

# Maths Information Session

September 2022



ABBOTSFORD  
PRIMARY SCHOOL  
亚伯斯福特小学



# Agenda

Section	Session overview
1	Victorian Curriculum - Maths Inc. Roadmap of Skill Development
2	Assessment - Why and How
3	How is Maths taught at school? (we want you to experience it as well!)
4	How can I support my child at home?

# Hours for Maths

Semester One		Semester Two	
Integrated Studies (Deliver in Chinese)	Mathematics (Deliver in English)	Integrated Studies (Deliver in English)	Mathematics (Deliver in Chinese)
6 x 50 minute sessions	6 x 50 minute sessions	6 x 50 minute sessions	6 x 50 minute sessions

# Victorian Curriculum - Maths

## Section 1

# Structure of Maths curriculum

The curriculum is organised by the three strands of Number and Algebra, Measurement and Geometry, and Statistics and Probability.

Strands	Number and Algebra	Measurement and Geometry	Statistics and Probability
Sub-strands	Number and place value	Using units of measurement	Chance
	Fractions and decimals	Shape	Data representation and interpretation
	Real numbers	Geometric reasoning	
	Money and financial mathematics	Location and transformation	
	Patterns and algebra	Pythagoras and trigonometry	
	Linear and non-linear relationships		

# Roadmap of Skill Development

The background features a series of overlapping, semi-transparent green triangles and polygons of various shades, ranging from light lime green to dark forest green. These shapes are arranged in a way that creates a sense of depth and movement, particularly on the right side of the page. The overall aesthetic is clean, modern, and professional.

## Foundation Level Content Descriptions

### Number and Algebra

#### Number and place value

Establish understanding of the language and processes of counting by naming numbers in sequences, initially to and from 20, moving from any starting point (VCMNA069)

Connect number names, numerals and quantities, including zero, initially up to 10 and then beyond (VCMNA070)

Subitise small collections of objects (VCMNA071)

Compare, order and make correspondences between collections, initially to 20, and explain reasoning (VCMNA072)

Represent practical situations to model addition and subtraction (VCMNA073)

Represent practical situations to model sharing (VCMNA074)

#### Money and financial mathematics

Represent simple, everyday financial situations involving money (VCMNA075)

#### Patterns and algebra

Sort and classify familiar objects and explain the basis for these classifications, and copy, continue and create patterns with objects and drawings (VCMNA076)

Follow a short sequence of instructions (VCMNA077)

## Level 1 Content Descriptions

### Number and Algebra

#### Number and place value

Develop confidence with number sequences to and from 100 by ones from any starting point. Skip count by twos, fives and tens starting from zero (VCMNA086)

Recognise, model, read, write and order numbers to at least 100. Locate these numbers on a number line (VCMNA087)

Count collections to 100 by partitioning numbers using place value (VCMNA088)

Represent and solve simple addition and subtraction problems using a range of strategies including counting on, partitioning and rearranging parts (VCMNA089)

Represent practical situations that model sharing (VCMNA090)

#### Fractions and decimals

Recognise and describe one-half as one of two equal parts of a whole (VCMNA091)

#### Money and financial mathematics

Recognise, describe and order Australian coins according to their value (VCMNA092)

#### Patterns and algebra

Investigate and describe number patterns formed by skip counting and patterns with objects (VCMNA093)

Recognise the importance of repetition of a process in solving problems (VCMNA094)

## Level 2 Content Descriptions

### Number and Algebra

#### Number and place value

Investigate number sequences, initially those increasing and decreasing by twos, threes, fives and ten from any starting point, then moving to other sequences (VCMNA103)

Recognise, model, represent and order numbers to at least 1000 (VCMNA104)

Group, partition and rearrange collections up to 1000 in hundreds, tens and ones to facilitate more efficient counting (VCMNA105)

Explore the connection between addition and subtraction (VCMNA106)

Solve simple addition and subtraction problems using a range of efficient mental and written strategies (VCMNA107)

Recognise and represent multiplication as repeated addition, groups and arrays (VCMNA108)

Recognise and represent division as grouping into equal sets and solve simple problems using these representations (VCMNA109)

#### Fractions and decimals

Recognise and interpret common uses of halves, quarters and eighths of shapes and collections (VCMNA110)

#### Money and financial mathematics

Count and order small collections of Australian coins and notes according to their value (VCMNA111)



# Assessment - Why and How?

## Section 2

# Why do we assess?

- ▶ For determining individual learning needs (what they know and don't know)
- ▶ For designing differentiated learning tasks (students working at their own level)
- ▶ For ensuring students are on track with the progress expected
- ▶ For reporting and communicating with parents



# Assessment

## Standardised Assessment:

- Maths Online Interview (F-Year 2, Start of School Year )
- On Demand (Year 3-6, Term 2 & 4)
- PAT Maths (Year 2-6, Term 4)
- NAPLAN (Year 3&5, Term 1 from 2023)

## Applied & Mathematical thinking (open-ended):

- Rich Assessment Test (F-Year 6, once per term)

## Ongoing:

- End of Unit Test (F-Year 6)
- In class observation note

### What is the Interview?

- One-on-one interview away from the regular classroom
- Mainly hands-on tasks incorporating concrete materials
- Focus is on mental computation
- Responses focus on strategies that the students use ... not only the correct answer
- 61 questions and sub-questions
- Questions ranging from Level 1 – 4 (VELS)
- Should take 30 - 40 minutes



## Uses of On Demand Testing

Tests are aimed at Years 3 – 10 and are best suited to:

- Determining a student's general ability level relative to the Curriculum.
- Corroborating teacher judgments
- Identifying students' strengths and weaknesses and assisting with forward planning of teaching programs

