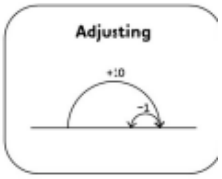
Y2 Week 1 / 2 and 3



Activities for Home

Dear Families
This week at home we are learning to use facts we know already to work out calculations that we don't know yet. We call this strategy 'Adjusting'. Using what we know to work out what we don't yet know is a really important skill in maths. Here are a couple of examples of what we have learnt:

Adding 9: We have learnt that we can add 9 by first adding 10 and then adjusting. E.g.,

$$6 + 10 = 16$$ (1 less, 1 less)
$$6 + 9 = 15$$

Near Bonds to 10: We have learnt that we can solve some additions by noticing that they are one more than a bond to 10. E.g.,

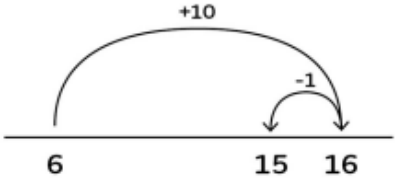
$$3 + 7 = 10$$ (1 more, 1 more)
$$3 + 8 = 11$$

Your children have learnt other ways to calculate these over the last few weeks, but we've taught adjusting as it is such a useful strategy in maths. If you see your child stuck on calculations, or starting to count on their fingers to solve a calculation, talk to them about any facts they already know which could help them work out this new calculation. You don't need to be the expert – it is just about talking about numbers and different ways to work things out with your child.

Here are a couple of simple activities which use adjusting which you could do with your child:

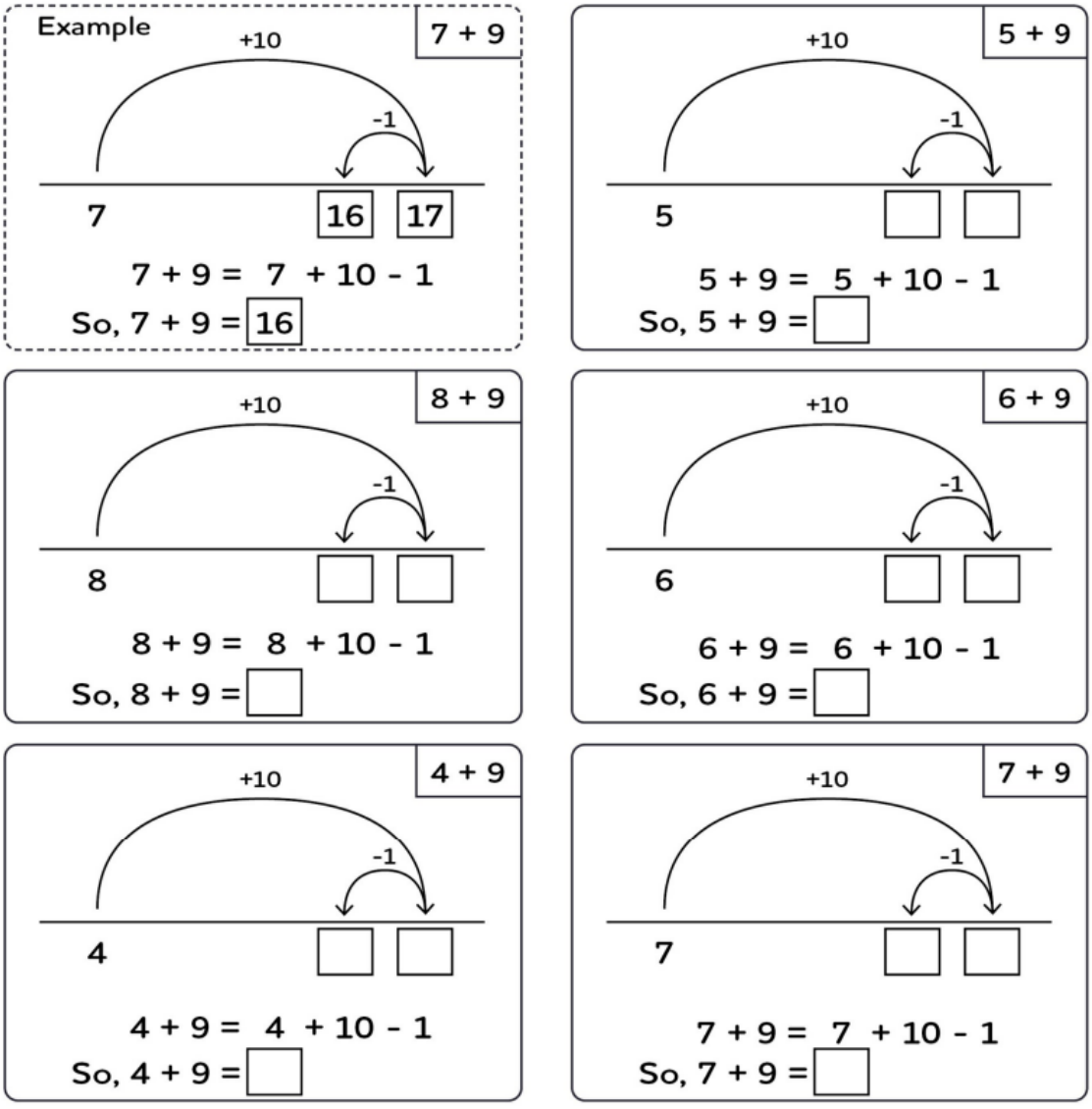
Bond to 10 or one more?
Say a pair of numbers – sometimes a pair which make 10 (such as 4 + 6) or sometimes a pair which are one more than this (such a 4 + 7). Your child simply has to shout out 'Bond to 10' or 'One more than a bond to 10'. Discuss the relationship with your child, and that the pairs which are one more than a bond to 10 will always make 11. "Yes that is right, 4 + 6 equals 10 so 4 + 7 must equal 11."

