# Easter Maths

Final Week of Term 1

or

First Week of Term 2


Cadbury

**Critical tip! Teachers do not need class sets of the chocolate eggs and bunnies – just a teacher modelling set. Beware of any food allergies.**

**For every task described, students could use coloured pompoms or counters to represent the eggs and teddy bears/character counters to represent the bunnies.**

**The teacher can model in the fishbowl using the real-life engaging materials (mini chocolate eggs and mini chocolate bunnies), then students could be brought to a fishbowl again at the halfway mark of the session for immediate feedback on their answers so far, with the teacher modelling with the real-life and engaging materials (choc eggs and bunnies).**

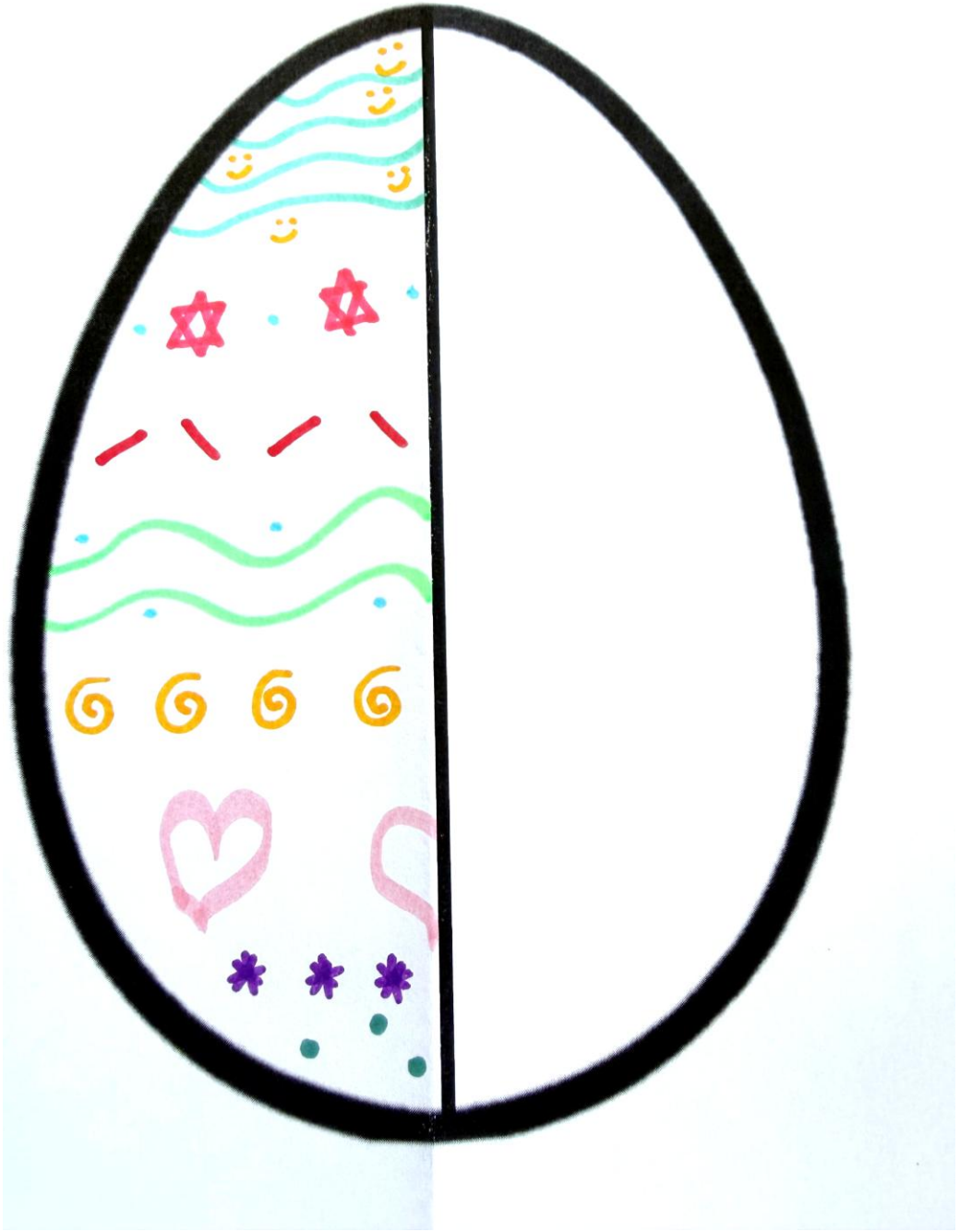
**Students who did a personal best job could then partake in the celebratory eating of the modelling materials at the end, but without the teacher needing to purchase a class set – just a modelling set for the fishbowls and immediate feedback fishbowls.**

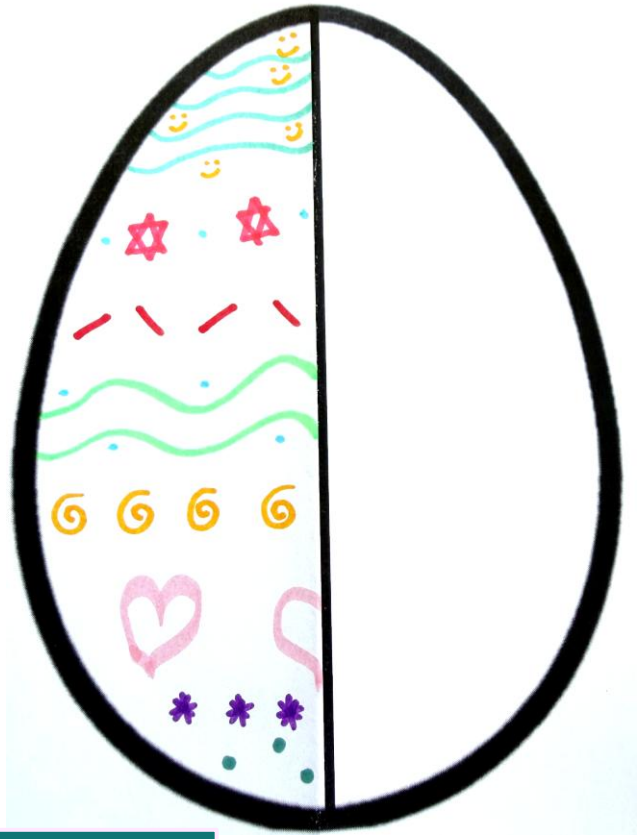
# Easter egg symmetry challenge

**Modelling tip:** Download the Easter Egg symmetry template.

Student A decorates half the egg.

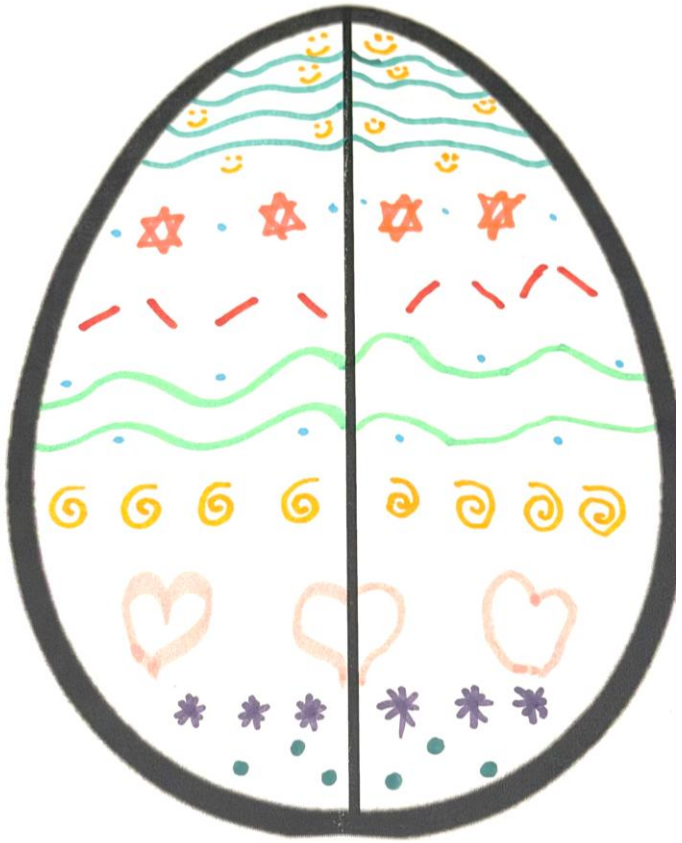
Swap with Student B, with a challenge to match it symmetrically, as though the decorations were reflected in a mirror.





Student A

Swap



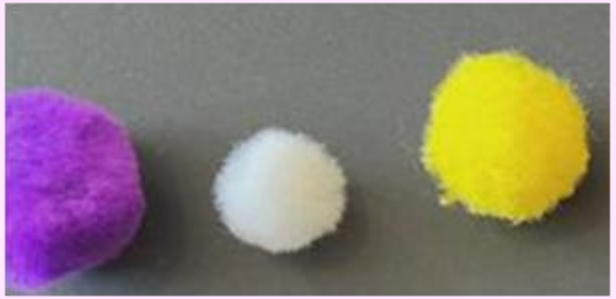
Student B

**Modelling tip:** Model an example in front of students, focusing on particularly challenging designs; for instance, the smiley faces and swirls on the above example. Emphasise the connections to mirrors and that the drawings should be the same distance from the centre line as the identical ones on the other side. If possible, use a little mirror and hold it on the cine as an immediate feedback tool.

Also show students images of butterfly wings, as a relatable example of real-life symmetry.

**For the following session, students can use coloured pompoms, instead of chocolate eggs, for the student work component.**

**Teacher fishbowl modelling can be with real Easter eggs if the teacher wishes, then students can eat the modelling set to celebrate if they have worked hard towards achieving the learning goal of the session.**



**Foundation and Year 1/2**

# Easter eggs pattern challenge

(with students using pompoms or counters for their own work, but teacher fishbowl modelling with eggs)

**See Early Years Planning Pack – Patterns – Unit 1 – Teaching Tips & Lessons 2-3**

**Modelling tip:** Model for students to use popsicle sticks/craft sticks, bits of string, kinder circles, or similar, to visually 'mark' the repeating unit. If students are experiencing patterns for one of the first times formally, explain a pattern as "something that happens again and again and again," and must be able to be seen by others (not to purely exist in your own mind). Model both examples and non-examples in the fishbowl.

**Lesson structure tips and critical teaching tips:**

- Students make a pattern with at least three units of repeat showing, then roam the classroom as a gallery walk to continue the patterns of others.
- Students do not simply add just one extra item to the pattern – at each 'gallery,' they must contribute an entire unit of repeat.
- Occasionally, pause the class and instruct students to contribute to the left-hand side of the next gallery they visit, rather than always continuing to the right.

# Pattern progression

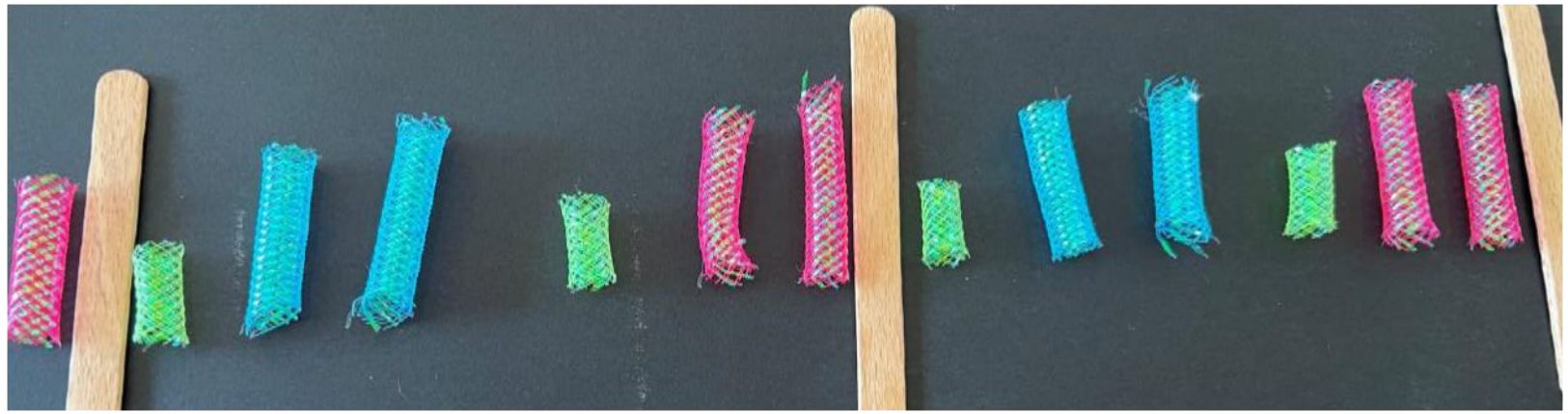
**Ideal fishbowl modelling sequence:**

Start with AB patterns.

Then AAB.

Then ABB.

Then ABC.



**Modelling tip:** Model for students to use popsicle sticks, small craft sticks, bits of string, kinder circles or similar, to visually ‘mark’ the repeating unit.

**Also see Early Years Planning Pack – Patterns – Unit 1 – Page 29**

Teach students to label their patterns. For example, this is a 5-pattern, because after 5 units it repeats. Also, it is an AABCB pattern.

# Pattern progression

**Modelling tip:** Be sure to include size patterns, not just colours:

**Extension:** Challenge a like-ability buddy with more complex patterns, or work with an extension buddy to create a gallery walk of very challenging patterns for fellow extension and high-mid students to solve (also include any student who is showing a strength in a patterns to attempt these extra challenges, and significantly more students to attempt more complex patterns during the repeat session on the second day):

# Nature patterns

Take advantage of the last of the warmer weather in some states, with outdoor maths sessions focused on creating nature patterns, using chalk to mark the repeating unit, before the cold sets in for the autumn and winter months.

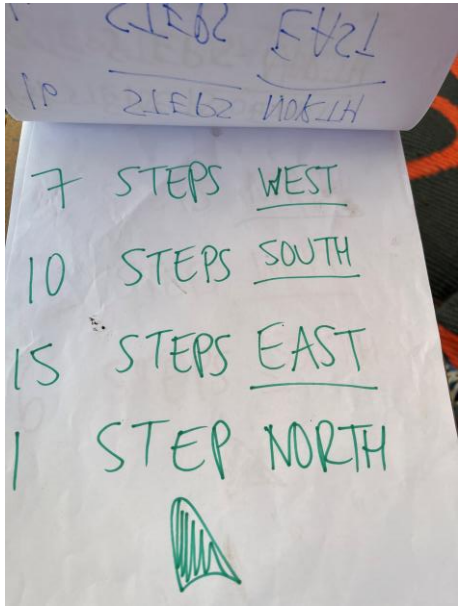
**Also see Early Years Planning Pack – Patterns – Unit 1 – Teaching Tips & Lessons 2-3**

For the following session, we recommend hiding coloured pompoms as ‘tokens’ that students collect at each treasure hunt location, instead of eggs,
or rocks decorated by students, for the student work component.


Students who do excellent work during the treasure hunt can partake in an egg eating feast after the session, potentially paying for their Easter eggs with their found tokens.