# Student Examples - End of Unit Test

大月有三十一天。 小月有三十天。  
二月有二十八或二十九天。

填一填

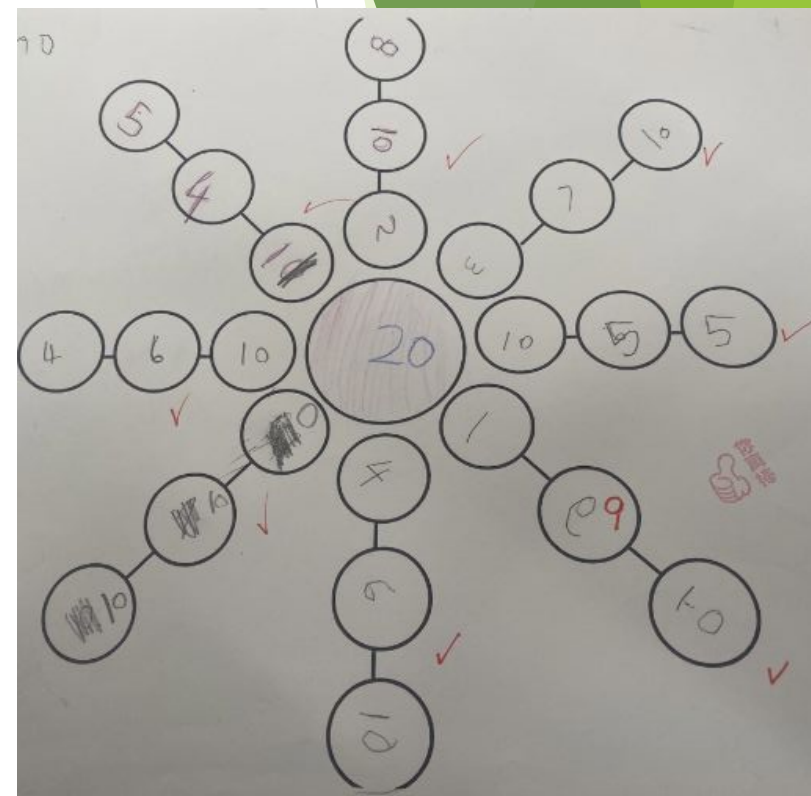
一月(大)有 三十一 天。  
 二月(小)有 二十八或二十九 天。  
 三月(大)有 三十一 天。  
 四月(小)有 三十 天。  
 五月(大)有 三十一 天。  
 六月(小)有 三十 天。  
 七月(大)有 三十一 天。  
 八月(大)有 三十一 天。  
 九月(小)有 三十 天。  
 十月(大)有 三十一 天。  
 十一月(小)有 三十 天。  
 十二月(大)有 三十一 天。

### 长和短

比一比

把最长的毛毛虫涂上蓝色。  
 把最短的毛毛虫涂上棕色。  
 把最其它的毛毛虫涂上绿色。

一共有 二十 条毛毛虫。



# Example of End of Unit Assessment

Maths outcome/concept	Data						Probability				
	Identify a question to gather data	Gather and record data	Gather and record data using tally marks	Represent data in picture graphs	Represent data in bar graphs	Make statements about data (most/least popular)	Make comparisons between sets of data (prefer, more than, less than)	Matches events with likelihood	Identifies certain and impossible events	Conduct chance experiments and track and identify variations in data L3	Explain probability of dice rolls L3
	3	2	1	3	2	3	1	2	2	2	1
	2	1	0	2	1	2	0		2	1	0
	2	1	1	2				2		2	
	3	3	3	3	3	3	2	3	2	3	3
	3	3	3	3	3	3	2	3	3	2	2
	3	3	3	3	3	3	2		3	3	2
	3	2	2	2	2	2	1	2	2	2	
	3	3	3	3	3	3	3	3	3	3	3
	3	3	2	3	3	3	2	3	2	2	1
	3	3	2	2	2	2	1	2	2	2	1
	3	3	2	3	3	3	2	3	2	3	2
	3	3	3	3	3	3	3	2	2	2	
	2	3	2	2	2	2	1	2	2	2	
	3	3	3	3	3	3	2	3	2	3	2
	3	3	3	3	2	3	1	3	2	2	2
	3	3	3	3	3	3	2	3	3	2	
	3	3	3	3	3	3	2	3	2	2	2
	2	3	2	2	2	2	1	1	2		1
	3	3	2	3	2	3	1	1	2	2	1
	3	3	3	3	2	3	1	3	3	2	2
	3	3	3	3	2	3	3	3	3	2	
	3	3	3	3	3	3	3	3	2		
	3	2	2	3		3		1	1	2	
	3	3	3	3	3	3	2	3	2	2	3

Student Names

# Student Examples - Open-ended tasks

**TASK IN SHEET** **Booze Buses**

- Write down an estimate of the number of "booze buses" on this sheet.
- Now work out a way to give the exact number of booze buses on the page, without counting them all one by one.

Party... home.

Handwritten calculations for the 'Booze Buses' task:

$$12+12+12=36+12+3+3=108+12+3+12+3=528+12+3=948+12+12+3+3=1185$$

$$12+12+12=36+12+3+3=108+12+3+12+3=528+12+3=948+12+12+3+3=1185$$

$$12+12+12=36+12+3+3=108+12+3+12+3=528+12+3=948+12+12+3+3=1185$$

$$12+12+12=36+12+3+3=108+12+3+12+3=528+12+3=948+12+12+3+3=1185$$

Handwritten calculations and explanation for the 'Booze Buses' task:

60x16=960  
16x6=96  
960+96=1056

960+26=986  
986+26=1012

24  
24  
24  
24  
96

Explain  
I cut the two top and bottom rows off, then counted the twos down the first column and twos across the first row.

Then I had 60x16 so I wrote 16 sixties and added the sixes together which made 96. After I wrote 26 30 I added two 26s to get 1,012.

Final Answer  
1,012  
One thousand and twelve

Estimate 2369  
60x calculation

I counted by 60s and then I past the to rows at the top to get my answer and then I used the thing blow to put them 26 to get together.

