spring 2</td><td>I know 1 more and 1 less than any given number up to 10.
By the end of this half term, children should know the following facts. The aim is for them to recall these facts instantly.
0 + 1 = 1
1 + 1 = 2
1 – 1 = 0
2 + 1 = 3
2 – 1 = 1
3 + 1 = 4
3 – 1 = 2
4 + 1 = 5
4 – 1 = 3
5 + 1 = 6
5 – 1 = 4
6 + 1 = 7
6 – 1 = 5
7 + 1 = 8
7 – 1 = 6
8 + 1 = 9
8 – 1 = 7
9 + 1 = 10
9 – 1 = 8
10 + 1 = 11
10 – 1 = 9
<u>Key Vocabulary</u>
What is 1 more than 6?
What is 1 less than 10?
<u>Key Imagery:</u>
Prove using part/whole model:
Prove using numicon:
 
</td><td>I know number bonds to 10.
By the end of this half term, children should know the following facts. The aim is for them to recall these facts instantly.
0 + 10 = 10
10 + 0 = 10
10 – 10 = 0
10 – 0 = 10
1 + 9 = 10
9 + 1 = 10
10 – 9 = 1
10 – 1 = 9
2 + 8 = 10
8 + 2 = 10
10 – 8 = 2
10 – 2 = 8
3 + 7 = 10
7 + 3 = 10
10 – 7 = 3
10 – 3 = 7
4 + 6 = 10
6 + 4 = 10
10 – 6 = 4
10 – 4 = 6
5 + 5 = 10
10 – 5 = 5
<u>Key Vocabulary</u>
What is 3 add 2?
What is 2 plus 2?
What is 5 take away 2?
What is 1 less than 4?
What is the whole?
What are the parts?
<u>Key Imagery:</u>
Prove using whole/part model:
Eg- 10 - 5 = 5
 

They should be able to answer these questions in any order, including missing number questions e.g. 6 + ◯ = 10 or 10 – ◯ = 3.</td></tr>
<tr><td>How to?</td><td><u>Use practical resources</u> – Children have 5 carrots on their plate – how many would they have if you gave them one more? How many would they have if you took one away?</td><td><u>Play games</u> - https://www.topmarks.co.uk/maths-games/daily10
Children have an ipad (each or between 2), sacn the QR code on the board and play the addition/subtraction number bonds to 10. How many can they get?</td></tr>
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<td>Summer 1</td>
<td>
I can count, read and order numbers to 20.

By the end of this half term, children should know the following facts. The aim is for them to recall these facts instantly.

Children should be able to count (in order) and read from 0 to 20 in numerals (not words).

Children should know what number comes next e.g. 17 comes after 16.

Children should know what number comes before a number e.g. 12 comes before 13.

<u>Key Vocabulary</u>
Numbers 1 – 20
What number comes before 10?
What number comes after 19?
</td>
<td>
I can tell an o’clock or half past time.

By the end of this half term, children should know the following facts. The aim is for them to recall these facts instantly.

Children need to be able to tell the time using a clock with hands. This target can be broken down into several steps.
• I can tell the time to the nearest hour.
• I can tell the time to the nearest half hour.

<u>Key Vocabulary</u>
Twelve o’clock
Half past two
Minute hand
Hour hand
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<td>How to?</td>
<td><u>Use practical resources</u>: - Count your toys as you put them away. - Have a go at a number treasure hunt around the school. Once you have found all the numbers, can you peg them up in order on the washing line? - Put number stickers on your toy cars. Can you line them up in order now? If one is taken away, can you spot what number should be in the gap?</td>
<td><u>Talk about time</u> - Discuss what time things happen. When does your child wake up? What time do they eat breakfast? Make sure that you have an analogue clock visible in your house or that your child wears a watch with hands and discuss what they notice as the hands move.
<u>Play</u> “What’s the time Mr Wolf?”– You could also give your child some responsibility for watching the clock:
<u>Read books about</u> time - It’s about time by J.Murphy, Telling time by J.Older and What’s the time, Mr Wolf? By D.Gliori. Making times on a clock face- Why not have a go at making your own clocks and then practice making an o’clock or half past time or make times using the program at http://mathsframe.co.uk/en/resources/resource/90/itp_clock</td>
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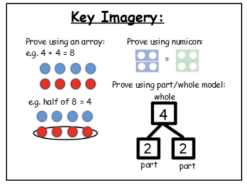
<td>Summer 2</td>
<td>
I know double facts up to 5 + 5 and halves of even numbers to 10.

By the end of this half term, children should know the following facts. The aim is for them to recall these facts instantly.

0 + 0 = 0 Half of 0 = 0
1 + 1 = 2 Half of 2 = 1
2 + 2 = 4 Half of 4 = 2
3 + 3 = 6 Half of 6 = 3
4 + 4 = 8 Half of 8 = 4
5 + 5 = 10 Half of 10 = 5

<u>Key Vocabulary</u>
What is double 9?
What is half of 6?

<u>Key Imagery:</u>


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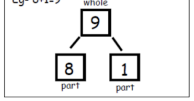
<td>
I know number bonds for each number to 10.

By the end of this half term, children should know the following facts. The aim is for them to recall these facts instantly.

0 + 7 = 7 0 + 8 = 8 0 + 9 = 9 0 + 10 = 10
1 + 6 = 7 1 + 7 = 8 1 + 8 = 9 1 + 9 = 10
2 + 5 = 7 2 + 6 = 8 2 + 7 = 9 2 + 8 = 10
3 + 4 = 7 3 + 5 = 8 3 + 6 = 9 3 + 7 = 10
4 + 3 = 7 4 + 4 = 8 4 + 5 = 9 4 + 6 = 10
5 + 2 = 7 5 + 3 = 8 5 + 4 = 9 5 + 5 = 10
6 + 2 = 8 6 + 2 = 8 6 + 3 = 9 6 + 4 = 10
7 + 1 = 8 7 + 1 = 8 7 + 2 = 9 7 + 3 = 10
8 + 0 = 8 8 + 0 = 8 8 + 1 = 9 8 + 2 = 10
9 + 0 = 9 9 + 1 = 10
10 + 0 = 10

<u>Key Vocabulary</u>
What do I add to 5 to make 10?
What is 10 take away 6?
What is 3 less than 10?
How many more than 2 is 10?
What is the whole?
What are the parts?

<u>Key Imagery:</u>
Prove using whole/part model:
Eg- 8+1=9


They should be able to answer these questions in any order, including missing number questions e.g. 1 + ◯ = 10 or 9 – ◯ = 8.
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<td>How to?</td>
<td><u>Play Ping Pong</u> - For doubles, the adult says ‘ping’ and the child replies with ‘pong’. Then the adult says a number and the child doubles it in response. - For halves, the adult says ‘pong’ and the child replies with ‘ping’. Then the adult says a number and the child halves it in response.</td>
<td><u>Play games</u> – Number bond tennis. Children can keep score with a partner of the total number of ‘bonds’ they bat back. One person says ‘9’ and the other says ‘1’. Do this in the quickest time possible. Children must state all addition facts before moving on to ‘round 2’ – the takeaway round.</td>
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	Play games online - https://kids.classroomsecrets.co.uk/resource/reception-doubling-game/	