

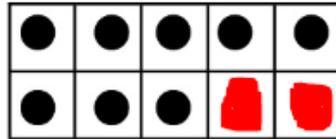
Year 1 - Mathematics - Learn from home timetable

Big Idea Concept: ADDITION & SUBTRACTION STRATEGIES

- I can use the addition strategy of counting on
- I can use the subtraction strategy of counting back
- I can use friendly numbers to make 10

Australian Curriculum Connection:

NA1.4 Represent and solve simple addition and subtraction problems using a range of strategies including counting on, partitioning and rearranging parts

Monday	Tuesday	Wednesday	Thursday	Friday
<p align="center">Launch and Tune In</p> <p>Fluency Tune In: Counting drill 1: Using number cards supplied, select 10 numbers and place all cards face down in a pile. Turn over one card, starting from the number displayed count on in ones for five numbers. E.g. if the card displayed is 15, student would look at the number and say 16, 17, 18,19, 20. Repeat this drill for all cards.</p> <p>Counting drill 2: Repeat the activity above this time count backwards in ones e.g. if the card is 15, student looks at the number and says 14, 13, 12,11,10.</p>	<p align="center">Launch and Tune In</p> <p>Fluency Tune In: Play dice game from Monday but this time include a blank card so student is practising counting on zero, one, two, three.</p> <p>Repeat Counting Drill 2: from Monday.</p>	<p align="center">Launch and Tune In</p> <p>Fluency Tune In: Using a small container/box either write or stick a numeral on each side. 3 small marbles/pebbles. Ask the child to say the number on the outside of the box and then count on as you drop the marbles/pebbles into the box. (the idea is for the student to hear the item drop into the box as they count).</p> <p>Repeat the process for counting back by having the marbles/pebbles in the container and taking them out and placing them in front of the student when counting backwards from the number displayed.</p>	<p align="center">Launch and Tune In</p> <p>Fluency Tune In Using the tens frame and counters/buttons make friendly 10 numbers and write/say the number</p>  <p>sentence. $8+2 = 10$ $2+8 =10$</p>	<p align="center">Launch and Tune In</p> <p>Today is consolidation day – choose a game or strategy that your child enjoyed or that needs some extra practice.</p>

Vocabulary in Mathematics

counting on, counting back, combine, plus, add, take away, minus, the difference between, total, more than, less than, double, *equals, *is equal to, is the same as, number sentence, strategy

* please refer to additional information below

<p align="center">Conceptual Development</p> <p>Focus Addition Strategy - Counting On</p> <p>Activity – Adding zero 1.Discuss what zero means – nothing, none, empty. Show students a collection of counters – say: if I add zero more counters how many will I have? if I take away zero counters, how many will I have? Establish that if we</p>	<p align="center">Conceptual Development</p> <p>Focus Subtraction Strategy - Counting Back</p> <p>Activity – Subtracting zero. 1. Discuss what zero means – nothing, none, empty. Show students a collection of counters – say:</p>	<p align="center">Conceptual Development</p> <p>Focus Exploring Friendly numbers to 10</p> <p>Activity – Combinations to 10 1.Use a tens frame and counters/buttons/pebbles of two different colours. 2.Ask the student to select 10 counters of each colour. 3. Looking at the 10s frame ask the student how many places</p>	<p align="center">Conceptual Development</p> <p>Focus Practising my strategies</p> <p>Activity – Choose a strategy Required a domino pack either paper or tiles. These will need to be sorted so the large numbers are taken out. 1. Each student selects a domino</p>	<p align="center">Conceptual Development</p>
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add or take away 0 our number does not change.

Activity – Addition Strategy Counting on

1. Start with a real-life problem: You have 5 biscuits and Mum gives you 1 more. How many do you have? AND You have 1 biscuit and Mum gives you 5 more. Act out.

2. Make a range of numbers 1-20 on a double ten frame, using counters, buttons, pebbles. Then place 8 in one colour – ask how many are there? Add 1 in another colour. Ask the student to count on 1 more, moving the counter up.



3. Ask: How much is 8 and 1? Write $8+1=9$ and $9=8+1$

4. Remind the students that this connects to 1 more than and the counting on done at the beginning of the lesson. Repeat this process as necessary multiple times.

5. When students are beginning to answer before adding the counter in, ask students if they can say/write the number sentence for adding one.

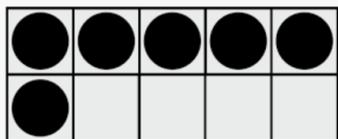
Have a number line available (a tape measure is a good substitute) so that students can demonstrate the strategy using a number line.

if I take away (subtract) zero counters how many will I have? If I add zero counters, how many will I have? Establish that if we add or take away 0 our number does not change.

Activity – Subtraction Strategy Counting back

1. Start with a real-life problem: *You have 5 biscuits and you give your sister 1. How many do you have?* Act out.

2. Make a range of different numbers 1-20 on a double ten frame using counters, buttons, pebbles. Then place 6 on a tens frame.