**Year 1/2 with positional language and Year 3/4 with cardinal directions**

# Egg hunts positional language or cardinal directions, plus paces or measurements




**Modelling tip:** The teacher creates hunt instructions around the playground or any outdoor space (with set boundaries) either using the language forward/backwards/left/right or north/south/east/west, with paces or metre measurements.

Students in the photo above are using rulers shaped as compasses, with initials written for Forwards, Backwards, Left and Right on this compass. In higher levels, these words could be substituted for North, East, South, West.

In later sessions, students could create the directions for one another with a teacher check before the hunt.

13 STEPS SOUTH
16 STEPS EAST
7 STEPS NORTH

16 STEPS NORTH
14 STEPS EAST
4 STEPS SOUTH

7 STEPS EAST
8 STEPS NORTH
5 STEPS WEST
2 STEPS NORTH

# Best buys chocolate

Which chocolate offers you more grams per dollar?

**Years 6-7**

**See the Years 3-6 Planning Package – Fractions – Unit 8**

## Best Buy Bars of Chocolate

You are starving and craving as much chocolatey/candy goodness as possible.

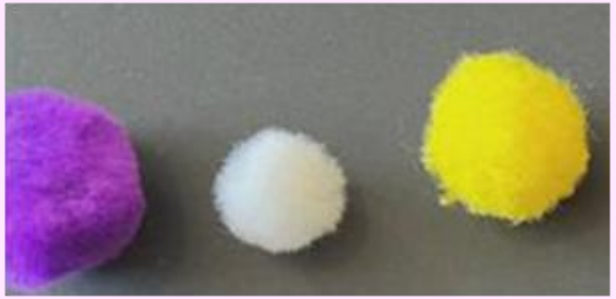
You are so hungry you do not care about the brand – you just need as much food as possible!

Organise all these chocolate/confectionary brands, in terms of best and worst value per gram, aiming for the best value per gram.

| | | |
|---|---|---|
|  $7 for 180 grams |  $4.20 for 170 grams |  $1 for 35 grams |
|  $5 for 126 grams |  $2.20 for 27 grams |  $1 for 47 grams |
|  $1.25 for 48 grams |  $2.50 for 38 grams |  $1 for 45 grams |

**For the following session, we recommend using coloured pompoms or counters, instead of eggs, for the student work component.**

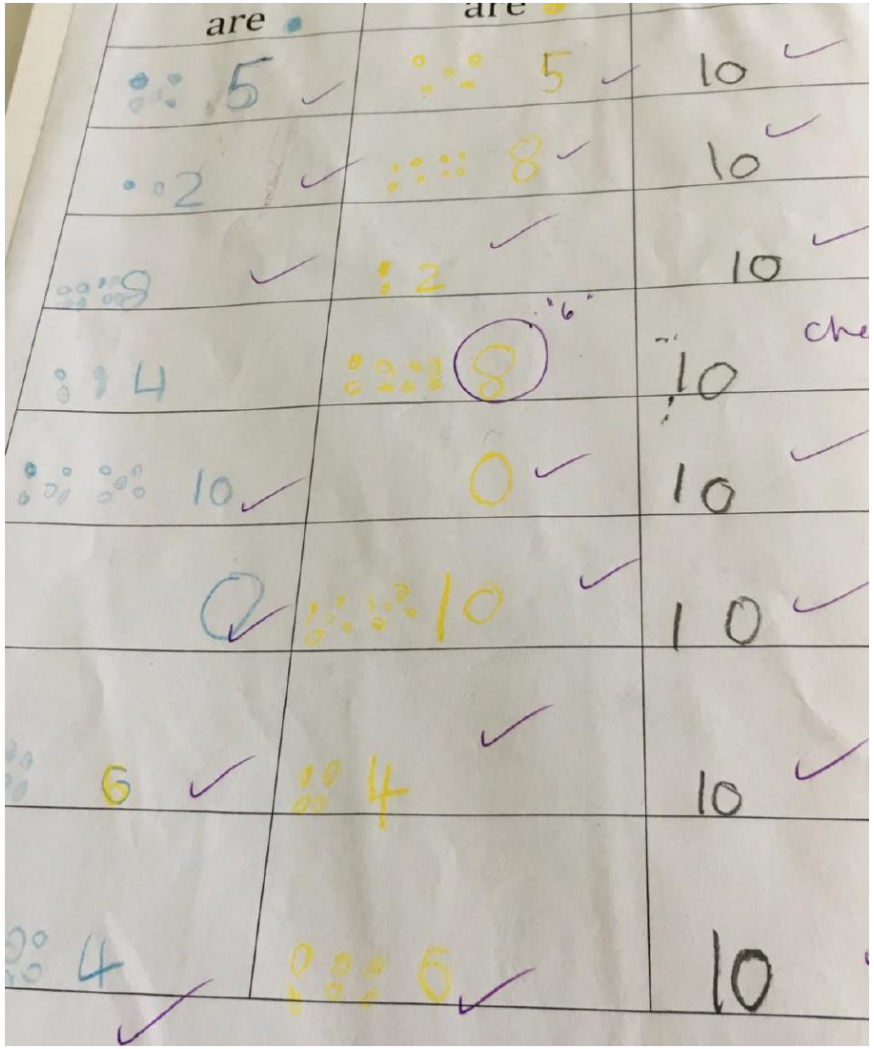
**Teacher fishbowl modelling can be with real Easter eggs if the teacher wishes, then students can eat the teacher modelling set to celebrate if they work hard towards achieving the learning goal of the session.**



Foundation and Year 1/2

# Ways to make eggs in a basket (part-part-whole up to 10)


**Modelling tip:** Start with 10 pompoms/counters/eggs in the centre of two bowls. Student A rolls a 10-sided dice, or pulls a card, for how many they found on the 'Easter hunt,' placing those in their bowl. Student B gets the rest, placing those in their bowl.
Record the 10 fact and repeat.
Students could use three-column charts, equations or number bond templates (see *Addition Unit 4* for number bonds, or see *Place Value Unit 5* for three-column *I see* templates).



Foundation and Year 1/2

# Ways to make eggs in a basket (part-part-whole up to 10)

**Early Years Planning Pack – Addition – Unit 5 – Lesson 3**

**Extension 1:** Try teen totals.

**Extension 2:** If each egg is worth 10 cents, what is your bowl worth at the end of each hunt? Record the matching equation that shows the value of each bowl as an addition equation.

**Extension 3:** Record as an addition of fractions (2/10 + 8/10 = 10/10), reading this as, "I found 2 out of 10 of the eggs. You found 8 out of 10 eggs. Altogether, that is 10 out of 10 eggs found, so the whole lot/whole collection of eggs was found."

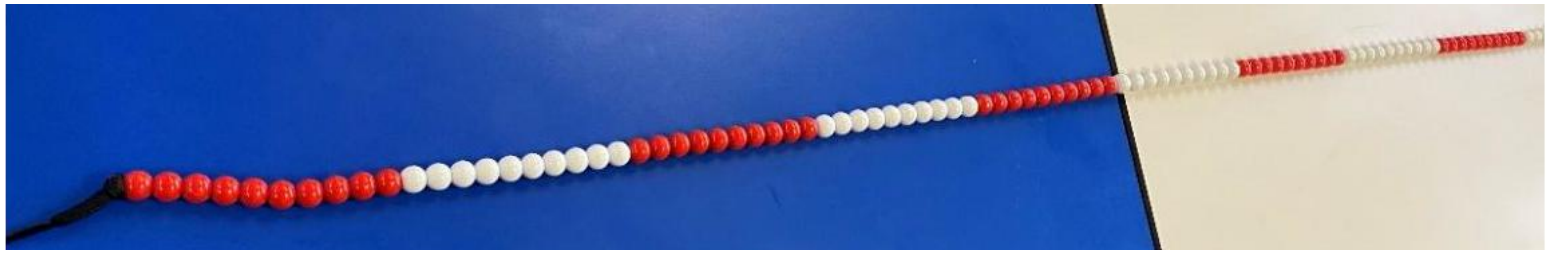
**Extension 4:** Also consider, if the entire collection of eggs is worth $1, what each egg is worth in cents, and therefore percent and as a decimal in terms of money. See the main Fractions folder of the *New 3-6 Package* and peruse the *Share $1 Investigation,* to establish strong foundations for converting fractions into decimals and percentages, as a common extending prompt for very advanced students for the rest of the year. However, it is critical these extension students complete the Share $1 investigation with coins before using this extending prompt to develop genuine conceptual understanding of how to perform the conversions.

Years 1-4

# Egg tug-of-war partitioning (ways to make 10, 20, 60, 100)

**Early Years Planning Pack**
**Place Value – Unit 12 – Lesson 9**

**Years 3-6 Planning Pack**
**Addition – Unit 4 – Lesson 4**

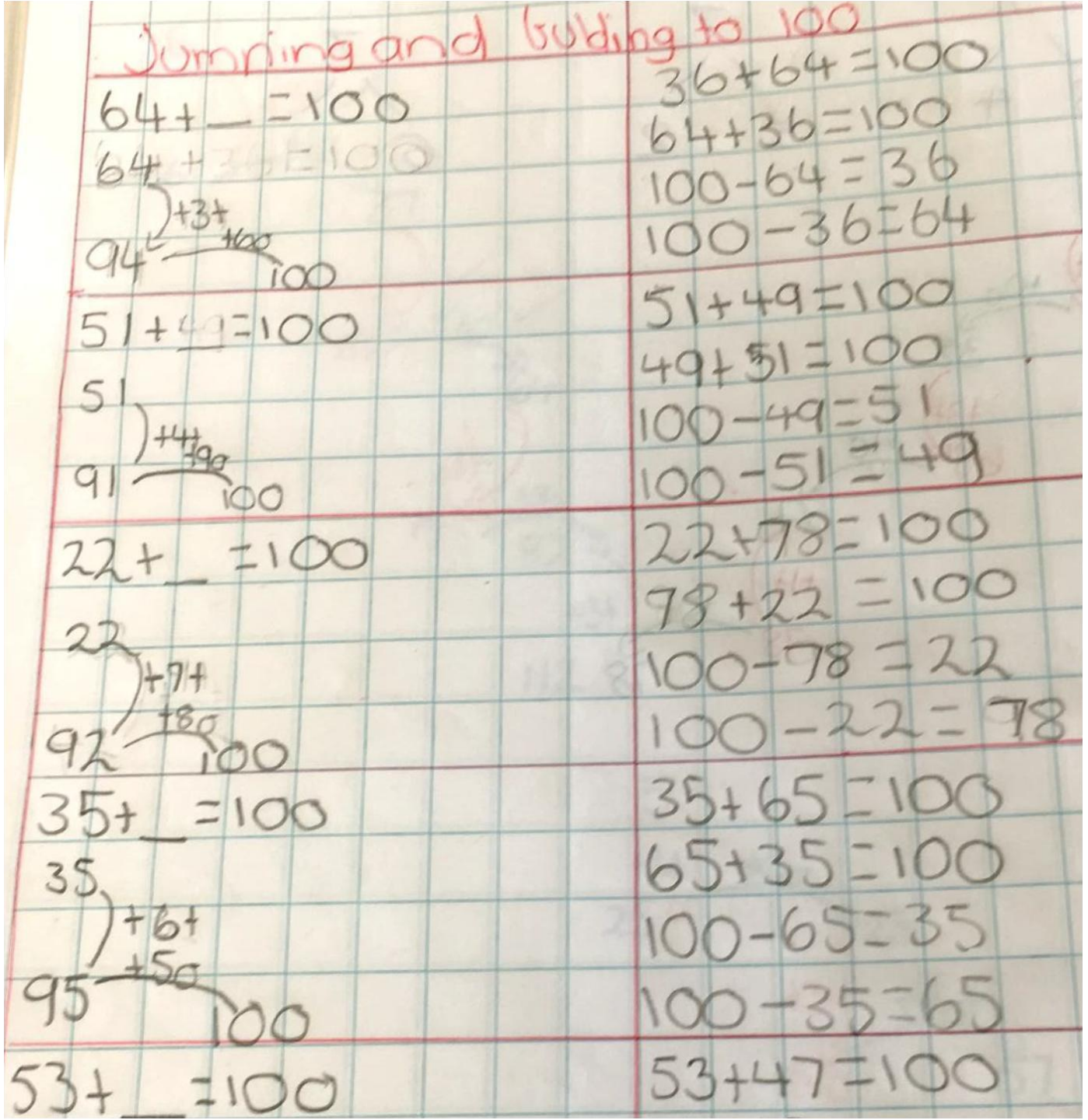


**Modelling tip:** Using 'tug-of-war' bead sliders. Earn the 'eggs' on the slider by rolling dice to collect them. Verbalise what is on your side and what your partner is 'hiding' beneath their hand on their side (saying the part-part-whole). For example, "I have 38 eggs, you must have 62 eggs, because 38 + 62 = 100." The misconception for students is that 38 and 72 is 100. If correct, keep the rolled eggs on your side of the tug-of-war/egg hunt. If incorrect, give the rolled eggs for that turn back to your partner.

**Differentiation:** Alter the size of the slider. Support students use a 10-egg slider with a 3-dot dice (starting with 5 on each tug-of-war side). Mid-range students start with a 20 slider with a 6-sided dice (10 on each side). Extension can start with 60 on the slider (20-sided dice, 30 beads on each side), to replicate a clock (27 minutes past, 33 minutes to go). Further extension into the 100 slider, then seeing the 100 as 1 whole made of 100 parts, recording the decimal as 38/100, 0.38, 38% and the matching addition equations in all forms (as a fraction, decimal and percentage).

| Out of 100 | Fraction | Decimal (money cost) |
|---|---|---|
| 47 out of 100 | $\frac{47}{100}$ Reading this as "47 out of 100" | 47 cents<br>$0.47<br>0.47 |

**Years 3-6 Planning Pack – Addition – Unit 4 – Lesson 4**

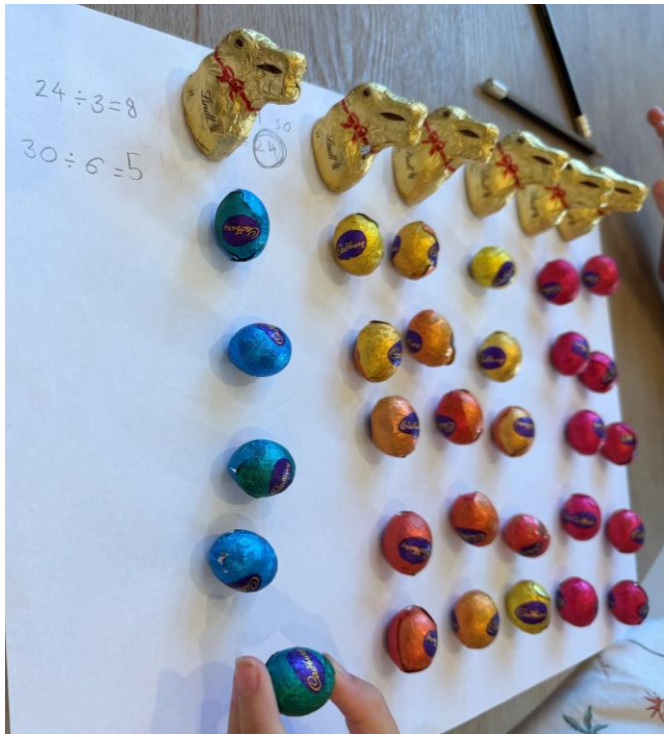


**For the following session, we recommend using coloured pompoms, instead of eggs, for the student work component, and character counters instead of choc bunnies.**

**Teacher fishbowl modelling can involve real Easter eggs and mini chocolate bunnies, if the teacher wishes, then students can eat the teacher modelling set to celebrate if they work hard towards achieving the learning goal of the session.**

# Bunny division

**Years 1-4**



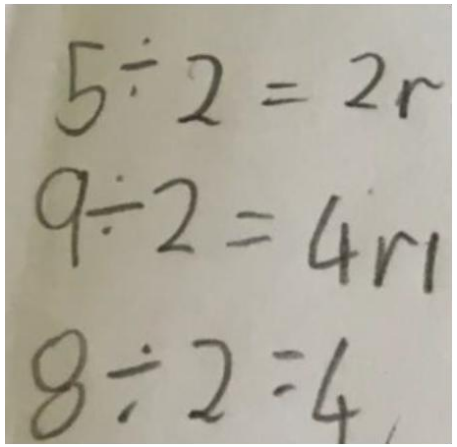


**Modelling tip:** Set some appropriately challenging division problems in lists of ‘lemon and herb, mild and spicy’ on the board, such as 12 ÷ 2 for lemon and herb, 24 ÷ 4 for mild, and 56 ÷ 8 for spicy. Model how to solve these problems using the materials in an array set-up, as shown in the photos above. Students use pompoms and character counters, but for teacher fishbowl modelling, use choc eggs shared between mini choc bunnies.