Add 10, add 9
Say a number from 2 to 9. Then help your child to first add 10 and then link this to adding 9. For example if you say 6, your child can then say "6 + 10 equals 16 so 6 + 9 equals 15."
You may want to write the additions down for your child, just like at the top of this sheet. At school we have also been using a number line to help us understand this:



So, 6 + 9 = 6 + 10 - 1
= 15

Add 9 by adding 10 and subtracting 1. Fill in the boxes.



Talking Tip

This exercise uses a number line to help your child make sense of the 'Adjusting' strategy. Encourage your child to look at the number line and add 10, using their Ten and A Bit knowledge. Then, subtract 1. Look at the number line to help your child see why adding 10 and subtracting 1 is the same as adding 9.

Reinforce their learning with your language, such as, "That's right, 10 - 1 is 9, so if we want to add 9 we can also add 10 and subtract 1."

Use the 'adding 10' fact to solve the 'adding 9' equation. Fill in the boxes.

Example

7 + 10 = 17

1 less, 1 less

7 + 9 = 16

10 + 8 = ☐

1 less, 1 less

9 + 8 = ☐

10 + 5 = ☐

1 less, 1 less

9 + 5 = ☐

6 + 10 = ☐

1 less, 1 less

6 + 9 = ☐

8 + 10 = ☐

1 less, 1 less

8 + 9 = ☐

10 + 4 = ☐

1 less, 1 less

9 + 4 = ☐

10 + 7 = ☐

1 less, 1 less

9 + 7 = ☐

10 + 6 = ☐

1 less, 1 less

9 + 6 = ☐

Talking Tip

This exercise supports children to see the connection between adding 10 and adding 9. Remember it doesn't matter what order the calculation is written, 7 + 9 and 9 + 7 are both adding 9 calculations.

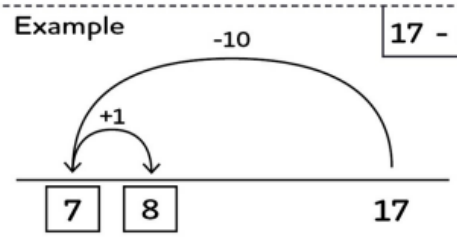
Start by adding 10 using their 'Ten and A Bit' knowledge gained in Stage 4. Help your child to see that because we are now adding 9, rather than 10, we must then subtract 1 from the total.