$$60 \times 16 = 960$$

$$960 + 96 = 1056$$

$$1056 + 26 = 1082$$

$$1082 + 26 = 1108$$

$$1108 + 26 = 1134$$

$$1134 + 26 = 1160$$

$$1160 + 26 = 1186$$

$$1186 + 26 = 1212$$

$$1212 + 26 = 1238$$

$$1238 + 26 = 1264$$

$$1264 + 26 = 1290$$

$$1290 + 26 = 1316$$

$$1316 + 26 = 1342$$

$$1342 + 26 = 1368$$

$$1368 + 26 = 1394$$

$$1394 + 26 = 1420$$

$$1420 + 26 = 1446$$

$$1446 + 26 = 1472$$

$$1472 + 26 = 1498$$

$$1498 + 26 = 1524$$

$$1524 + 26 = 1550$$

$$1550 + 26 = 1576$$

$$1576 + 26 = 1602$$

$$1602 + 26 = 1628$$

$$1628 + 26 = 1654$$

$$1654 + 26 = 1680$$

$$1680 + 26 = 1706$$

$$1706 + 26 = 1732$$

$$1732 + 26 = 1758$$

$$1758 + 26 = 1784$$

$$1784 + 26 = 1810$$

$$1810 + 26 = 1836$$

$$1836 + 26 = 1862$$

$$1862 + 26 = 1888$$

$$1888 + 26 = 1914$$

$$1914 + 26 = 1940$$

$$1940 + 26 = 1966$$

$$1966 + 26 = 1992$$

$$1992 + 26 = 2018$$

$$2018 + 26 = 2044$$

$$2044 + 26 = 2070$$

$$2070 + 26 = 2096$$

$$2096 + 26 = 2122$$

$$2122 + 26 = 2148$$

$$2148 + 26 = 2174$$

$$2174 + 26 = 2200$$

$$2200 + 26 = 2226$$

$$2226 + 26 = 2252$$

$$2252 + 26 = 2278$$

$$2278 + 26 = 2304$$

$$2304 + 26 = 2330$$

$$2330 + 26 = 2356$$

$$2356 + 26 = 2382$$

$$2382 + 26 = 2408$$

$$2408 + 26 = 2434$$

$$2434 + 26 = 2460$$

$$2460 + 26 = 2486$$

$$2486 + 26 = 2512$$

$$2512 + 26 = 2538$$

$$2538 + 26 = 2564$$

$$2564 + 26 = 2590$$

$$2590 + 26 = 2616$$

$$2616 + 26 = 2642$$

$$2642 + 26 = 2668$$

$$2668 + 26 = 2694$$

$$2694 + 26 = 2720$$

$$2720 + 26 = 2746$$

$$2746 + 26 = 2772$$

$$2772 + 26 = 2798$$

$$2798 + 26 = 2824$$

$$2824 + 26 = 2850$$

$$2850 + 26 = 2876$$

$$2876 + 26 = 2902$$

$$2902 + 26 = 2928$$

$$2928 + 26 = 2954$$

$$2954 + 26 = 2980$$

$$2980 + 26 = 3006$$

$$3006 + 26 = 3032$$

$$3032 + 26 = 3058$$

$$3058 + 26 = 3084$$

$$3084 + 26 = 3110$$

$$3110 + 26 = 3136$$

$$3136 + 26 = 3162$$

$$3162 + 26 = 3188$$

$$3188 + 26 = 3214$$

$$3214 + 26 = 3240$$

$$3240 + 26 = 3266$$

$$3266 + 26 = 3292$$

$$3292 + 26 = 3318$$

$$3318 + 26 = 3344$$

$$3344 + 26 = 3370$$

$$3370 + 26 = 3396$$

$$3396 + 26 = 3422$$

$$3422 + 26 = 3448$$

$$3448 + 26 = 3474$$

$$3474 + 26 = 3500$$

$$3500 + 26 = 3526$$

$$3526 + 26 = 3552$$

$$3552 + 26 = 3578$$

$$3578 + 26 = 3604$$

$$3604 + 26 = 3630$$

$$3630 + 26 = 3656$$

$$3656 + 26 = 3682$$

$$3682 + 26 = 3708$$

$$3708 + 26 = 3734$$

$$3734 + 26 = 3760$$

$$3760 + 26 = 3786$$

$$3786 + 26 = 3812$$

$$3812 + 26 = 3838$$

$$3838 + 26 = 3864$$

$$3864 + 26 = 3890$$

$$3890 + 26 = 3916$$

$$3916 + 26 = 3942$$

$$3942 + 26 = 3968$$

$$3968 + 26 = 3994$$

$$3994 + 26 = 4020$$

$$4020 + 26 = 4046$$

$$4046 + 26 = 4072$$

$$4072 + 26 = 4098$$

$$4098 + 26 = 4124$$

$$4124 + 26 = 4150$$

$$4150 + 26 = 4176$$

$$4176 + 26 = 4202$$

$$4202 + 26 = 4228$$

$$4228 + 26 = 4254$$

$$4254 + 26 = 4280$$

$$4280 + 26 = 4306$$

$$4306 + 26 = 4332$$

$$4332 + 26 = 4358$$

$$4358 + 26 = 4384$$

$$4384 + 26 = 4410$$

$$4410 + 26 = 4436$$

$$4436 + 26 = 4462$$

$$4462 + 26 = 4488$$

$$4488 + 26 = 4514$$

$$4514 + 26 = 4540$$

$$4540 + 26 = 4566$$

$$4566 + 26 = 4592$$

$$4592 + 26 = 4618$$

$$4618 + 26 = 4644$$

$$4644 + 26 = 4670$$

$$4670 + 26 = 4696$$

$$4696 + 26 = 4722$$

$$4722 + 26 = 4748$$

$$4748 + 26 = 4774$$

$$4774 + 26 = 4800$$

$$4800 + 26 = 4826$$

$$4826 + 26 = 4852$$

$$4852 + 26 = 4878$$

$$4878 + 26 = 4904$$

$$4904 + 26 = 4930$$

$$4930 + 26 = 4956$$

$$4956 + 26 = 4982$$

$$4982 + 26 = 5008$$

$$5008 + 26 = 5034$$

$$5034 + 26 = 5060$$

$$5060 + 26 = 5086$$

$$5086 + 26 = 5112$$

$$5112 + 26 = 5138$$

$$5138 + 26 = 5164$$

$$5164 + 26 = 5190$$

$$5190 + 26 = 5216$$

$$5216 + 26 = 5242$$

$$5242 + 26 = 5268$$

$$5268 + 26 = 5294$$

$$5294 + 26 = 5320$$

$$5320 + 26 = 5346$$

$$5346 + 26 = 5372$$

$$5372 + 26 = 5398$$

$$5398 + 26 = 5424$$

$$5424 + 26 = 5450$$

$$5450 + 26 = 5476$$

$$5476 + 26 = 5502$$

$$5502 + 26 = 5528$$

$$5528 + 26 = 5554$$

$$5554 + 26 = 5580$$

$$5580 + 26 = 5606$$

$$5606 + 26 = 5632$$

$$5632 + 26 = 5658$$

$$5658 + 26 = 5684$$