**Critical modelling tip:** Encourage students to estimate how many each bunny will receive and start by giving them that, then adjusting, rather than sharing one at a time. In this way, encourage students to attempt to mentally solve the problem first, then use the materials as a checking and immediate feedback tool.

**Repeat session:** In a second session, the challenge could be more open-ended, such as, what are all the ways to share 12/24/36 eggs without a remainder? Students investigate with materials, often starting by sharing that total of eggs between 1 bunny, then 2, then 3, and so on, recording each equation as they solve it. See the 3-6 Pack – Division – Unit 4 – Page 18, for a list of differentiated numbers for students to investigate.

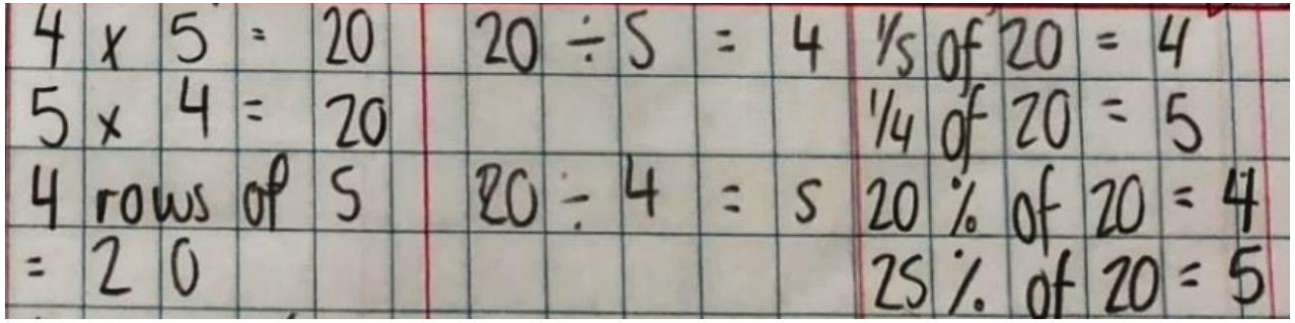
**Support:** Share a growing number of eggs (starting with 4 or 6), between two bunnies. Keep the bunnies at two all session, and only change the number of eggs being shared. Record remainders as 'r,' as shown here in Prep work samples:




**Extension 1:** Use the division strategies poster (New Years 3-6 Planning Pack – Division – main folder) to apply mental strategies for certain divisors, such as half half for dividing by 4.

**Extension 2:** Aim to use the reverse multiplication fact to solve the division, then also record the matching fraction facts for the same family (24 ÷ 4 = 6 because 4 x 6 = 24, ¼ of 24 = 6, 1/6 of 24 = 4). See *5 for Free* in the main Division folder of the 3-6 Pack.

**Extension 3:** After attempting the *Share $1 Investigation* (see the 3-6 Pack – main Fractions folder) and *5 for Free* (see the 3-6 Pack – main Division folder), record the matching percentage and decimal for each share as well.



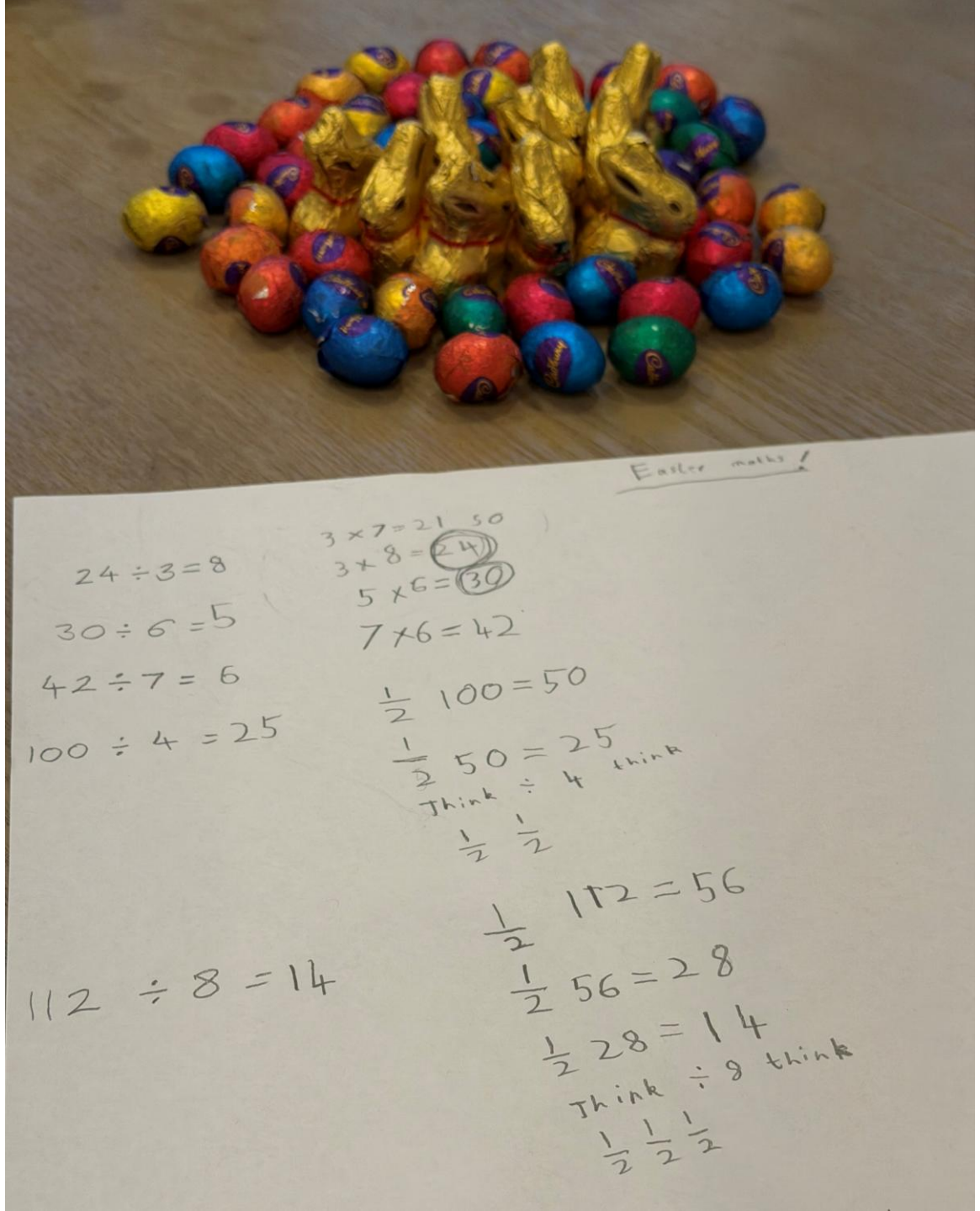
See Early Years Planning Pack – Division – Unit 2 for similar sessions

See Years 3-6 Planning Pack – Division – main division folder for this student strategies template and Division Units 4-5 for similar sessions

# ÷ strategies

Mental strategies that work for all sized divisions. Apply these to the other number.

| | |
|---|---|
| **Halving family** | |
| **2** | Half of the other number $(\frac{1}{2})$ |
| **4** | Half half the other number $(\frac{1}{2}\ \frac{1}{2})$ |
| **8** | Half half half the other number $(\frac{1}{2}\ \frac{1}{2}\ \frac{1}{2})$ |
| **Power of ten family** | |
| **10** | Place values decrease by one place (÷10) |
| **5** | ÷10 then double it (÷10d) |
| **Known or near multiplication family** | |
| **3** | think how many groups of 3 do I need to make that total but not go over it? Use known or close multiplication facts: 3 x ? = total to be shared |
| **6** | how many groups of 6 do I need to make ___ |
| **9** | how many groups of 9 do I need to make ___ |
| **7** | how many groups of 7 do I need to make ___ |

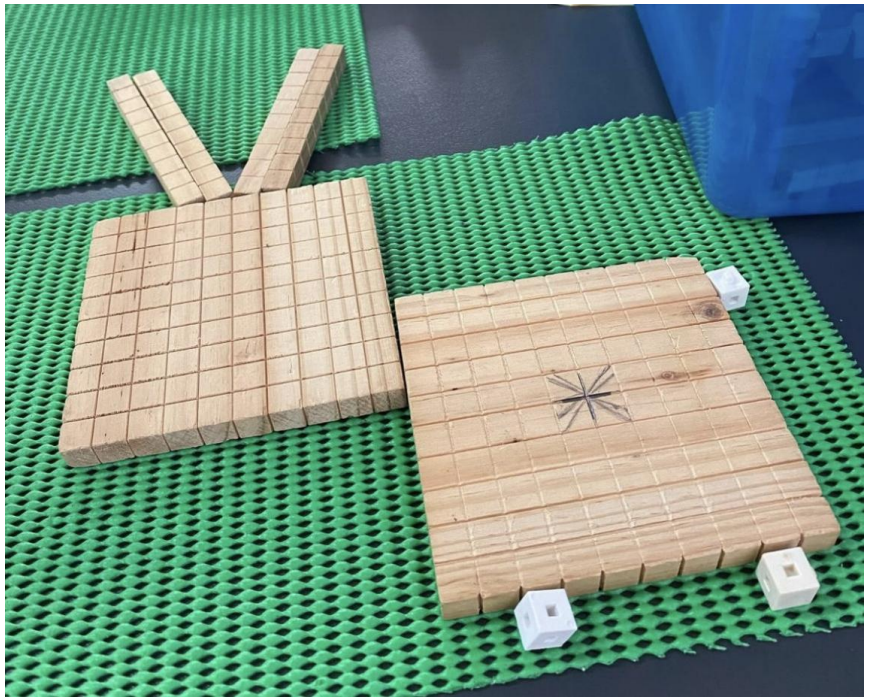



Once the numbers become too large, students start applying mental division strategies developed using the materials and summarised on the previous page, or use materials to check rather than to solve. Even while starting using materials for lower totals to share, encourage students to estimate the answer first, then distribute their estimate to each bunny, and adjust as needed.

Years 2-3

# Place value zoo – Easter style

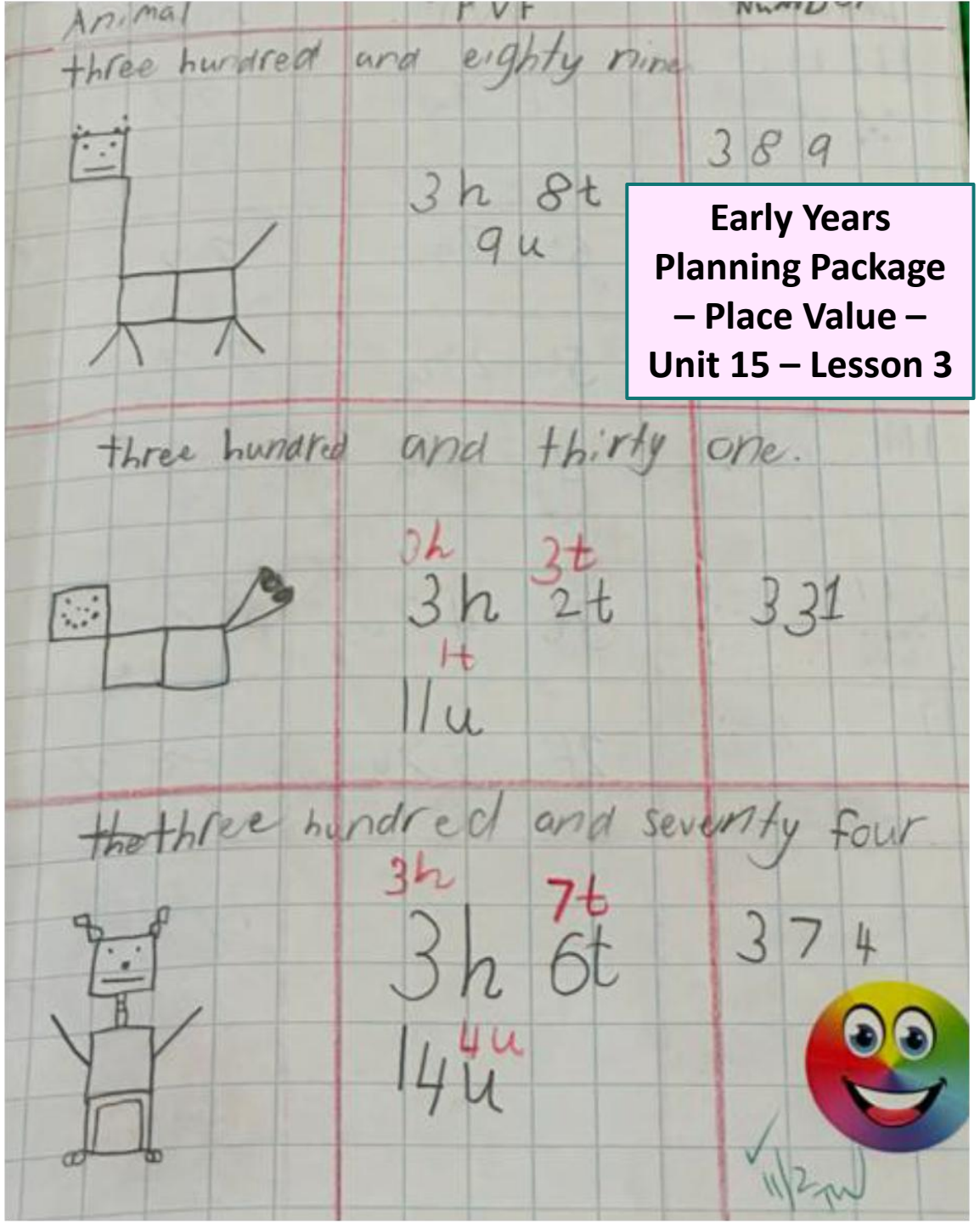
**Early Years Planning Package – Place Value – Unit 15 – Lesson 3**