If your child struggles, encourage them to imagine a number line: first we added 10, then we subtracted 1; this is equivalent to adding 9.

Subtract 9 by subtracting 10 and adding 1. Fill in the boxes.

Example

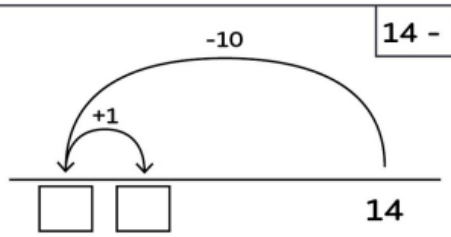
17 - 9



17 - 9 = 17 - 10 + 1

So, 17 - 9 = 8

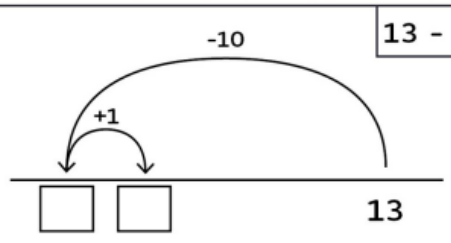
14 - 9



14 - 9 = 14 - 10 + 1

So, 14 - 9 = ☐

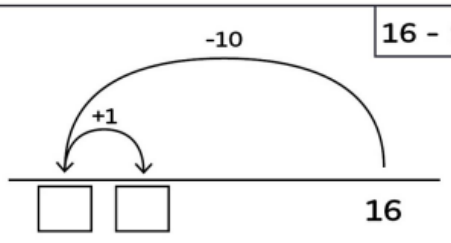
13 - 9



13 - 9 = 13 - 10 + 1

So, 13 - 9 = ☐

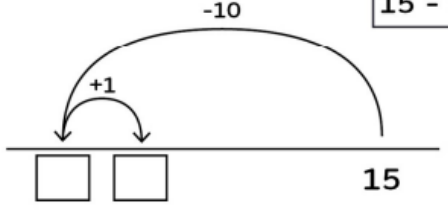
16 - 9



16 - 9 = 16 - 10 + 1

So, 16 - 9 = ☐

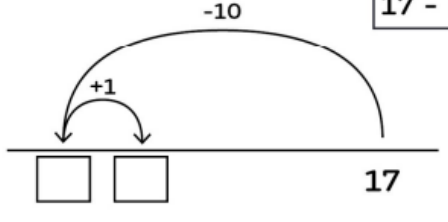
15 - 9



15 - 9 = 15 - 10 + 1

So, 15 - 9 = ☐

17 - 9



17 - 9 = 17 - 10 + 1

So, 17 - 9 = ☐

Talking Tip

This exercise uses a number line to help your child make sense of the 'Adjusting' strategy for subtraction. Encourage your child to look at the number line and subtract 10, using their 'Ten and A Bit' knowledge. Then, add 1. Look at the number line to help your child see why subtracting 10 and adding 1 is the same as subtracting 9.

Reinforce their learning with your language, such as, "That's right, 10 is 1 more than 9, so if we want to subtract 9, we can subtract 10 which is easy to do, and then we just have to add 1 back on."

Use the 'subtracting 10' fact to solve the 'subtracting 9' equation. Fill in the boxes.

Example

17 - 10 = 7 (1 less, 1 more)

17 - 9 = 8

14 - 10 = ☐ (1 less, 1 more)

14 - 9 = ☐

13 - 10 = ☐ (1 less, 1 more)

13 - 9 = ☐

16 - 10 = ☐ (1 less, 1 more)

16 - 9 = ☐

15 - 10 = ☐ (1 less, 1 more)

15 - 9 = ☐

17 - 10 = ☐ (1 less, 1 more)

17 - 9 = ☐

12 - 10 = ☐ (1 less, 1 more)

12 - 9 = ☐

13 - 10 = ☐ (1 less, 1 more)

13 - 9 = ☐

Talking Tip

This exercise supports children to see the connection between subtracting 10 and subtracting 9. Start by subtracting 10 using their 'Ten and A Bit' knowledge gained in Stage 4. Help your child to see that because we are now subtracting 9, rather than 10, we must then add 1 back on.