$$5684 + 26 = 5710$$

$$5710 + 26 = 5736$$

$$5736 + 26 = 5762$$

$$5762 + 26 = 5788$$

$$5788 + 26 = 5814$$

$$5814 + 26 = 5840$$

$$5840 + 26 = 5866$$

$$5866 + 26 = 5892$$

$$5892 + 26 = 5918$$

$$5918 + 26 = 5944$$

$$5944 + 26 = 5970$$

$$5970 + 26 = 5996$$

$$5996 + 26 = 6022$$

$$6022 + 26 = 6048$$

$$6048 + 26 = 6074$$

$$6074 + 26 = 6100$$

$$6100 + 26 = 6126$$

$$6126 + 26 = 6152$$

$$6152 + 26 = 6178$$

$$6178 + 26 = 6204$$

$$6204 + 26 = 6230$$

$$6230 + 26 = 6256$$

$$6256 + 26 = 6282$$

$$6282 + 26 = 6308$$

$$6308 + 26 = 6334$$

$$6334 + 26 = 6360$$

$$6360 + 26 = 6386$$

$$6386 + 26 = 6412$$

$$6412 + 26 = 6438$$

$$6438 + 26 = 6464$$

$$6464 + 26 = 6490$$

$$6490 + 26 = 6516$$

$$6516 + 26 = 6542$$

$$6542 + 26 = 6568$$

$$6568 + 26 = 6594$$

$$6594 + 26 = 6620$$

$$6620 + 26 = 6646$$

$$6646 + 26 = 6672$$

$$6672 + 26 = 6698$$

$$6698 + 26 = 6724$$

$$6724 + 26 = 6750$$

$$6750 + 26 = 6776$$

$$6776 + 26 = 6802$$

$$6802 + 26 = 6828$$

$$6828 + 26 = 6854$$

$$6854 + 26 = 6880$$

$$6880 + 26 = 6906$$

$$6906 + 26 = 6932$$

$$6932 + 26 = 6958$$

$$6958 + 26 = 6984$$

$$6984 + 26 = 7010$$

$$7010 + 26 = 7036$$

$$7036 + 26 = 7062$$

$$7062 + 26 = 7088$$

$$7088 + 26 = 7114$$

$$7114 + 26 = 7140$$

$$7140 + 26 = 7166$$

$$7166 + 26 = 7192$$

$$7192 + 26 = 7218$$

$$7218 + 26 = 7244$$

$$7244 + 26 = 7270$$

$$7270 + 26 = 7296$$

$$7296 + 26 = 7322$$

$$7322 + 26 = 7348$$

$$7348 + 26 = 7374$$

$$7374 + 26 = 7400$$

$$7400 + 26 = 7426$$

$$7426 + 26 = 7452$$

$$7452 + 26 = 7478$$

$$7478 + 26 = 7504$$

$$7504 + 26 = 7530$$

$$7530 + 26 = 7556$$

$$7556 + 26 = 7582$$

$$7582 + 26 = 7608$$

$$7608 + 26 = 7634$$

$$7634 + 26 = 7660$$

$$7660 + 26 = 7686$$

$$7686 + 26 = 7712$$

$$7712 + 26 = 7738$$

$$7738 + 26 = 7764$$

$$7764 + 26 = 7790$$

$$7790 + 26 = 7816$$

$$7816 + 26 = 7842$$

$$7842 + 26 = 7868$$

$$7868 + 26 = 7894$$

$$7894 + 26 = 7920$$

$$7920 + 26 = 7946$$

$$7946 + 26 = 7972$$

$$7972 + 26 = 7998$$

$$7998 + 26 = 8024$$

$$8024 + 26 = 8050$$

$$8050 + 26 = 8076$$

$$8076 + 26 = 8102$$

$$8102 + 26 = 8128$$

$$8128 + 26 = 8154$$

$$8154 + 26 = 8180$$

$$8180 + 26 = 8206$$

$$8206 + 26 = 8232$$

$$8232 + 26 = 8258$$

$$8258 + 26 = 8284$$

$$8284 + 26 = 8310$$

$$8310 + 26 = 8336$$

$$8336 + 26 = 8362$$

$$8362 + 26 = 8388$$

$$8388 + 26 = 8414$$

$$8414 + 26 = 8440$$

$$8440 + 26 = 8466$$

$$8466 + 26 = 8492$$

$$8492 + 26 = 8518$$

$$8518 + 26 = 8544$$

$$8544 + 26 = 8570$$

$$8570 + 26 = 8596$$

$$8596 + 26 = 8622$$

$$8622 + 26 = 8648$$

$$8648 + 26 = 8674$$

$$8674 + 26 = 8700$$

$$8700 + 26 = 8726$$

$$8726 + 26 = 8752$$

$$8752 + 26 = 8778$$

$$8778 + 26 = 8804$$

$$8804 + 26 = 8830$$

$$8830 + 26 = 8856$$

$$8856 + 26 = 8882$$

$$8882 + 26 = 8908$$

$$8908 + 26 = 8934$$

$$8934 + 26 = 8960$$

$$8960 + 26 = 8986$$

$$8986 + 26 = 9012$$

$$9012 + 26 = 9038$$

$$9038 + 26 = 9064$$

$$9064 + 26 = 9090$$

$$9090 + 26 = 9116$$

$$9116 + 26 = 9142$$

$$9142 + 26 = 9168$$

$$9168 + 26 = 9194$$

$$9194 + 26 = 9220$$

$$9220 + 26 = 9246$$

$$9246 + 26 = 9272$$

$$9272 + 26 = 9298$$

$$9298 + 26 = 9324$$

$$9324 + 26 = 9350$$

$$9350 + 26 = 9376$$

$$9376 + 26 = 9402$$

$$9402 + 26 = 9428$$

$$9428 + 26 = 9454$$

$$9454 + 26 = 9480$$

$$9480 + 26 = 9506$$

$$9506 + 26 = 9532$$

$$9532 + 26 = 9558$$

$$9558 + 26 = 9584$$

$$9584 + 26 = 9610$$

$$9610 + 26 = 9636$$

$$9636 + 26 = 9662$$

$$9662 + 26 = 9688$$

$$9688 + 26 = 9714$$

$$9714 + 26 = 9740$$

$$9740 + 26 = 9766$$

$$9766 + 26 = 9792$$

$$9792 + 26 = 9818$$

$$9818 + 26 = 9844$$

$$9844 + 26 = 9870$$

$$9870 + 26 = 9896$$

$$9896 + 26 = 9922$$

$$9922 + 26 = 9948$$

$$9948 + 26 = 9974$$

$$9974 + 26 = 10000$$

Estimate 23968

Calculation:  $3 \times 62 = 186$   
 $10 \times 64 = 640$   
 $826$   
 $3 \times 62 = 186$   
 $1012$

explanation: I worked it out by taking the left and right sides and saw the last 3 had 2 less so I did one first by counting 3 on each side 62 then the second 62x3 and added them together