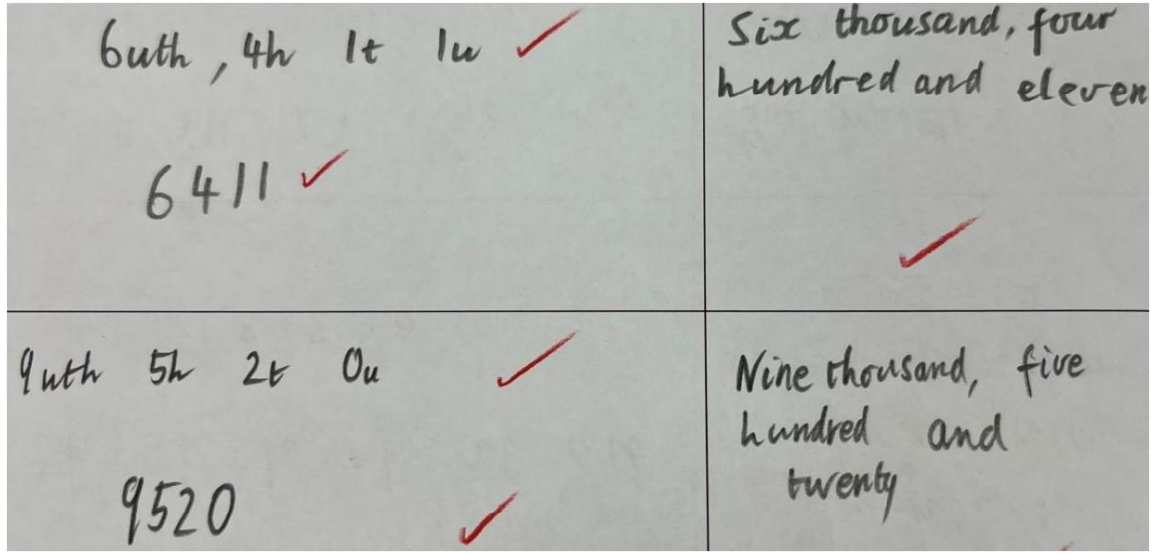
Class challenge of who can make the best bunny, Easter Egg, basket (and other Easter-related creations) in set time limits. Pause the timer and record in books before setting a new creation challenge.

**Extension 1:** How many more to 100/1000/10 000? Solve mentally, then check using a number line.

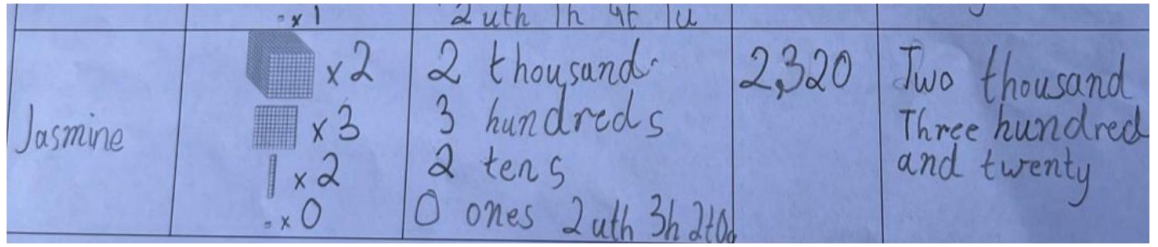
**Extension 2:** Roll the dice. How many blocks would you need in order to make that many replicas of your sculpture? Recommend modelling how to use the area model for multiplication to solve this.




**Early Years Planning Package – Place Value – Unit 15 – Lesson 3**




**Recording from the 3-6 Pack – Place Value – Year 3A – Lesson 4**



Years 1-4

# Skip-counting bunny ears and legs, as well as baskets of eggs

**Early Years Planning Package – Multiplication – Unit 2 – Lesson 1**

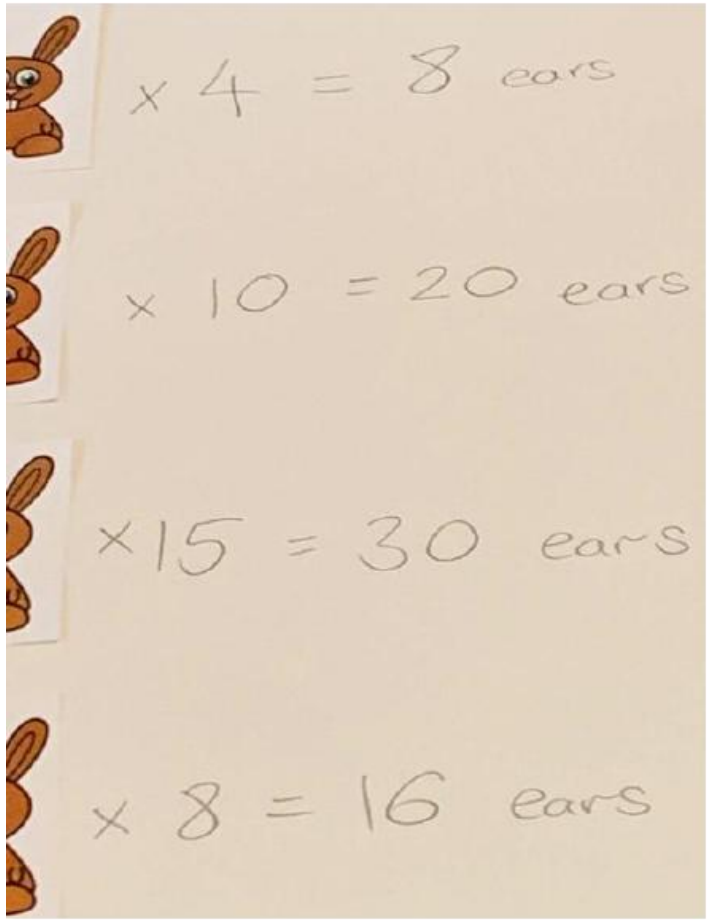

***Year 1/2 students:*** **Modelling tip:** Use the cliparts to practice counting by two (bunny ears), counting by four (bunny legs) and counting by 5 and 10 (baskets of eggs). Model first using a giant 120 chart and colour-codes, with students choral counting together: https://toytheater.com/120-chart/

Emphasise the pattern of the twos using colour on the chart. Also model how to use the twos pattern to assist to count the fours, by whispering the first two, then saying the next loud (two, FOUR, six, EIGHT, ten, TWELVE, then trying to say the first two in their head silently, and only saying the second out loud).

Emphasise the patterns of the tens and fives, such as by choral counting with a two-column set-up for the fives, and a single scroll/one-column set-up for the tens.

***Year 3/4 students:*** Can use multiplicative strategies, instead of skip-counting, to solve how many eggs/bunny ears/legs are in each gallery set up around the room.

**Early Years Planning Package – Multiplication – Unit 2 – Page 12 and Lesson 1**




While skip-counting together out loud as a class, students record in strategically organised charts that highlight the patterns:

**Choral counting set-out:** Provide students with a table that has a specific number of columns designed to visually highlight the skip-counting pattern. For example, for the 2s pattern, provide a 5-column table because the pattern repeats every 5 numbers:

| | | | | |
|---|---|---|---|---|
| 2 | 4 | 6 | 8 | 10 |
| 12 | 14 | 16 | 18 | 20 |
| 22 | 24 | | | |

For 5s, provide a 2-column template:

| | |
|---|---|
| 5 | 10 |
| 15 | 20 |
| 25 | 30 |
| 35 | |

For 10s, a one-column counting scroll – a thin strip of A3 paper.

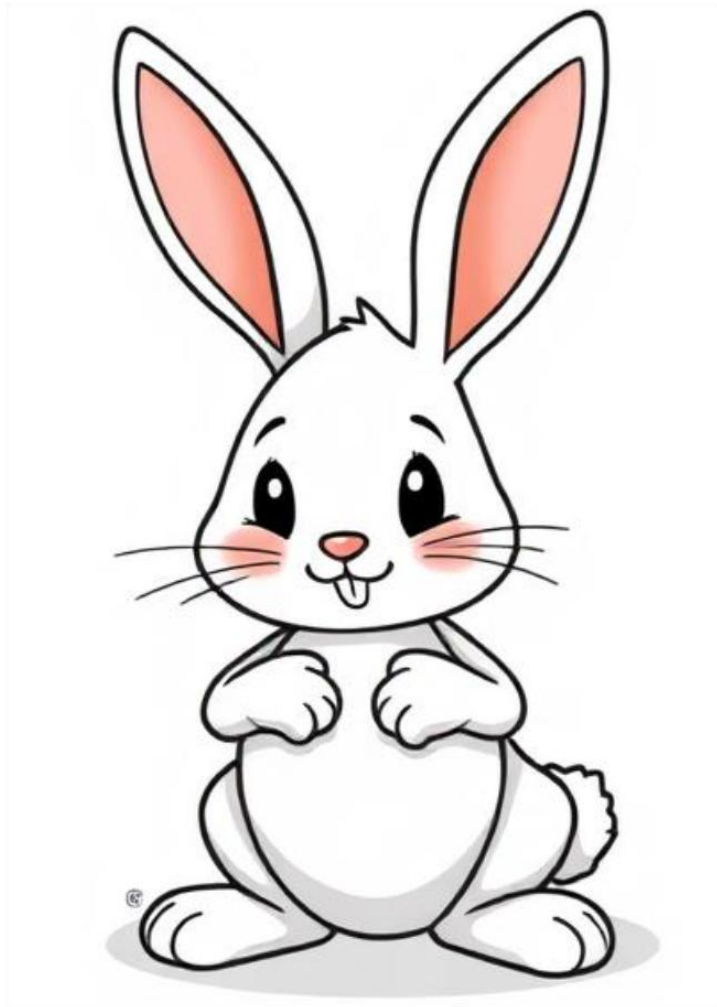
For 4s, a 5-column set out:

| | | | | |
|---|---|---|---|---|
| 4 | 8 | 12 | 16 | 20 |
| 24 | 28 | 32 | 36 | 40 |
| 44 | | | | |

For the 6s, a 5-column set out again:

| | | | | |
|---|---|---|---|---|
| 6 | 12 | 18 | 24 | 30 |
| 36 | 42 | 48 | 54 | 60 |
| 66 | | | | |

Since 5-column layouts, with numbers repeating at each set of 5, are so common, a template for this layout is in this unit's folder.



Counting by two (ears) and by four (legs) template – separate download, and by six for extension (whiskers)

Counting by five template – separate download

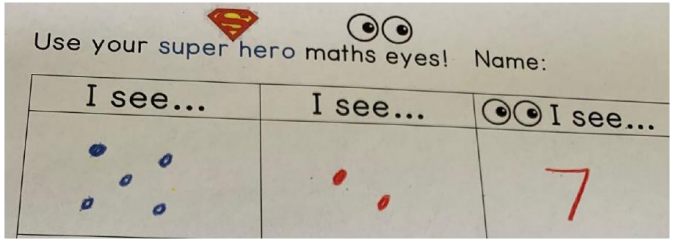
Counting by ten template – separate download

**For the following session, we recommend using coloured pompoms or counters, instead of eggs, for the student work component.**

**Teacher modelling can use real Easter eggs if the teacher wishes, then students can eat the teacher modelling set to celebrate if they work hard towards achieving the learning goal of the session.**

**Foundation and Year 1/2**

# Subitising egg plates



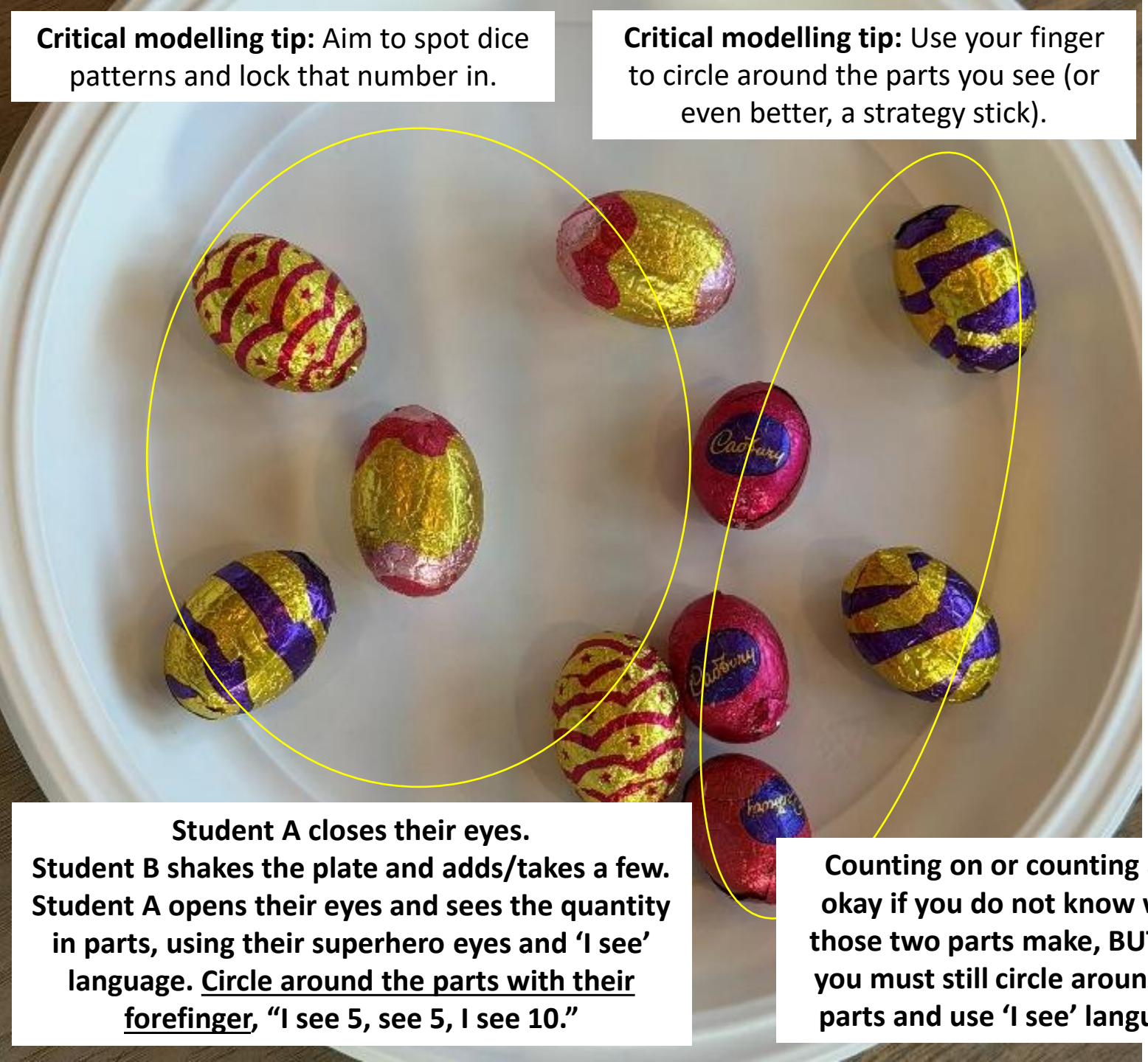

**Early Years Planning Package – Place Value – Unit 6 – Lesson 8**

**Modelling tip:** Aim to use “I see, I see, I see” part-part-whole language from Place Value Unit 5 of the Early Years Package, as well as recording in number bonds or using the ‘I see’ superhero eyes recording template. Circle with a pointer finger, around each part of the eggs/pompoms to show their subitising (“I see 3, I see 3, I see 6”), and demonstrate how they saw the collection, rather than counted it.

