Mathsercise

Year 1

Icon legend

Sheet	Keep	Prac work	Tutor	English Pack
Send-in	Digital	Safety	Maths Pack	Science Pack
Focused teaching and learning	Play learning situations	Real life situations	Routines and transitions	Investigations

Introduction

This booklet is designed to support your student's knowledge of number facts, number computation and content that underpins their understanding of mathematics.

The booklet has the following sections:

- Today's number
- Number facts — Addition and subtraction
- Let's calculate
- Everyday maths

It has been designed for tutors or teachers to use at their own discretion.

You may like to complete some of these activities as regular routines in the form of five-minute revision sessions each day or use them to reinforce and revise concepts that students have difficulty with. It is suggested that these activities be completed multiple times so that students work towards being flexible and confident mathematics learners.

With **Today's number**, students may choose a number or several numbers and then answer some of the activities.

To develop an understanding of **Number facts**, students need opportunities to:

- practise facts so that they can recall facts with fluency
- look for number patterns
- learn related facts together.

When learning number facts students can nominate:

- *Facts I know well*
- *Facts I do not know*
- *Facts I can work out*.

Visual models can be used to help students to learn number facts and to thoroughly develop knowledge.

Let's calculate is to practise calculating numbers. When teaching for understanding, students can begin to use concrete and visual representations and move along to symbolic representations.

The use of concrete material is appropriate for assisting all students in their mathematical development. The use of concrete materials will change as students progress throughout the year levels.

In **Everyday maths** students can be asked any practical mathematical questions that will help them in everyday life.

It may be useful to keep a separate exercise book for students to write their answers in or complete their working (if necessary).

Today's number

Number of the day

Have the students select and record a number, for example:

$$24$$

Choose some activities from the following options:

Activities	Examples
Write in words	twenty-four
Show in tens and ones	2 tens 4 ones
Add ten more	34
Show ten less	14
Count back two	22
Write the number before and after	23, 24, 25
Write an addition number sentence to equal today's number	20 + 4 = 24
Write a subtraction number sentence to equal today's number	30 – 6 = 24

Pick a number (use a pack of 1–100 cards)

Have the students:

- pick 10 cards
- place the cards face down
- turn two over
- decide whether to count on or count back from one card to the other.

Sequence a number (use a pack of 1–100 cards)

Have the students:

- pick several cards
- sequence them from largest to smallest or smallest to largest.

Number facts — Addition and subtraction

Practise 'Use counting'

- Give an addition problem (use a start number of 1–8) and 'count on one' (for example: 6 add 1) or 'count on two' (for example: 6 add 2).
- Have the student show the addition problem using the number track (for example: 6 add 1).

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
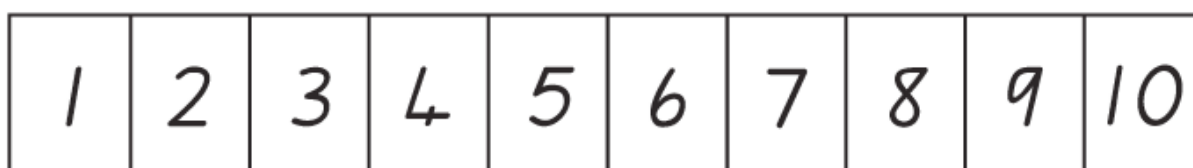
- Repeat using other addition number stories.

Practise 'Use double'

- Use empty jars and, for example, place four cubes in the first jar and four cubes in the second jar. Have the student find the total (for example: 4 and 4 is 8 or double 4 is 8).
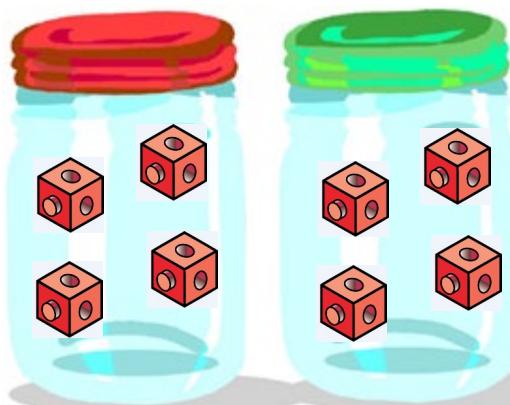
- Repeat using other addition number stories.

Make ten trains

- Give students 20 linking cubes (10 in one colour, 10 in another colour). Have the student make a train of ten using the combination of linking coloured cubes.
- Say and record the representation for 10 (for example: 5 orange cubes and 5 green cubes is 10).

- Repeat to show other representations for 10.

Think addition

- Have the students represent related number facts using materials including number fact grids, fact family triangles and part-part-whole models.

For example:

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

7	
4	3
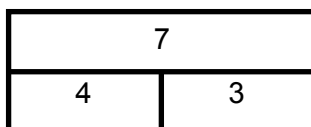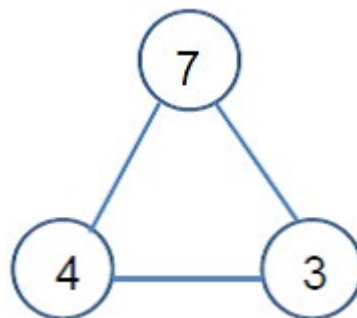
$3 + 4 = 7$

$4 + 3 = 7$

$7 - 4 = 3$

$7 - 3 = 4$

Dominoes

- Give students a set of dominoes.

Have the students:

- lay out all the dominoes with the dots showing
- point to a domino and ask what is the total number of dots
- sort the dominoes into matching pairs according to the total number of dots (for example: $5 + 2 = 4 + 3$, both have a total of 7).