Your child may look at the pairs of equations and think that because we are subtracting 1 less in the second equation, the total must be 1 less too, when in fact the total is 1 more. Don't worry if your child finds this hard at first. Encourage them to imagine the number line to help them and explain, "First we need to subtract 10, then we need to add 1 back on; this is equivalent to subtracting 9."

Number Sense Maths

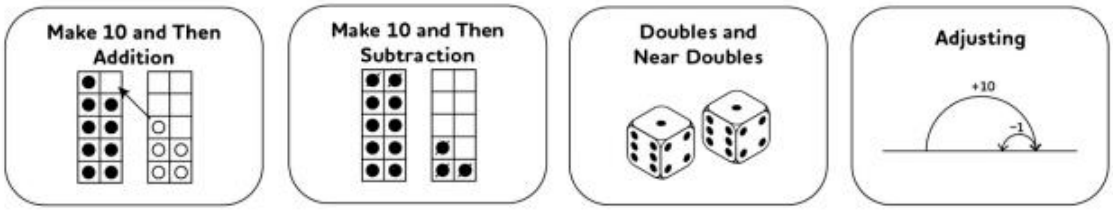
Summer 1 – Year 2

Y2 Weeks 4 / 5 and 6

Activities for Home

Dear Families

We have now learnt all the strategies that enable the children to add and subtract across 10 without counting on their fingers. Over the last few weeks we have sent home a page on each of them. Here are all the strategies that we have learnt:



When your child is adding or subtracting numbers across 10, encourage them to think about how they can solve them without counting on their fingers. Don't worry if you can't remember all of the strategies yourself. This is not about you being the expert. Just take the time to talk about numbers with your child, and ask them how they could think about working things out. Encourage your child to use what they know to work out what they don't know. You could ask your child questions such as the following:

- How might we think about that?

- Could we start by thinking about how many we need to add/subtract to make 10?

- Do we know any doubles or other facts which we could start with and then adjust?

- (For addition only) Does it help if we swap the two numbers being added, and think about 9 + 3 rather than 3 + 9?

- Can you imagine that on the tens frame? Try to see it in your head.

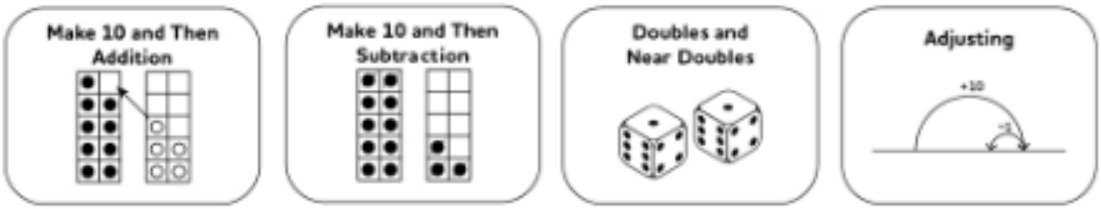
Being able to add and subtract across 10 is incredibly helpful when moving onto the next stage of maths because children need to be able to do lots of these calculations in column addition and column subtraction. They are also useful for mental calculation, e.g. knowing that 60 + 70 is 130. Keep playing the types of games and doing the types of activities that you have been doing over the last few weeks. The most important thing is for you and your child to talk about and enjoy playing with numbers together.

Stage 5 Book 5

Number Sense Maths

Summer 1 – Year 2

Discuss which strategy you would use to solve each calculation. Would any other strategies work too?



2 + 9	6 + 6	14 - 9
3 + 8	11 - 7	17 - 8
11 - 2	7 + 8	14 - 7
12 - 4	5 + 7	8 + 5
13 - 6	12 - 9	9 + 7
6 + 9	9 + 4	12 - 8

Talking Tip

The focus here is discussing the strategies that can be used to solve each fact.The Stage 5 strategy images are at the top of the page as prompts. Some Stage 3 strategies may also be applicable, e.g. Number Neighbours: Spot the Difference for 11 - 9.