**Differentiation:** Adjust how many eggs are dropped and how many different ways you expect each plate to be solved before it is re-dropped. Extension students could aim to solve each plate 3-5 differet ways.

**Critical modelling tip:** Aim to spot dice patterns and lock that number in.

**Critical modelling tip:** Use your finger to circle around the parts you see (or even better, a strategy stick).



"I see 6,
I see 3,
I see 9."

"I see 5,
I see 3,
I see 8."

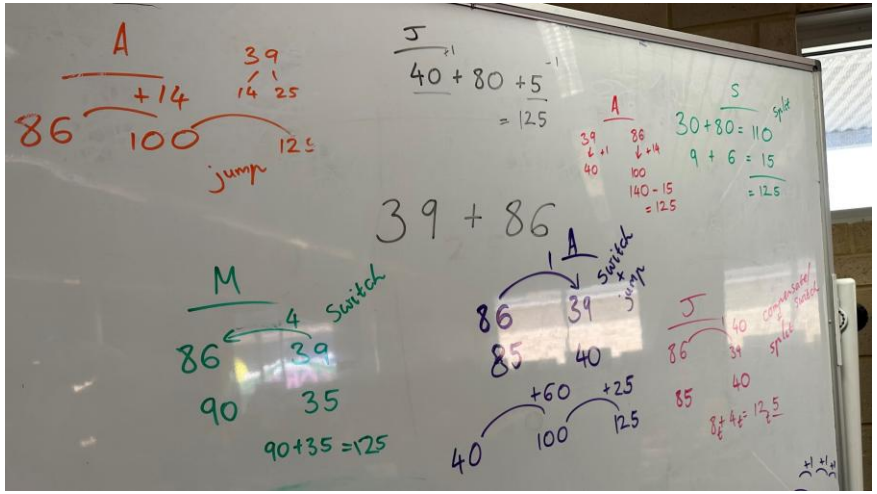
**Student A closes their eyes.**
**Student B shakes the plate and adds/takes a few.**
**Student A opens their eyes and sees the quantity in parts, using their superhero eyes and 'I see' language. <u>Circle around the parts with their forefinger</u>, "I see 5, see 5, I see 10."**

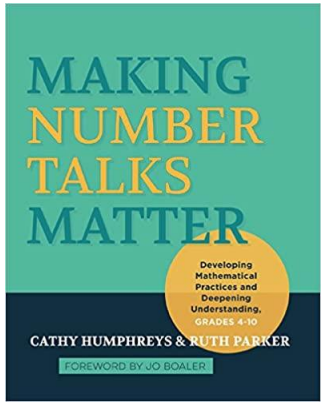
**Counting on or counting all is okay if you do not know what those two parts make, BUT first you must still circle around the parts and use 'I see' language.**

Years 2-4

# Chocolate number talks – strategies to solve each array

**Years 3-6 Planning Package – Implementation Support Folder – Number Talks subfolder and warm-ups throughout many of the unit plans**




**Modelling tip:** Run number talks with Years 2-4 students on how to solve each of the arrays on the slides that follow.

Students place their fist on their chest. One finger = one strategy. Two fingers = two strategies, and so on. Teacher calls upon students strategically to share. Teacher scribes the strategy on the board, as each student verbalises and explains their thinking to classmates.

The emphasis is on flexible thinking, mental number sense (no algorithms), efficiency and solving problems a range of different ways, as opposed to only valuing the answer or the speed of the response, without the thinking behind it. This prepares students for secondary and university mathematics, where an answer is worth nothing without proof.

# Number Talk A

# Number Talk B

# Number Talk C

# Number Talk D

# Number Talk E

# Number Talk F

# Number Talk G

# Number Talk H

# Number Talk I

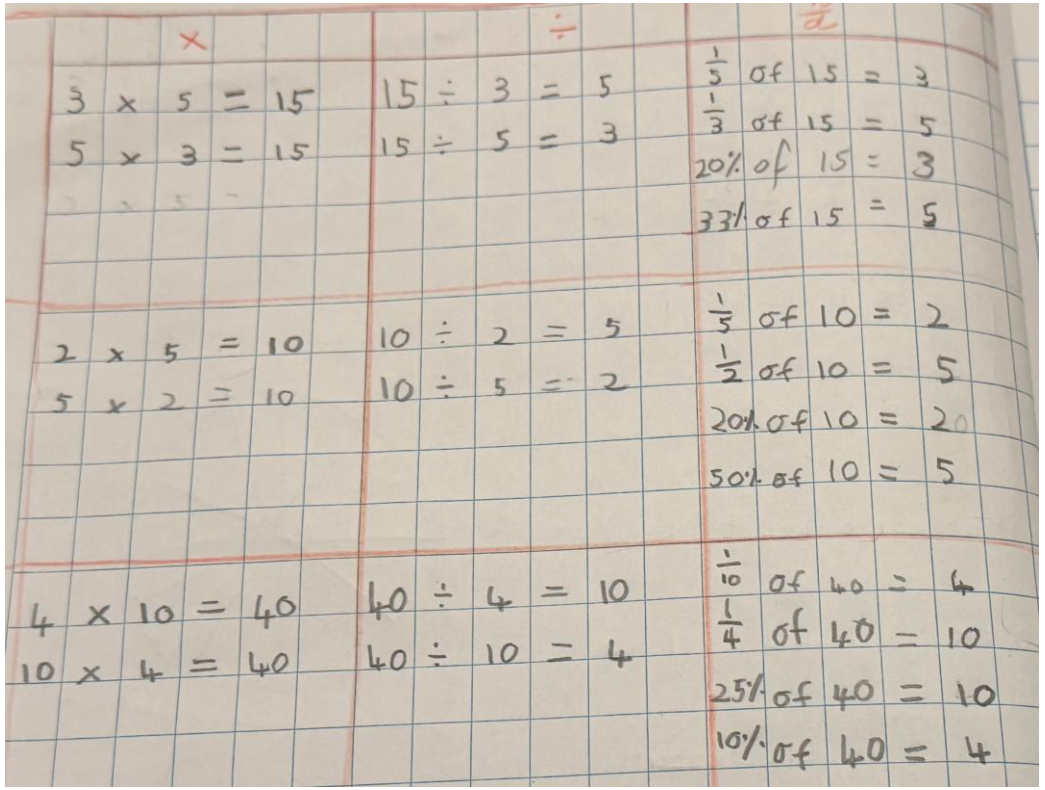
**For the following session, we recommend using counters, instead of eggs, and character counters for the student work component.**

**Teacher modelling can use real Easter eggs and mini choc bunnies if the teacher wishes, then students can eat the teacher modelling set to celebrate if they work hard towards achieving the learning goal of the session.**

Years 4-6

# 5 for free arrays with eggs and bunnies

**Years 3-6 Planning Package – Division – Main Folder – 5 for Free Lesson Plan**



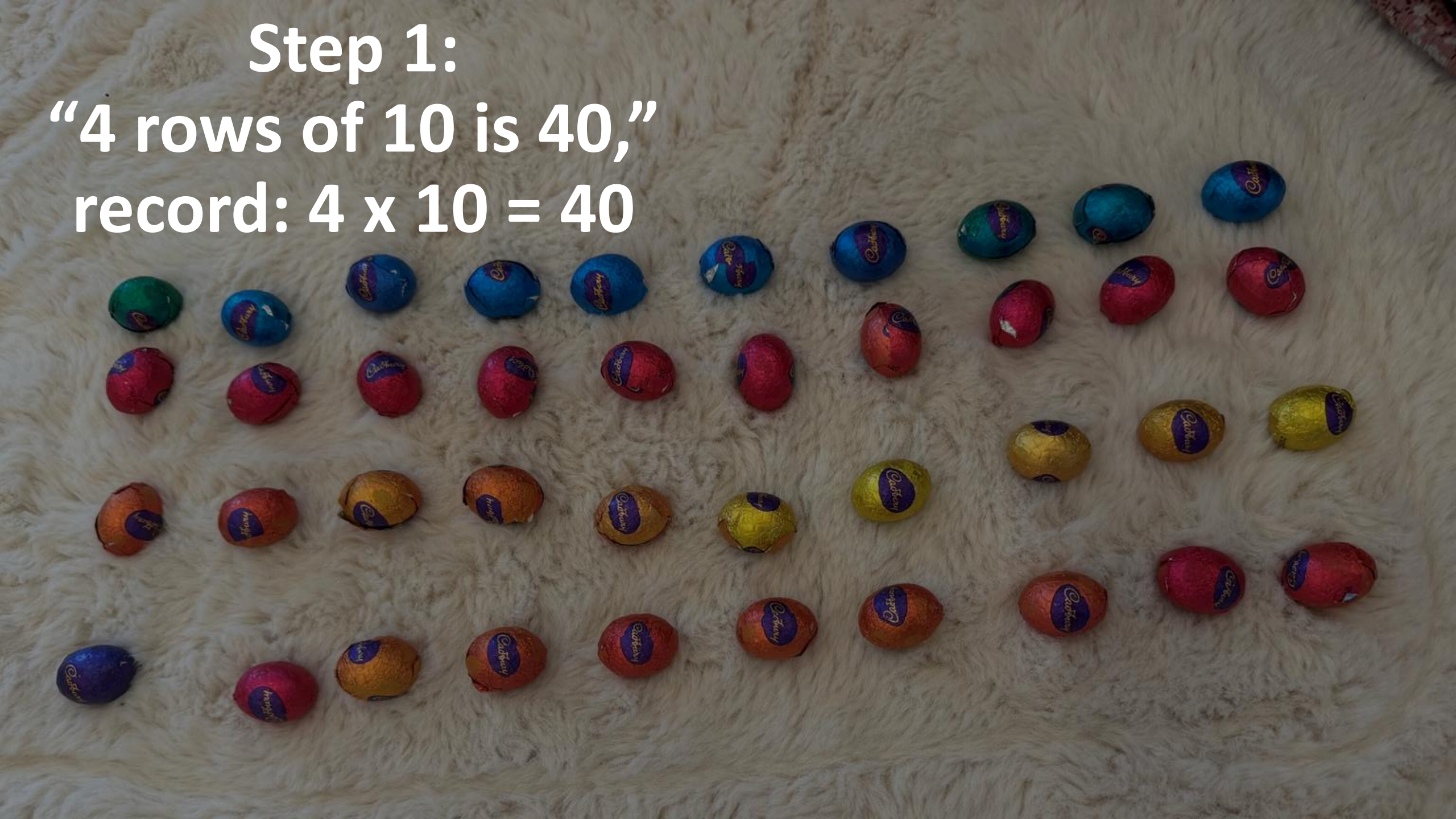

*See Years 3-6 Package – Division main folder – 5 for free lesson* for the full instructions for this session, and simply adapt by fishbowl modelling using Easter eggs and bunnies.

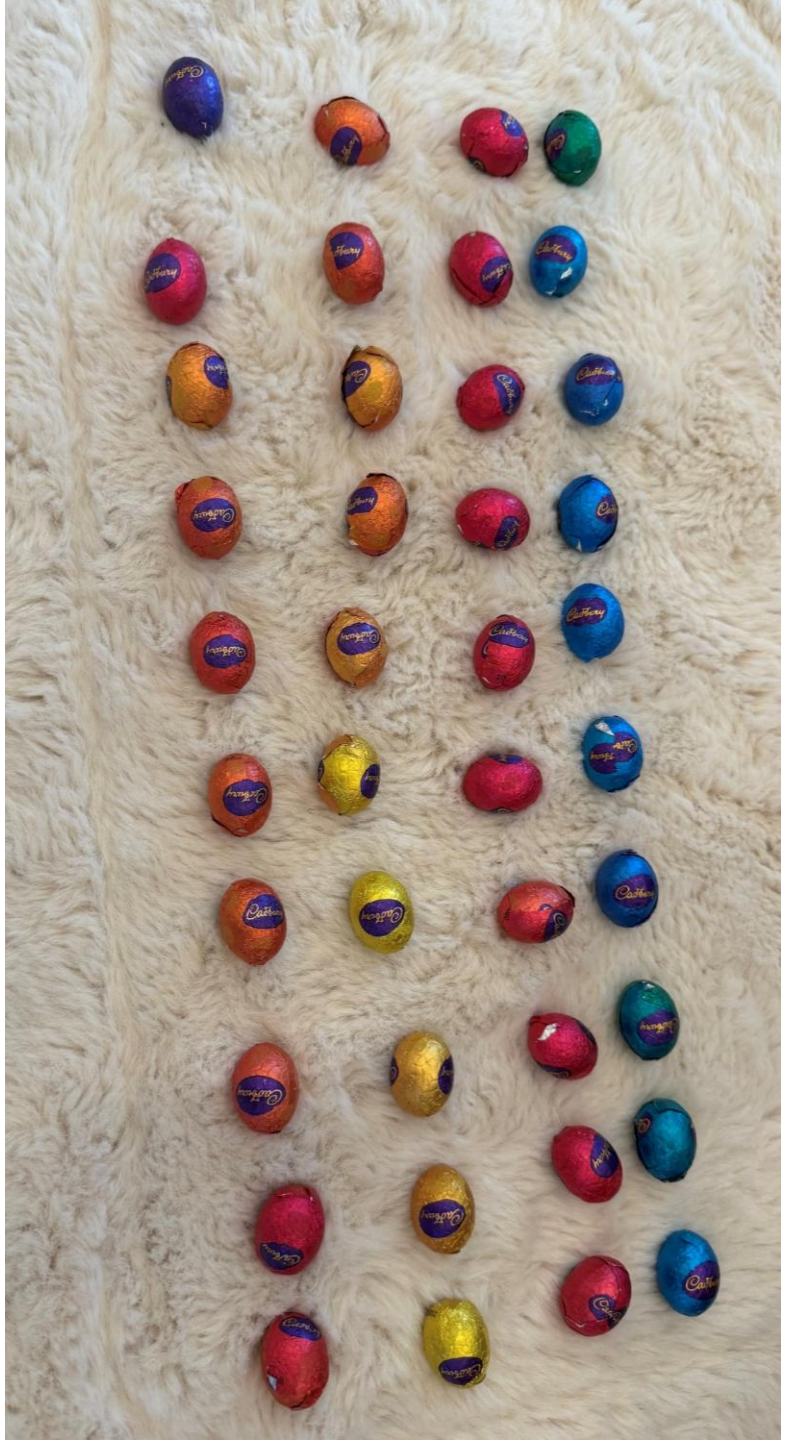
Students can still use the counters/characters shown in the lesson plan, but we recommend teachers model using the Easter eggs and choc bunnies for extra engagement at this time of the year.