Final answer: 1012

# Example of Open-Ended Assessment

		Little Progress	Some Progress	Substantial Progress	Task accomplished	Goes Beyond	Additional comment
		attempted task but numbers and diagrams irrelevant to task, e.g. focus is on number of cards required rather than number of dots	modelled the task in some way but little progress in finding the total. Estimate indicates little grasp of the task.	reasonable strategy evident and estimate or total close to 55	correct drawing of all features at level	generates a method or rule to find the total, which is generalisable to any number of cards and successfully applies 1 to 1 to 20 cards (210 dots)	
Student Names			V				
						V	
						V	strategy: drawings
					V		
						V	
					V		correct strategy for 10 cards, but doubled 55 for 20 cards
		V					counted how many cards are there altogether rather the dots
					V		strategy: drawings
						V	correct strategy with a calculation error
					V		correct strategy for 10 cards, but doubled 55 for 20 cards
		V					wrote "7" for 10 cards; "20" for 20 cards

# How is *Maths* taught at school?

## Section 3

# How is Number & ALgebra taught?

## Activity 1:

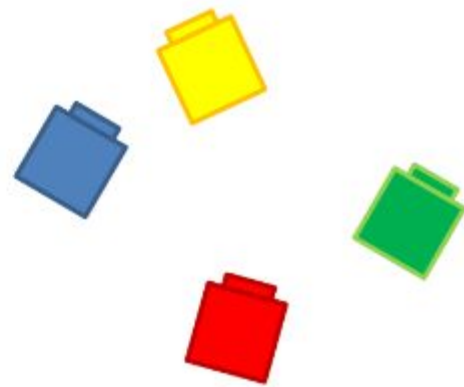
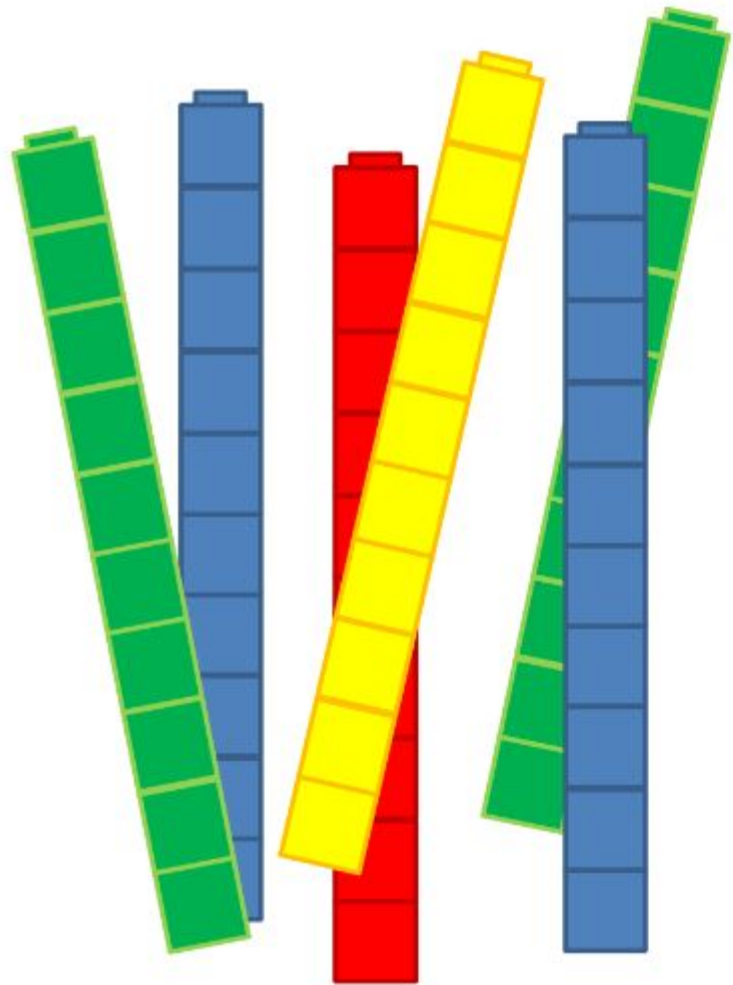
**Look** – short amount of time to view the quantity; pay attention to its structure; close your eyes and visualise

**Make** – create what you visualise

**Check** – compare and check for accuracy

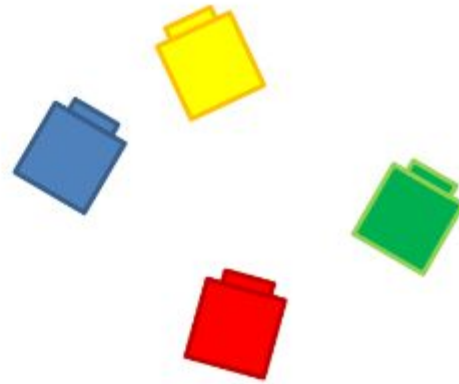
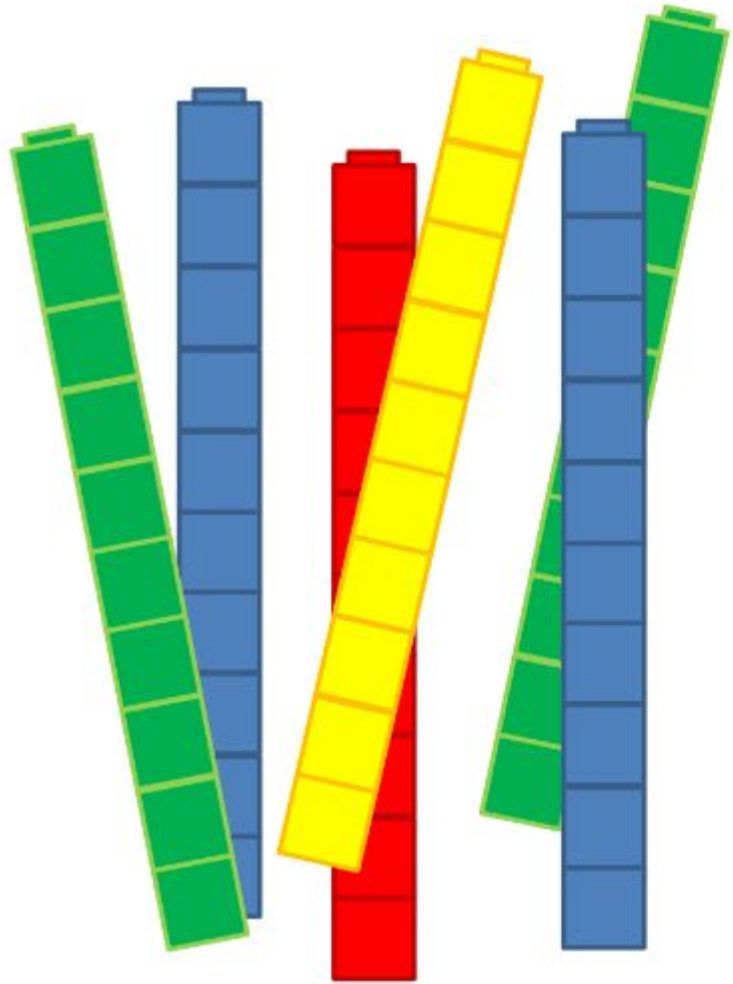
**Adjust** – change if required