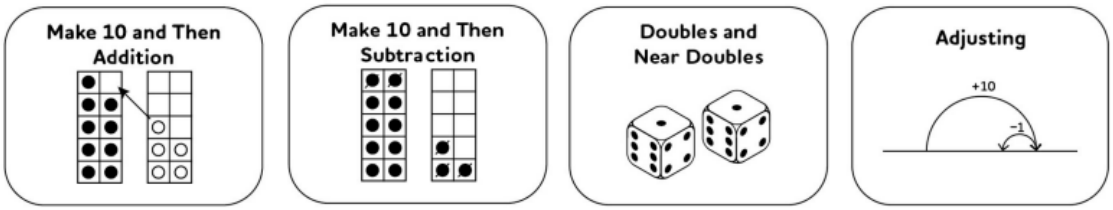
Some facts can be solved with multiple strategies; there is no fixed strategy for many of these. For example 9 + 8 can be solved by 'Make 10 and Then' (9 + 8 = 9 + 1 + 7), or by 'Near Doubles' (9 + 8 = 8 + 8 + 1), or by 'Adjusting' (9 + 8 = 8 + 10 – 1). Whatever strategy is used, the answer is 17. Talk together about which they find most natural and efficient.

Initially your child may need prompting to use the relevant strategy or strategies. Use language such as, "So, the calculation is 7 + 6, how could we solve that? We know that double 6 is 12. Does that help? Yes, 7 + 6 is a near double," or, "So, the calculation is 9 + 7. What do you notice about those numbers? Yes, they are next door odds so it's a hidden double".

Number Sense Maths

Summer 1 – Year 2

Discuss which strategy you would use to solve each calculation. Would any other strategies work too?



3 + 9	6 + 7	16 - 7
7 + 5	15 - 6	16 - 8
11 - 3	7 + 7	12 - 5
15 - 9	9 + 6	6 + 5
13 - 7	11 - 8	8 + 3
4 + 8	9 + 8	14 - 5

Talking Tip

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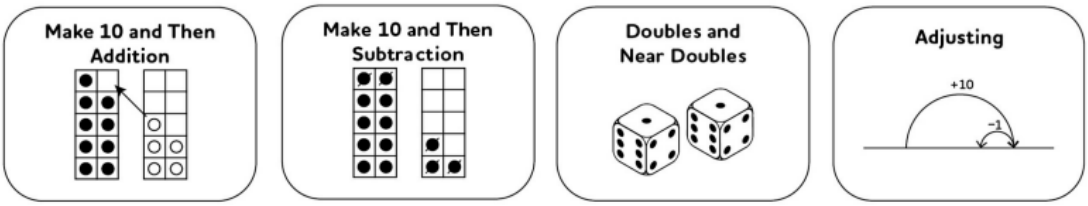
Initially your child may need prompting to use the relevant strategy or strategies. Use language such as, "So, the calculation is 9 + 8, how could we solve that? We know that double 8 is 16. Does that help? Yes, 9 + 8 is a near double," or, "So, the calculation is 7 + 5. What do you notice about those numbers? Yes, they are next door odds so it's a hidden double".

Number Sense Maths

Summer 1 – Year 2

Discuss which strategy you would use to solve each calculation. Would any other strategies work too?



9 + 3	5 + 8	17 - 9
4 + 9	14 - 6	13 - 4
14 - 8	8 + 8	12 - 6
15 - 7	8 + 6	7 + 4
13 - 8	11 - 9	5 + 6
8 + 9	9 + 5	11 - 4

Talking Tip

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Some facts can be solved with multiple strategies; there is no fixed strategy for many of these. For example 9 + 8 can be solved by 'Make 10 and Then' (9 + 8 = 9 + 1 + 7), or by 'Near Doubles' (9 + 8 = 8 + 8 + 1), or by 'Adjusting' (9 + 8 = 8 + 10 – 1). Whatever strategy is used, the answer is 17. Talk together about which they find most natural and efficient.

Initially your child may need prompting to use the relevant strategy or strategies. Use language such as, "So, the calculation is 8 + 9, how could we solve that? We know that double 8 is 16. Does that help? Yes, 8 + 9 is a near double," or, "So, the calculation is 8 + 6. What do you notice about those numbers? Yes, they are next door evens so it's a hidden double. Double 7 is 14."

Number Sense Maths

Summer 1 – Year 2