Cadbury


Lindt

# Step 1:
# “4 rows of 10 is 40,”
# record: 4 x 10 = 40

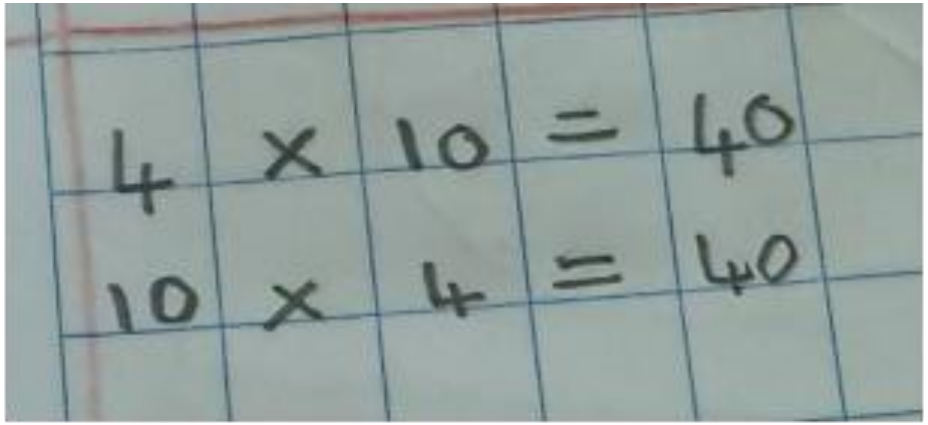




# Step 2:

# “10 rows of 4 is 40”

# record:
# 10 x 4 = 40



# Step 3:

**“40 eggs shared between 4 bunnies is 10 each”**

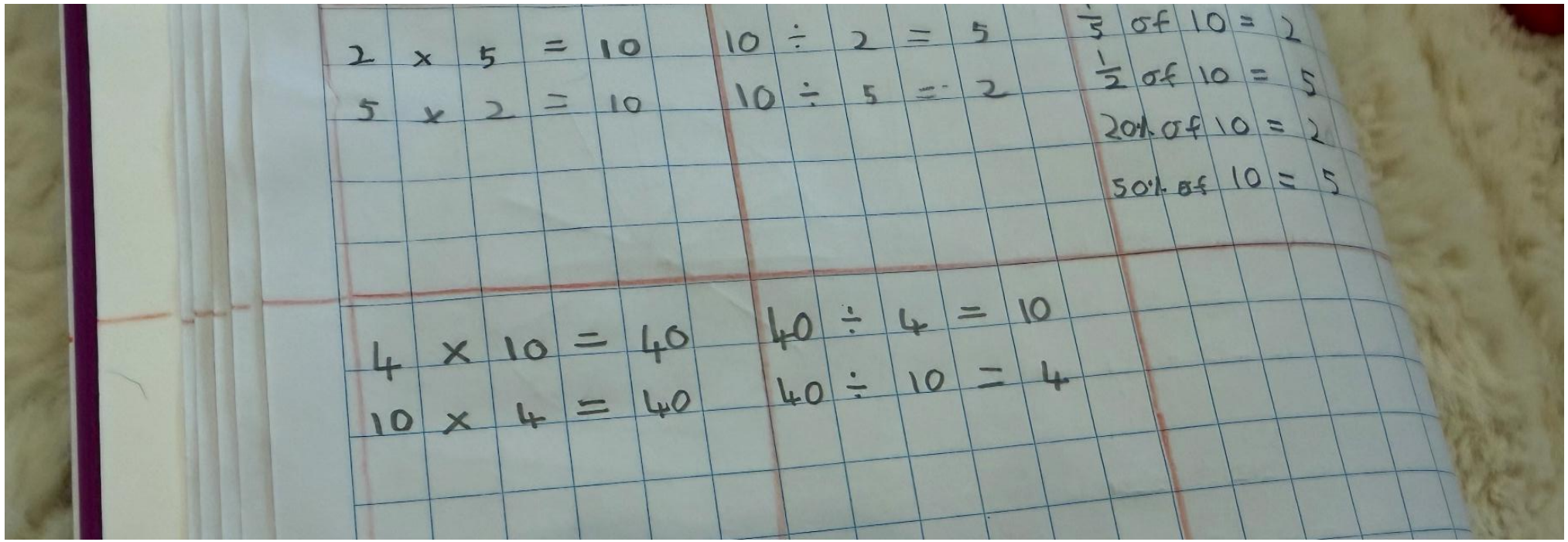
**record:**
**40 ÷ 4 = 10**

# Step 4:

**“40 eggs shared between 10 bunnies is 4 each”**

**record:**

**40 ÷ 10 = 4**


2 x 5 = 10
5 x 2 = 10
10 ÷ 2 = 5
10 ÷ 5 = 2
1/5 of 10 = 2
1/2 of 10 = 5
20% of 10 = 2
50% of 10 = 5
4 x 10 = 40
10 x 4 = 40
40 ÷ 4 = 10
40 ÷ 10 = 4

# Step 5:

**“1 out of 4 parts or one fourth/quarter of 40 is 10”**

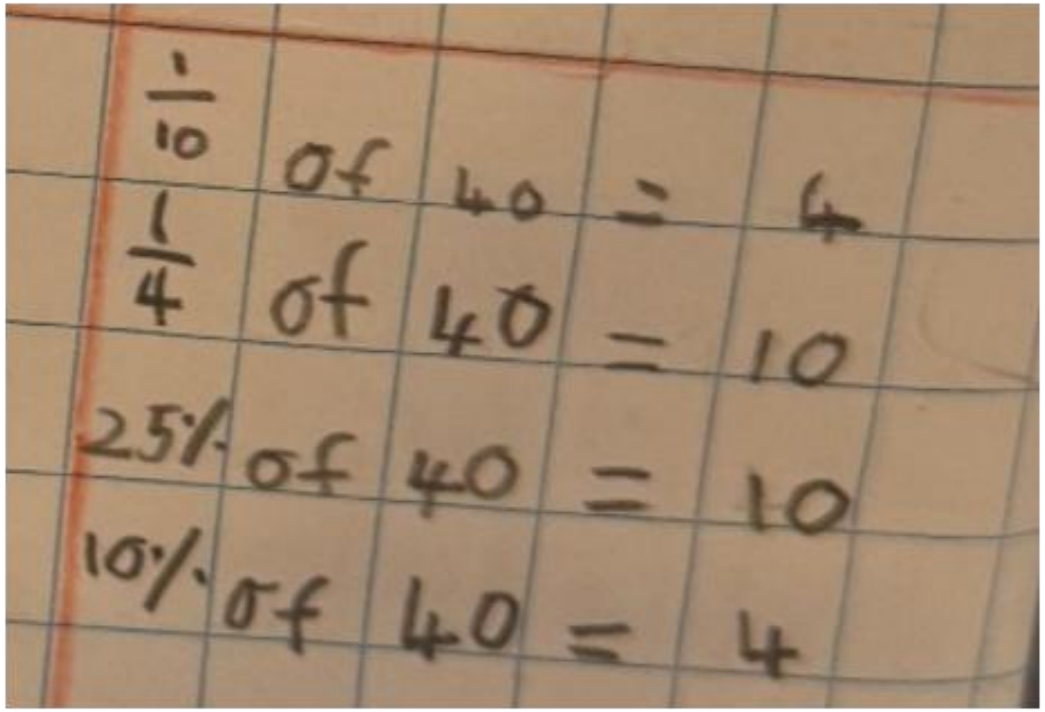
**record:**
**1/4 of 40 = 4**

**Step 6:**

**“1 out of 10 parts or one tenth of 40 is 4”**

**record:**
**1/10 of 40 = 4**

**Extension:** Matching percentages using the ‘think $1 strategy’ – see Years 3-6 Package – Fractions – main unit folder – Share $1 investigation lesson plan.



$\frac{1}{3}$ of 15 = 5

20% of 15 = 3

33% of 15 = 5

$2 \times 5 = 10$

$5 \times 2 = 10$

$10 \div 2 = 5$

$10 \div 5 = 2$

$\frac{1}{5}$ of 10 = 2

$\frac{1}{2}$ of 10 = 5

20% of 10 = 2

50% of 10 = 5

$4 \times 10 = 40$

$10 \times 4 = 40$

$40 \div 4 = 10$

$40 \div 10 = 4$

$\frac{1}{10}$ of 40 = 4

$\frac{1}{4}$ of 40 = 10

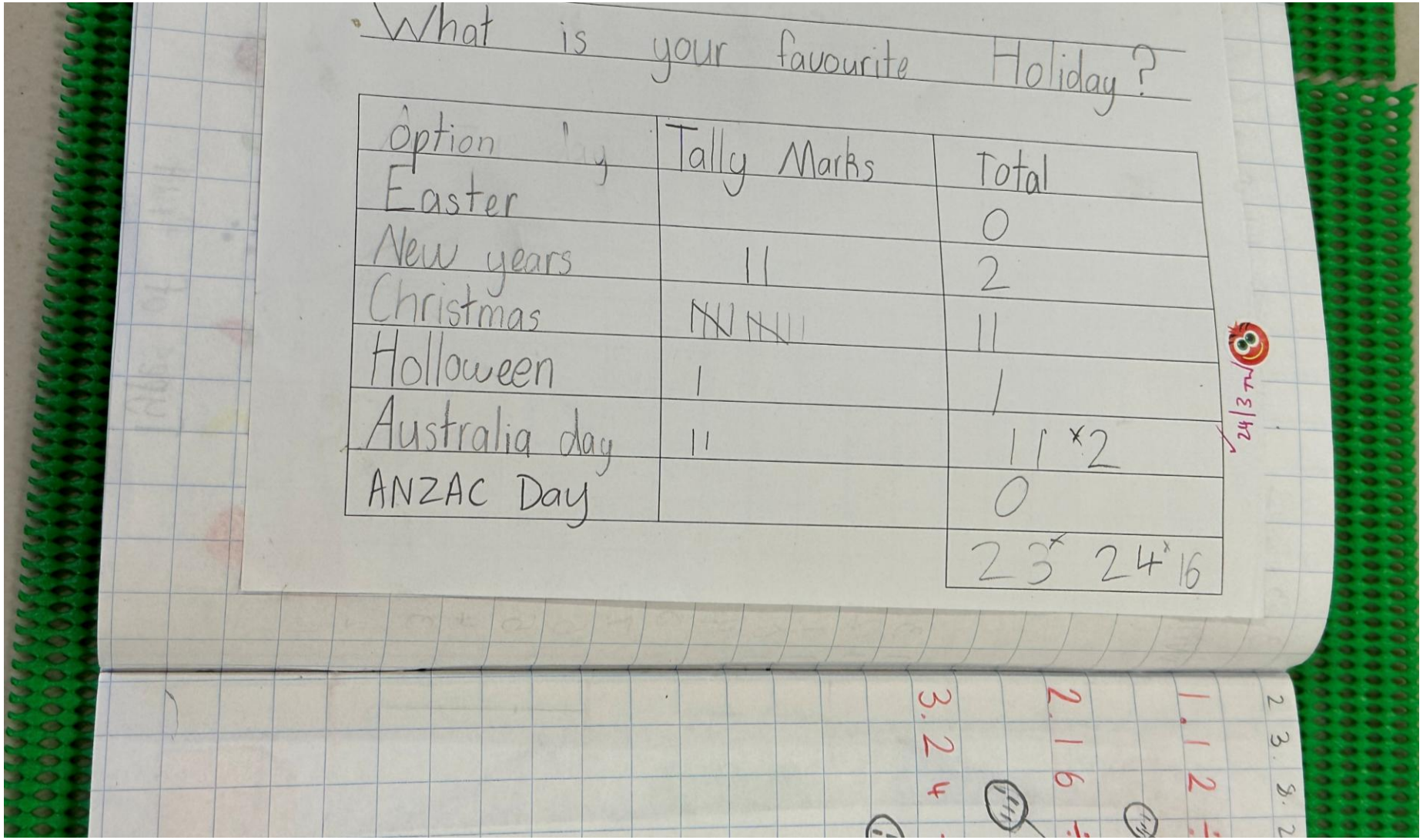
25% of 40 = 10

10% of 40 = 4

# Step 7: Eat!

**Foundation and Year 1/2**

# Tally then graph students' favourite holidays



What is your favourite Holiday?