# Look



# Make

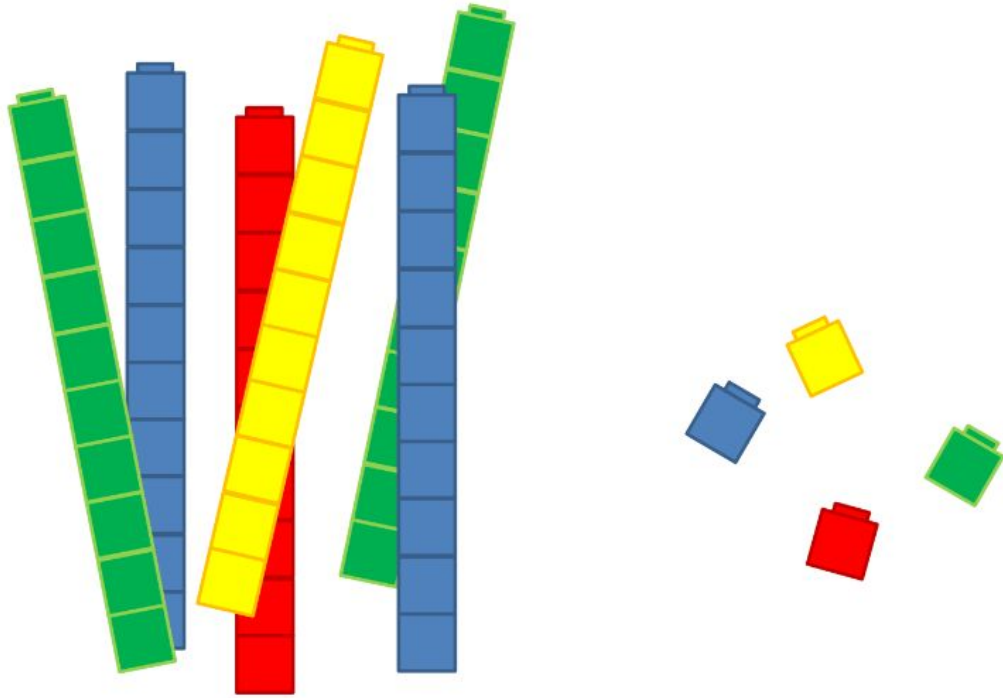
# Check



**Adjust**

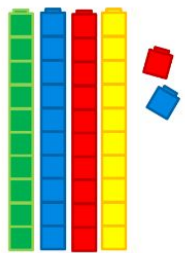


# Discuss (reasoning opportunity)

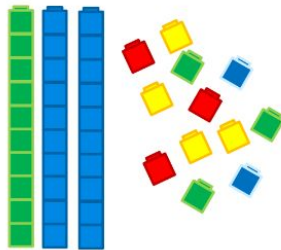


- What quantity did you see and how do you know?
- What was important to notice and why?
- What is the numeral (symbol) for that quantity?
- How could you **rename** that quantity?

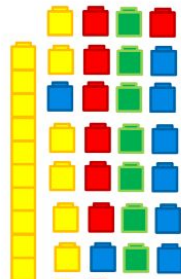
## Equivalent representations for 42



4 tens and 2 ones



3 tens and 12 ones



1 ten and 32 ones

- What is one more? What is one less?
- What is ten more? What is ten less?
- What if we added 2 tens more? How many now?