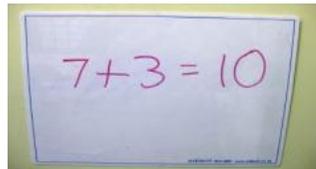
Ask: *How much is 6 take away 1?* Write $6-1=$ Ask the child to physically take one away and record the answer. $6-1=5$ and $5=6-1$

3. Remind the students how this connects with 1 less than and how it is like counting backwards. Repeat the process several times using different numbers writing the number sentence each time.

4. When students are beginning the answer moving the counter **away**, ask students if they can say/write the number

are available on the frame to put a counter on. (10)
4. Pose the question – what are the different ways that I can put my counters on the tens frame using both colours? Explore the different ways this can occur. E.g. 6 of one colour and 4 of another colour. 2 of one colour and 8 of the other colour.

5. Ask students to write their number sentence/story about 10 on their whiteboard.



6. Find all the different ways they can write a number sentence about 10 in a list. Look for patterns.

7. Are any of these *turn-around* number sentences/stories. E.g. Is $3+7=10$ a turn around of $7+3=10$?

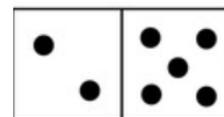
8. Write each number story about 10 on a list. Look for the patterns

These are called friendly numbers to make 10.

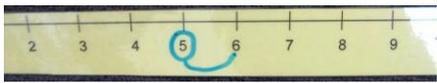
2. Ask each student to select a strategy they would use to add the total number of dots, for example: add zero; counting on; combinations to 10. Or the domino could be used to count back from the largest number. If this is the choice, ask the student to identify the biggest number and then count back.

e.g. I could use count on for this domino. $5+2=7$

Or I could use count back for this domino. $5-2=3$



- Using fingers and the dots as aids to assist with the strategy is permitted.
- Making mistakes and trying another strategy is to be praised and encouraged to try another strategy. Mistakes and figuring out how to have another go helps children be resilient learners and 'grows their brains'.



6. When students have mastered counting on 1 more, start again with counting on 2 and 3.

7. **Dice game.** (requirements a dice and cards with one, two or three dots) Place the dot cards face down. Student rolls the dice and selects a card to count on the number of dots shown on the card selected. E.g. dice rolls four, student selects a card which has three dots so they count on 5,6,7 and say 4 add 3 equals 7.



sentence for taking away (or subtracting) one.
5. When students have mastered taking 1 away, start again with -2.

5. Use the number line to count back zero, one, or two from a given number.

Learning Journal

How can I use the strategy of counting on to help me with adding?

Learning Journal

How can I use of the strategy of counting back to help me with take away? Discuss with students what they notice happens to the original number when I am counting on and counting back. Record their thoughts and encourage them to give examples to illustrate their observation. What happens with zero?

Hint: - When I count-on I'm adding, the answer gets bigger. When I count-back I'm subtracting or taking away, the answer gets smaller.

Learning Journal

Can you draw the friendly partners that make 10 using your numeral cards?



Learning Journal

Write a sentence about each strategy and how it is used to help with Maths. Keep this as evidence of learning and add a comment yourself about how the student is mastering the strategies.

Learning Journal

Tens Frames card – blank (supplied as an appendix)

Counters, beads, buttons, pebbles – from around the home

Number line (supplied on following page)

Numbers to 20 (supplied following page)

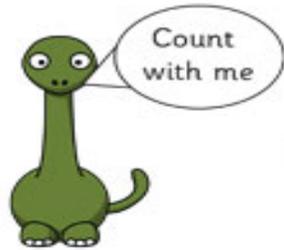
Dominoes – either tiles from home or supplied sheet as appendix. The supplied sheet of dominoes can also double as dot cards by cutting them up into the smaller squares.

Dice – from around the home

Additional Information:

*The word 'difference' has a specific meaning in this context, referring to the numeric value of the group. In everyday language, it can refer to any attribute. Students need to understand that the requirement to carry out subtraction can be indicated by a variety of language structures. The language used in the 'comparison' type of subtraction is quite different from that used in the 'take away' type.

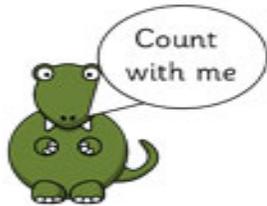
*Students need to understand the different uses for the = sign, eg $4 + 1 = 5$, where the = sign indicates that the right side of the number sentence contains 'the answer' and should be read to mean 'equals', compared to a statement of equality such as $4 + 1 = 3 + 2$, where the = sign should be read to mean 'is the same as'.



My number line



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My number line



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My number line



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1	2	3	4	5
6	7	8	9	10
11	12	13	14	15
16	17	18	19	20