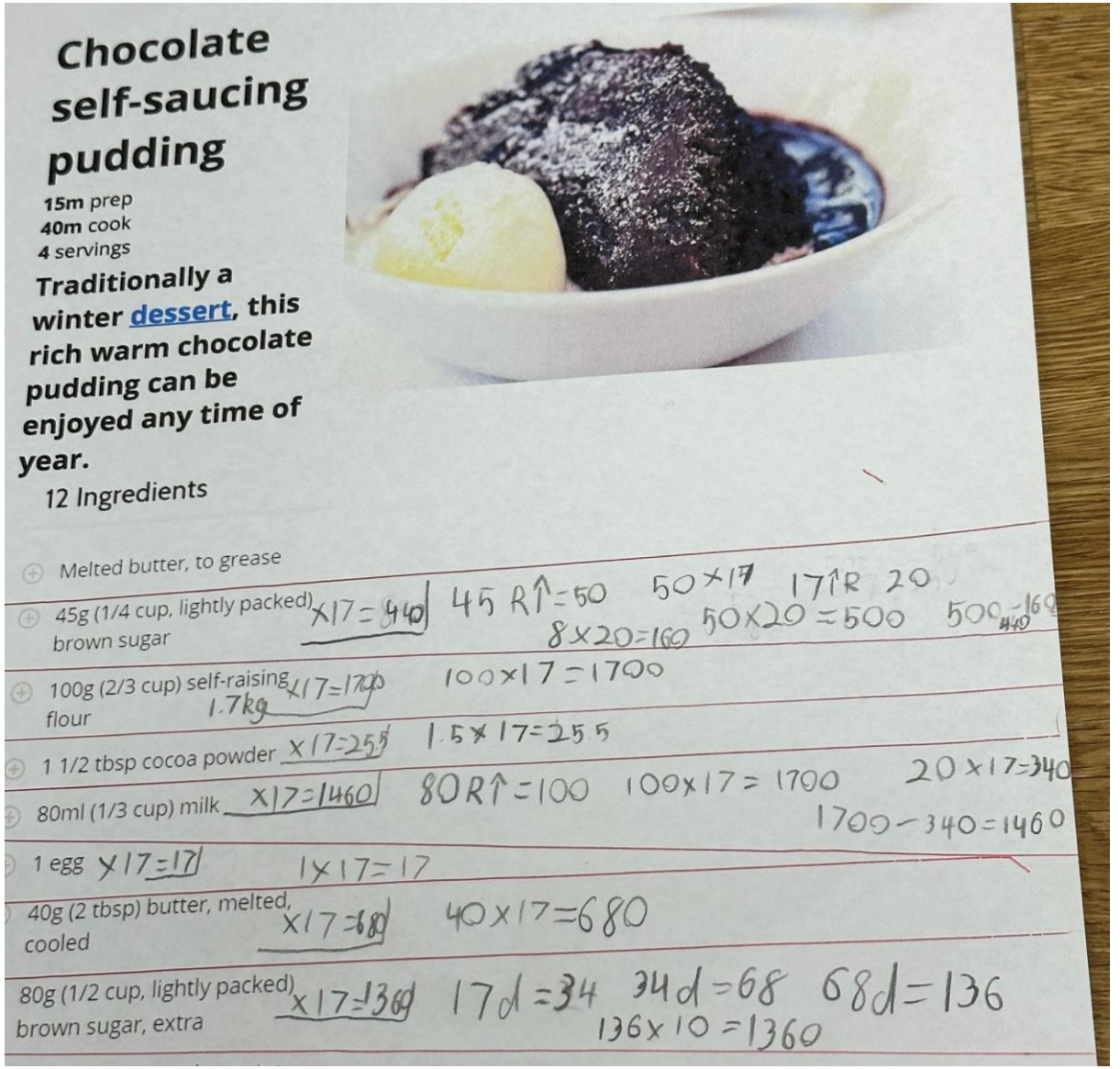
| Option | Tally Marks | Total |
|---|---|---|
| Easter | | 0 |
| New years | II | 2 |
| Christmas | 𝍸 𝍸 II | 11 |
| Holloween | I | 1 |
| Australia day | II | II ×2 |
| ANZAC Day | | 0 |
| | | 23 24 16 |

24/34

Years 4-6

# Dessert Recipes Multiplication

**Years 3-6 Planning Pack Multiplication – Unit 5 – Lesson 15**



**Years 3-6 Planning Pack**
**Multiplication – Unit 5 – Lesson 15**

# chocolate cake


**15m** prep
**50m** cook
**8** servings

SAVE RECIPE 5,548 people saved this 847 people made this

**Here it is: the best-ever chocolate cake (in Australia AND the world in our eyes, but we're biassed).**

## 13 Ingredients

- Melted butter, to grease
- 270g (1 1/3 cups, firmly packed) brown sugar 270g x 11 270 x 10 + g = 2970g C = 2.97Kg
- 185ml (3/4 cup) milk 185ml x 11 dd 185ml = 740 x 3 = 2220 - g = 2015ml C = 2.015L
- 125g butter, cubed 125g x 11 = 125 x 10 + g = 1375g C = ~~1.375L~~ 1.375Kg
- 50g (1/2 cup) cocoa powder 50g x 11 50 x 3 = 150 ddd 50 = 400 400 + 150 = 550g
- 1/4 tsp Coles Bicarbonate Soda $\frac{1}{4}$ tsp x 11 $\frac{1}{4}$ x 4 x 3 = $\frac{3}{1}$ $\frac{3}{1}$ - g = 2 $\frac{3}{4}$ tsp
- 150g (1 cup) self-raising flour 150g x 11 150 x 10 + g = 1650g C = 1.65Kg
- 2 tbsp plain flour 2 tbsp x 11 2 x 10 = 20 | 2 x 1 = 2 20 + 2 = 22 tbsp
- 3 eggs, lightly whisked 3 x 11 3 x 11 = 33 C = 2 $\frac{3}{4}$ trays

**Chocolate icing**

- 195g (1 1/4 cups) pure icing sugar 195g x 11 195 x 10 + g = 2145g C = 2.145Kg
- 1 tbsp cocoa powder 1 tbsp x 11 = 11 tbsp
- 10g (2 tsp) butter, at room temperature 10g x 11 10 x 11 = 110g
- 1 tbsp boiling water

1 tbsp x 11 = 11 tbsp

Year 4

# Converting between improper fractions and mixed numbers

**Years 3-6 Planning Pack Fractions – Unit 4 – Lesson 2, INCLUDING VIDEO MODELLING EXAMPLES FOR TEACHERS within the lesson plan**

2/4=1/2
WRAPPED WITH RECYCLED PLASTIC
Délicieux croquants enrobés de chocolat au lait onctueux

$$\frac{6}{4}$$

$$= 1\frac{2}{4}$$

$$= 1\frac{1}{2}$$

$\frac{9}{4}$

$= 2\frac{1}{4}$


10 of the quarters, or 10 quarter-sized pieces = $2\frac{2}{4}$ wholes = $2\frac{1}{2}$ wholes


18/6
= 3 = 3/1
= 3 wholes

$$\frac{12}{6} = 2 = \frac{2}{1} = 2$$

whole sized pieces

$$\frac{11}{6}$$

$$= 1\frac{5}{6}$$

$$\frac{10}{6} = \frac{4}{6} = \frac{2}{3} = 1$$

**Foundation and Years 1-2**

# Seasons Box


Easter marks a critical turning point in the weather patterns for many states and the end of daylight savings for some as well. A great time of the year to introduce the ‘seasons box’ to the class.

Students contribute items relevant to that season, forming a ‘seasons gallery’ throughout autumn. Repeat for winter, spring and summer as those roll around throughout the year.

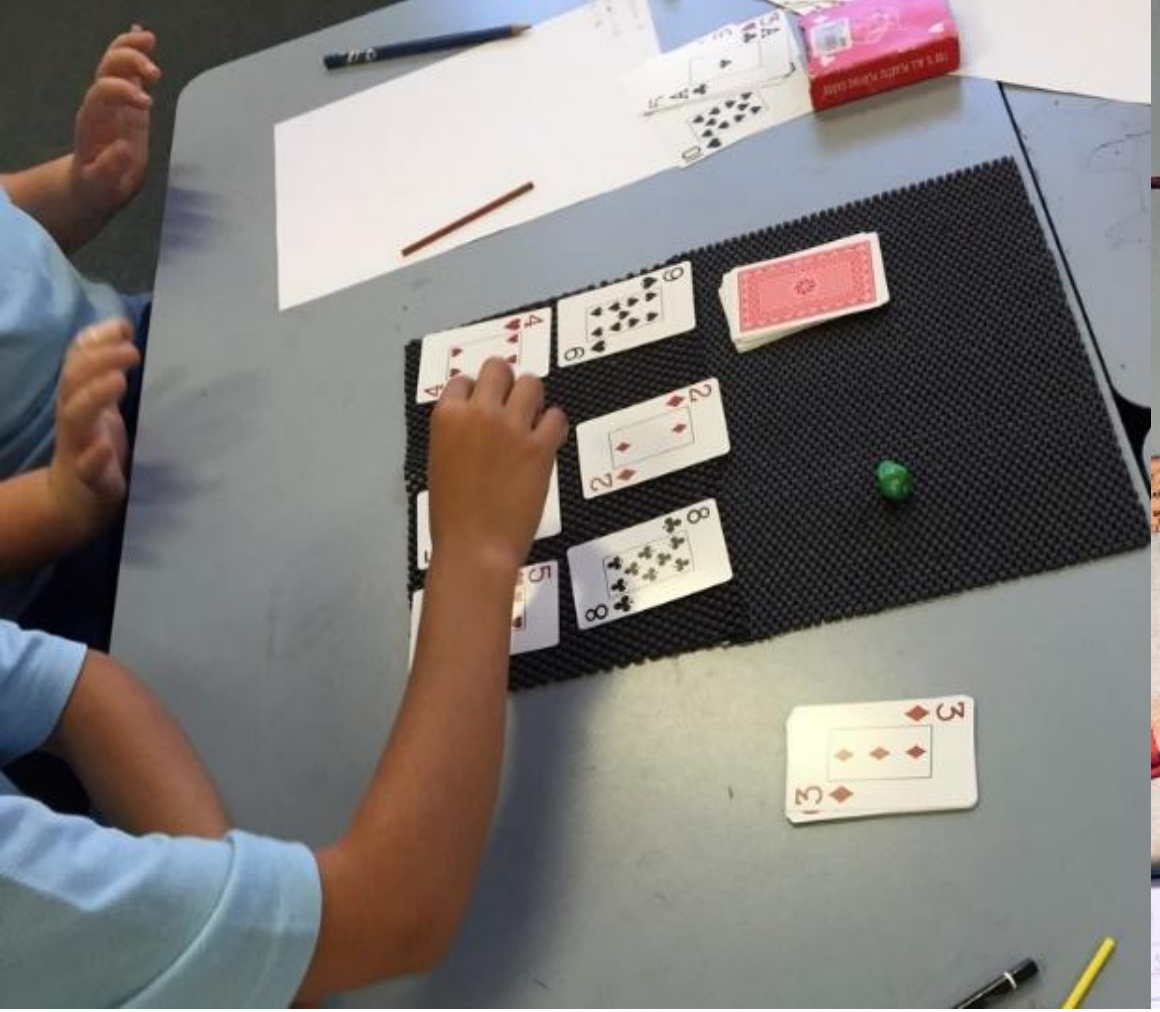

Winter
Ad-Fresh Apples
June * July * August *


Spring
September
October
November
THE PERFECT PICK


Cancer Council
FACE DAY WEAR
MOISTURISER
MATTE
SPF 50+
Wahu
WARNING!
WILL NOT PROTECT
DROWNING
ber
January
February

Whole-class seasons box sort with months of the year in colour codes by season, and students sitting behind their birth month as well.

Students also regularly sang a seasons and months of the year song with matching movements.




# A sequential, materials-based, hands-on approach to growing numerate students

# 2024 regional-comparison NAPLAN student gain data (Year 3):

## NAPLAN - Students by Proficiency Levels

### Exceeding or Strong students in 2024 (%)

For students in **Year 3**, **Numeracy**

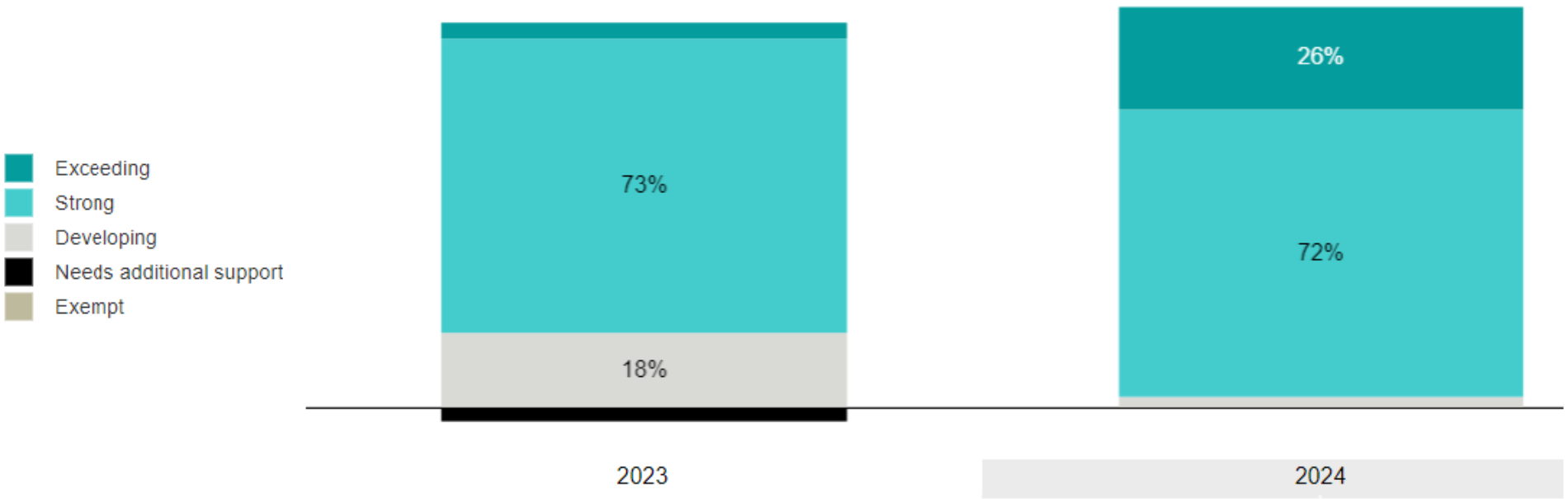
98%
Your school

67%
Similar schools

**Chirnside Park PS results after four years of implementing Top Ten Maths <u>with fidelity</u>.**

### Students by proficiency level (%)

For students in **Year 3**, **Numeracy**

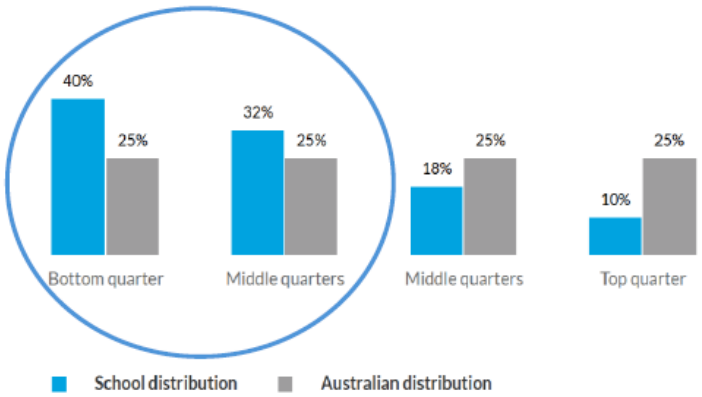


# Kananook PS – Intensive Top Ten Member School 2025 NAPLAN Results for students that started the program in Prep who have now entered Year 3

## Student background

| Index of Community Socio-Educational Advantage (ICSEA) | |
|---|---|
| School ICSEA value | 988 |
| Average ICSEA value | 1000 |
| School ICSEA percentile | 41 |

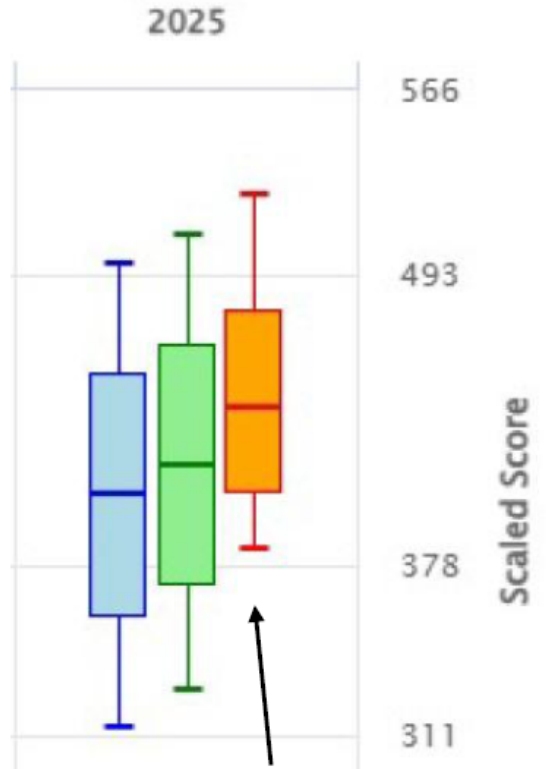
Distribution of Socio-Educational Advantage (SEA)