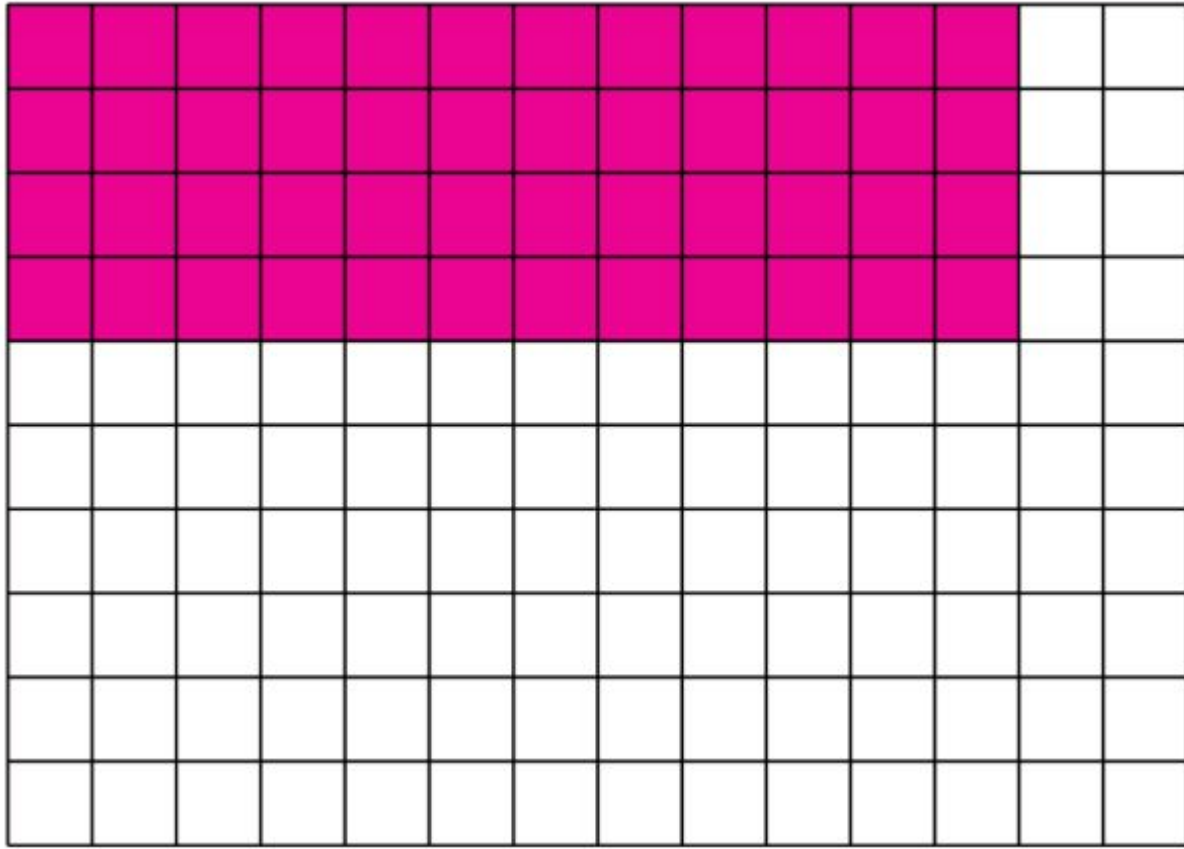


# How is Measurement & Geometry taught? (2)

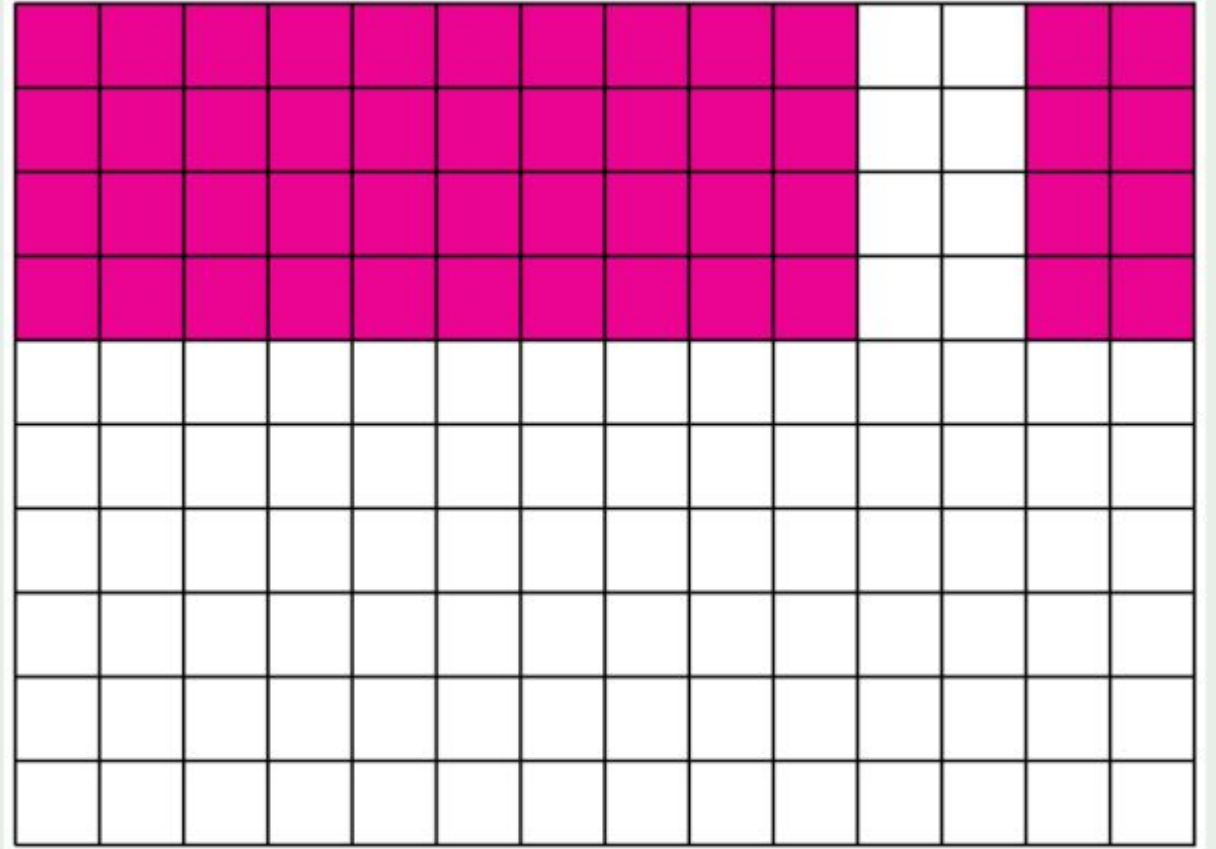
## Activity 2:

### Landgrab

- Gameboard: Grip Paper; Dice: 6-sided and 20-sided
- Roll the Game Dice. The result of the roll determines the region to be marked. For example, a 4 and a 12 could be recorded as 4 twelves (4 rows of 12) or 12 fours (12 rows of 4). A border is drawn around the region and the relevant fact is recorded in the region.
- The object of the game is to cover as much of the grid as possible without overlapping.
- At any time in the game a player can decide to partition or split the region. For example, instead of 4 twelves, a player may decide to enclose two separate regions such as 4 tens and 4 twos, or 4 sixes and 4 sixes.
- Note: If a player cannot create their array(s), they must skip their turn.