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Let's calculate

Make addition sentences

- Deal each student three cards from a pack of 0–9 cards.

Have the students:

- use addition and subtraction to make as many different number sentences as possible
- say the total of the number sentence
  (for example: cards 3, 4, 5 is 3 + 4 = 7, 5 – 3 = 2, 5 + 4 + 3 = 12).

Show ten

Have the students:

- show different combinations for 10 using counters of two different colours and a ten frame
- verbalise the 'use ten' addition facts they created
- record each combination using the part-part-whole model and as a number sentence (on a strip of paper) and place under the ten frame. For example:

4	6
10	

7	3
10	
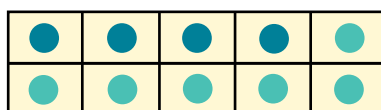
4 + 6 = 10   7 + 3 = 10

Frog jumps

Have students take turns to:

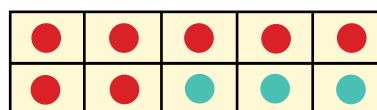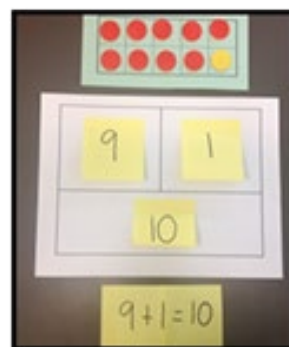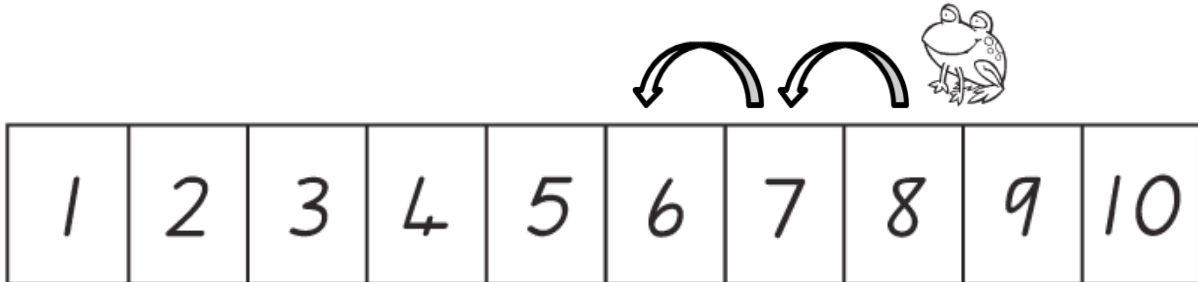- give a subtraction problem to their partner (use a start number from 3 to 10) and use 'take away one' or 'take away two', 'one less than', 'two less than' (for example: 8 take away 2, 2 less than 8)

- show the subtraction problem using the number track, for example:

- say the subtraction (for example: 8 take away 2 is 6)
- repeat using other subtraction number stories.

Addition and subtraction stories

Have students say:

- an addition problem (for example: *I have 10 blocks and 5 more blocks. How many do I have altogether?*)

- a subtraction problem (for example: *15 children are playing soccer on the school oval. 5 players leave the field to get a drink of water. How many children are left on the school oval?*).

Ask students to model the addition/subtraction number sentence using materials:
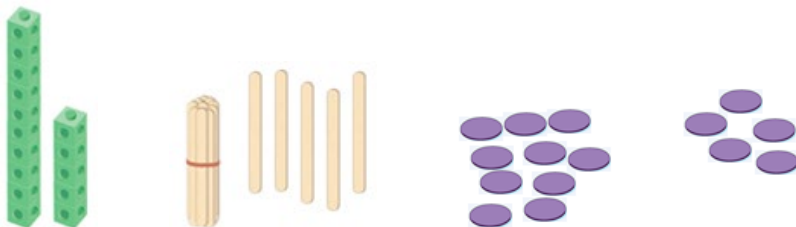
Demonstrate how to record the whole (for example: 10 + 5 = 15 and 15 – 5 = 10).

Bowling bottles

- Set up 10 plastic bottles or cans (partly filled with sand) on the floor and decide from how far away to bowl, then roll a small ball to knock over some of the bottles.

Have students take turns to:

- count how many bottles are left standing, then say the whole subtraction story (for example: *There are 10 bottles. I bowled (6) over. There are (4) bottles left. 10 take away 6 leaves 4).*

How many left?

- Place a number of items (up to 20) in a container and tell students how many are in the container.

Have the students:

- remove one or two items
- work out how many are left by starting with the number in the container, then counting back
- say the subtraction out loud.

Everyday maths

Time

Have the students:

- use a calendar (for the current year) to:
    ◦ identify and order days of the week
    ◦ identify today, tomorrow, yesterday, day after, day before
    ◦ say months of the year
    ◦ identify day, date and month.

Duration of time

Have the students:

- make comparisons of durations of time, for example:
    ◦ short time/long time, shorter/shortest time, longer/longest time
    ◦ fast/slow
    ◦ suggest activities that take a month, a week, a day, an hour
    ◦ use a clock (analogue and digital)
    ◦ ask about o'clock and half-past times.

Length

Have the students:

- make comparisons of objects that are:
    ◦ longer/shorter/longest/shortest
    ◦ wider/narrower/widest/narrowest
    ◦ thicker/thinner/thickest/thinnest
    ◦ taller/shorter/tallest/shortest.

Capacity

Have the students:

- make comparisons of objects/containers that:
    ◦ are full/empty
    ◦ hold more than/hold less than
    ◦ hold as much as
    ◦ hold the most/hold the least.

Location

Have the students:

- follow directions by moving:
    ◦ forwards/backwards/sideways
    ◦ left/right
    ◦ clockwise/anticlockwise.

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