*Percentages are rounded and may not add to 100*

**Significantly outperforming state and national scores, even though their ICSEA in terms of family backgrounds is significantly below the median in terms of socio-educational advantage.**

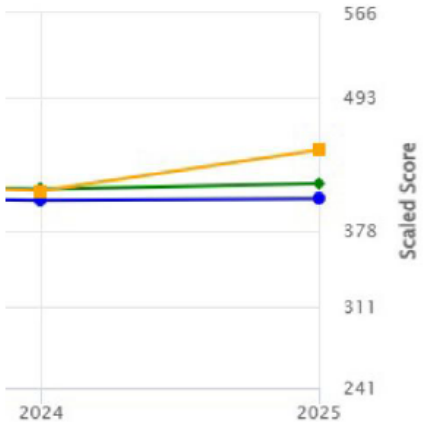
**This proves that an approach to numeracy that has been developed for ten years in Australian classrooms, implemented with fidelity by teachers and leaders, will make a huge impact to the educational outcomes of students, regardless of the school's socio-economic status.**




**Outstanding difference for support students in particular, with no long tail end of the data.**

| | 2025 |
|---|---|
| **National Mean** | 405 |
| **State Mean** | 418 |
| **School Mean** | 448 |

**The school's ICSEA would generally indicate the cohort should be achieving, on average, below the state and national mean, not 43 points above national and 30 points above state levels.**




# Feedback from leaders and teachers members at Chirnside Park PS

"When the change narrative is presented well and teachers are embedded in the change process with all resources required, look at the impact for students. Your passion and impact at our school has been immense. Thank you again for your incredible support at CPPS. You go above and beyond for our community and we see that and appreciate that. So proud of our staff and students."
**Mr Graham Elliott, Principal, Chirnside Park PS**

"Thanks again for the continued support you provide our teams. The enthusiasm and passion you share has continued to support our aim in developing a rich and effective mathematics program."
**David, Assistant Principal, Chirnside Park PS**

"Our students across the school love Maths because of Top Ten. It is extremely engaging and develops their conceptual understanding. The approach is evidence based, the PDs are incredible for teachers, and the support of the consultant is so valuable. Our results have lifted so much since committing."
**Natalie, Year 3/4 Teacher, Chirnside Park PS**

"You are always so supportive of how I plan. Thank you."
**Sharon, 5/6 Teacher, Chirnside Park PS**

# Feedback from Top Ten member schools

“This is an incredible resource for schools wishing to see a real shift in student perceptions and attitudes to maths – as well as improved data along the way.”
**Ms Lynette Robberts, Teaching Principal, Tallarook PS**

“The planning packs make fantastic well-researched activities available to all teachers, especially graduates, returnees from family leave and tutors. It is so easy to match them with the results from the assessments, and allow children to work at their point of need.”
**Suzanne, Numeracy Leader, Yuille Park Community College**

“Our results are showing that students are tracking more at-level on pre-tests, so we can start at a higher level than in previous years. This is a direct result of the hands-on planning packs.”
**Ms Martene Matthews, Teaching and Learning Specialist, Kananook PS**

# Feedback from Top Ten member schools

“The program is excellent and very relevant and accessible to our students. Frankly they have never enjoyed maths more.”
**Ms Anne Shipway, Principal, Yulga Jinna Remote Community School**

“Our school is loving the program. The yearly overviews provide a very clear guide for teachers to follow. The diagnostic tests are also fabulous in identifying student strengths and areas in need of development.”
**Mr Shane Wilson, Principal, Marble Bar PS**

“I love learning new things and your whole framework surrounding Maths certainly is a great fit for our students at this school. The approach by Top Ten is a resource that encompasses exemplary pedagogy with a view to supporting the whole child (auditory, sensory, processing and fine motor skills) to ensure high engagement with Mathematics. It is educative, informative and definitely hands-on.”
**Ms Jenny Bruce, Deputy Principal, South Kalgoorlie PS**

# Feedback from Top Ten member schools

“Top Ten Maths has provided staff with an understanding of how to sequence the teaching of mathematical concepts, as well as providing tasks to teach students the given concept - a fantastic resource.” **Mr Paul Hilton, Assistant Principal, Dandenong North PS (2020). Dandenong North PS has recently been recognised as the highest-performing school in terms of student gain results in Victoria for 2022. Top Ten delivered four intensive curriculum days for Dandenong North PS teams in 2020 and 2021.**

“The Top Ten Planning Packs have transformed attitudes to maths at my school. Teachers and students now look forward to maths sessions more than ever.”
**Evan, Numeracy Learning Specialist, Belvedere Park PS**

“Engaging lesson plans which do not require specialised resources, just everyday things you'd find in most classrooms. Teachers find the differentiated tasks through enabling and extending prompts particularly helpful. Students give it a double thumbs up, they love it!”
**Annie, Maths Coordinator, Heidelberg PS**

# Feedback from Top Ten member schools

“The Top Ten Numeracy Program has given our teachers a 'kick start' in the delivery of rich learning tasks, across our classrooms. The pre/post tests and the associated data tables provide a consistent measure for assessing and tracking student growth. The PD Days are hands-on and motivating; staff were able to experience the activities in action. The activities speak for themselves. It's a program that is valued by all staff at our school.” **Pam, Numeracy Leader, Boort District P-12 School**

“We love the clear learning intentions; enabling and extending prompts; and photos that show what work (especially recording methods) might look like in a real classroom. The packs are teacher-friendly. The activities are engaging and fun for the learners and teachers too. They use simple equipment in a variety of ways.”
**Sue and Katrina, Maths Leaders, Pakenham Hills PS**

“The hands on sessions are inspiring and so accessible. I can see the piggybacking of ideas happening before my eyes. The excitement, interest and buzz of maths has had a rebirth – thanks so much!” **Maree Seymour, Principal, Sherbourne PS**

# Feedback from Top Ten member schools

“Every student at our school is experiencing success with Maths every day. This program has revolutionised the way in which our students feel about Maths. It has led to astoundingly improved student engagement and comprehensive progress in student outcomes. The pre and post testing component is invaluable, in that it continually directs teaching towards targeting specific goals that are achievable for each student. All lessons utilise peer teaching and practice, and zero in on understanding the language of Maths which is crucial for students to attain real, deep and rich understandings of the concepts being taught.”
**Ms Rebecca Szeremeta, Numeracy Leader, Thomastown East PS**

“We have really enjoyed the dynamic approach to mathematics learning and the engaging resources that Top Ten Maths has provided.”
**Kathy Winton, Numeracy Leader, Footscray PS**

# Feedback from Top Ten member schools

“The Top Ten units have not only saved me hours of work but my students have LOVED the activities. The lessons are easy to follow and clearly break down the developmental steps of the curriculum. I have a very mixed ability cohort and I have found each lesson easy to differentiate, and the hands on factor has kept all of the students, including those with behavioural difficulties, engaged. The pre- and post-tests are easy to use and have allowed me to have measurable, topic-specific data for each of my students. I have been able to easily adapt most of the lessons and resources to remote learning and my students have enjoyed playing the games with their families.” **Ms Philadelphia Love, 3/4 Teacher, small school in north east Victoria**

“Love the hands on activities and the 'openness' of most of the tasks. Fluency activities and warm ups are great. Sequence of tasks is also great. We love the links to picture story books - we use them at every level. No worksheets!!”
**Kim, Numeracy Learning Specialist, Bendigo Violet St Primary School**

# Feedback from Top Ten member schools

“Our teachers are actually enjoying teaching maths again! The way Top Ten is set up takes the guesswork out of planning. We love the packs!”
**Ms Michelle Young, Principal, Bruthen PS**

“The packs have high quality mathematics teaching that is hands-on with everything you need in one spot. Fantastic lessons! Making outstanding mathematics teaching easy!”
**Ms Donna Krenn, Assistant Principal, The Basin PS**

“All of our year levels are using it as a starting point for planning. Teachers love the literacy links and connections and the great rich tasks. It has added so much to our teachers' confidence.”
**Ms Jodie Bray, Principal, Hillsmeade PS**

# Feedback from Top Ten member schools

“Top ten unit plans are time savers and provide a hands on, succinct learning approach that allows for differentiation for all students. The units are easy to follow with minimum preparation, link to great picture story books, and all focus on hands on activities with picture examples and extension tasks. They are engaging, fun and thought provoking lessons that allow maths to be provided in real-life contexts.”
**Ashlea, Year 1/2 Teacher, Kialla Central School**

“We have been using Top Ten for a few years now. We love the hands-on engaging lessons, warm ups, assessment resources and support/extension prompts.”
**Marie, Maths Leader, Yarra Glen PS**

“Our school is working on Literacy in Numeracy so the resources are excellent for our needs. The reading resources are interesting and provide a stimulating introduction to mathematical topics.” **Leanne, Maths Leader, Clayton South PS**

“We love the easy to follow instructions and multiple activities to choose from. So much time saved!” **Diana, Numeracy Learning Specialist, Coral Park PS**

# Feedback from Top Ten member schools

“We have just reviewed our whole school model of maths instruction. The Top Ten Numeracy Package fit perfectly into the new model that we created and assisted teachers to implement our model with ease. The engaging hook activities were particularly utilised, as this was the newest element of our model. Staff found that there were many fabulous ideas for these hooks and it actually inspired them to come up with their own ideas. The highlight is the highly engaging activities, particularly the 'zero worksheet' element of the resource. Many other resources just provide you with worksheets to use.”
**Ms Lauren Ray, Curriculum Coordinator, White Hills PS**

“This is a great resource for staff. All components are user friendly and easy to use. The resource has been a great hit with our staff and is being extensively used by teachers at all year levels.”
**Mrs Sue Jones, Principal, Cranbourne Park PS**

“We love the ease of use of this resource. Our staff are really enjoying using the packs.” **Ms Trish Perry, Principal, Lancaster PS**

# Feedback from Top Ten member schools

“Top Ten has reinvigorated and improved maths teaching and learning at Yeo Park within a few short terms. Teachers find the differentiation included in each lesson and within assessment has allowed them to cater to individuals successfully. We love the maths library and lessons!”
**Ms Fiona Wood, Principal, Yeo Park School**

“We love the hands on activities and pictures that show you exactly what to do! Both our students and teachers are happier since we have used Top Ten Maths packs.”
**Nicki, Maths Leader, Narranga PS**

“We are really enjoying using Top Ten and have actively embraced it as an important resource for planning. I have found the assessments very helpful. There has been a lot of positive feedback from parents and students about how much they enjoy learning maths now. Thank you for your amazing resource.”
**Ms Nicole Nolan, Junior School Mathematics Leader,**
**The Hills Grammar School**

“An excellent hands on resource that links literacy and numeracy.”
**Melissa, Leader of Numeracy, Hurstville PS**

# Feedback from Top Ten member schools

“We have had a lot of feedback from our teachers. We are loving the planning resources!”
**Glendenning PS**

“The lessons promote higher order thinking, are engaging, requiring students to organise and record their data/results. Lessons have differentiation and extension activities. Our teachers love the step by step instructions with pictures that demonstrate, suggested questioning, lists of required resources, classroom organisation and teaching tips. Each lesson displays photos to enhance the instructions. Well set out lessons and units.”
**Jodi, Instructional Leader, Mount Austin PS**

“The hands-on tasks and the thinking about maths is inspiring.”
**Mrs Kath Cambetis, Deputy Principal, South Kalgoorlie Primary School**

# Feedback from Top Ten member schools

“The assessments are great and help with our differentiation, then show the value adding and growth students made between the pre and post. Our teams have said that it is a very good, very user friendly program. Our teachers in Foundation have used the Top Ten resource to plan their entire Term 4 program in Number and Algebra. The unit timings are a great help with fitting all the content in. We love that the activities are developmentally sequenced and how each lesson shows you how to differentiate. Our teams also really love the warm-up games, which are very easy to set up, and the links to videos and story books at the start of the lessons. Our Year 3/4 teachers particularly love the photographs of the activities and that they are adaptable.”
**Madeley PS**

“We have been thrilled with the Top Ten Maths program and recommended this widely to other schools as it has been so helpful to my school. The resources have been received highly by my staff.”
**Mrs Kerry Coffey, Principal, Fleetwood PS**

# Feedback from Top Ten member schools

“The Maths packs are all encompassing with play based activities that engage students. Easy to navigate, applicable for all levels and FUN.”
**Hayley, Assistant Principal, Goodooga Central School**

“We were looking for something to make our maths teaching more engaging and real for our students, and we found something really great in Top Ten. The activities are fun and interesting for the students, but also explicitly target needed skills. I’ve especially loved watching students at all levels building a deep conceptual understanding of key maths ideas, which they can easily transfer to subsequent tasks. Best of all, the students are excited when they see maths on the timetable!” **Mr Steven Edwards, Numeracy Leading Teacher, Mill Park PS**

# About us

- **Top Ten was founded and is entirely owned by Australian primary school teachers, not programmers or IT graduates. All units were created, then tried-and-tested in Australian classrooms for over ten years (2010 to present).**
- **Our program is dedicated to bringing the power and joy of materials-based mathematics to life in every Australian classroom and to make engaging, high-impact mathematics instruction achievable for every Australian teacher.**

# How Top Ten is different to other approaches to numeracy instruction

- Top Ten teaches maths using a hands-on approach, not worksheets or click-answer technologies. We take primary maths back to its origins – back to materials.
- While we often use technology (YouTube clips, interactive games, links to students' interests) as engaging hooks to tune-in students, the critical mathematical skills are established through explicit teacher modelling (fishbowls with materials) and with students using manipulatives to develop conceptions and efficient strategies.
- All units are developmentally-sequenced, taking teachers and students on a journey through the big ideas of mathematics.
- Top Ten diagnostic assessments are paper-based, focusing on strategies, not just answers. These then pinpoint developmental gaps using spreadsheets that calculate points-of-need, gaps, growth and value-add before and after each unit. Formative assessments are also built into the units.
- While all lessons and units are developmentally-sequenced and directly aligned to all Australian's states curriculum/syllabus, our units go beyond what to teach and support teachers on a day-by-day basis with how to teach.

# Hands-on Maths Pack inclusions

To maximise each teacher's time, our sequential units and explicit teaching tasks include:

- Photographs of numeracy leaders' classroom modelling, lessons in action in real classrooms and detailed student work samples.
- Warm-ups and engaging hooks.
- Sequential learning intentions and relevant maths vocabulary for every session.
- Pre-planned enabling and extending prompts to cater for the wide range of abilities that exists in any classroom, with extension and support built into every rich task.
- Diagnostic and formative assessments that pinpoint points-of-need, developmental gaps, calculate growth and track impact for targeted teaching.

# Thank you for your time!

**More information and sample packs: www.toptenresources.com,**
**Early Years Planning Package and Years 3-6 Planning Package**

**Enquiries or questions: maths@toptenresources.com**