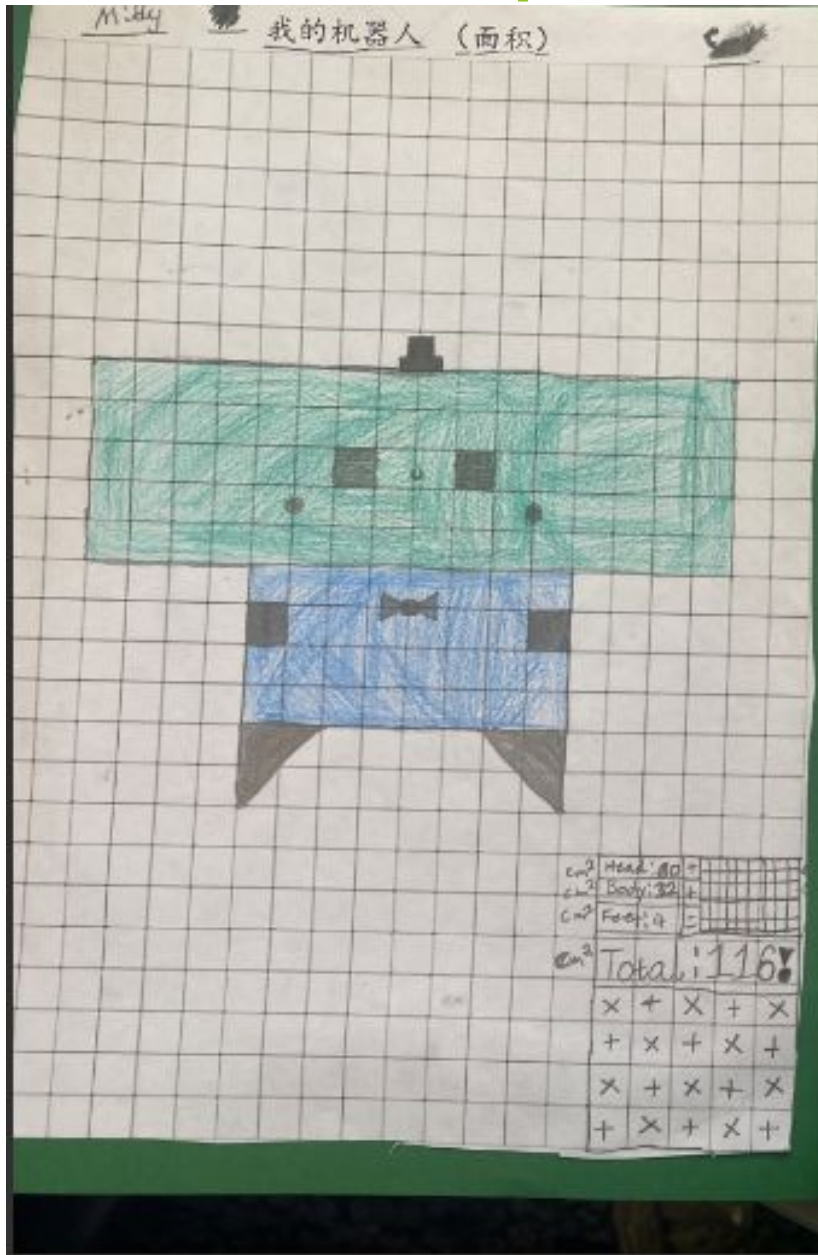


$$A=4 \times 12=48$$

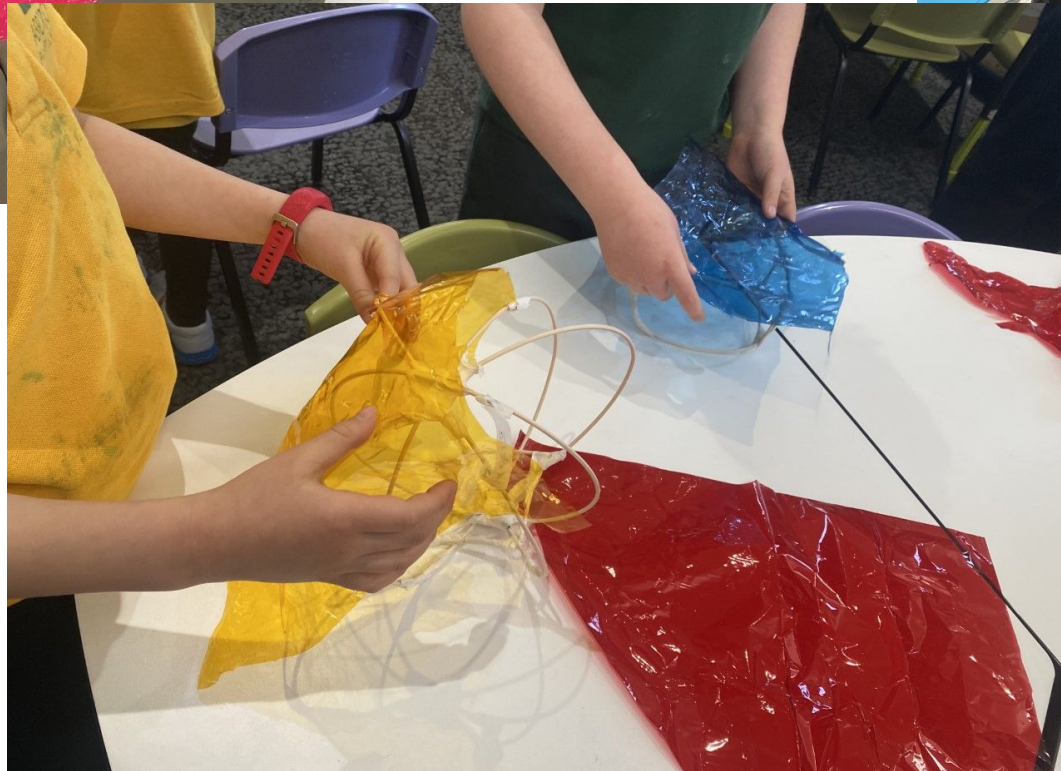


$$A=(4 \times 10)+(4 \times 2)=48$$

# Student Examples



# Student Examples



# How can I support my child?

## Section 4

# What you can do at home



## Monday

Make collections.

- Collect objects from the outdoors, like stones, leaves or twigs.
- Sort them into groups and count how many items are in each group.

How many items are there in your favourite collection?



## Tuesday

Try measuring objects.

- Explore ways of measuring using sticks, foot prints or hand lengths.
- Measure the height of people in your family.

Who is the tallest? Who is the shortest?



## Wednesday

Work out ways to measure ingredients for a recipe.

- Explore ways of measuring using a cup, a jug, a teaspoon and a tablespoon.
- If you have kitchen scales weigh different foods such as a box of flour, a bag of rice or some vegetables.

Put the things you have weighed in order from lightest to heaviest.



## Thursday

Think of ways of moving with maths outdoors.

- Find ways to balance your weight with a friend on the seesaw
- How many jumps does it take to get from the park bench to the see-saw?

What other maths games can you play in the playground?

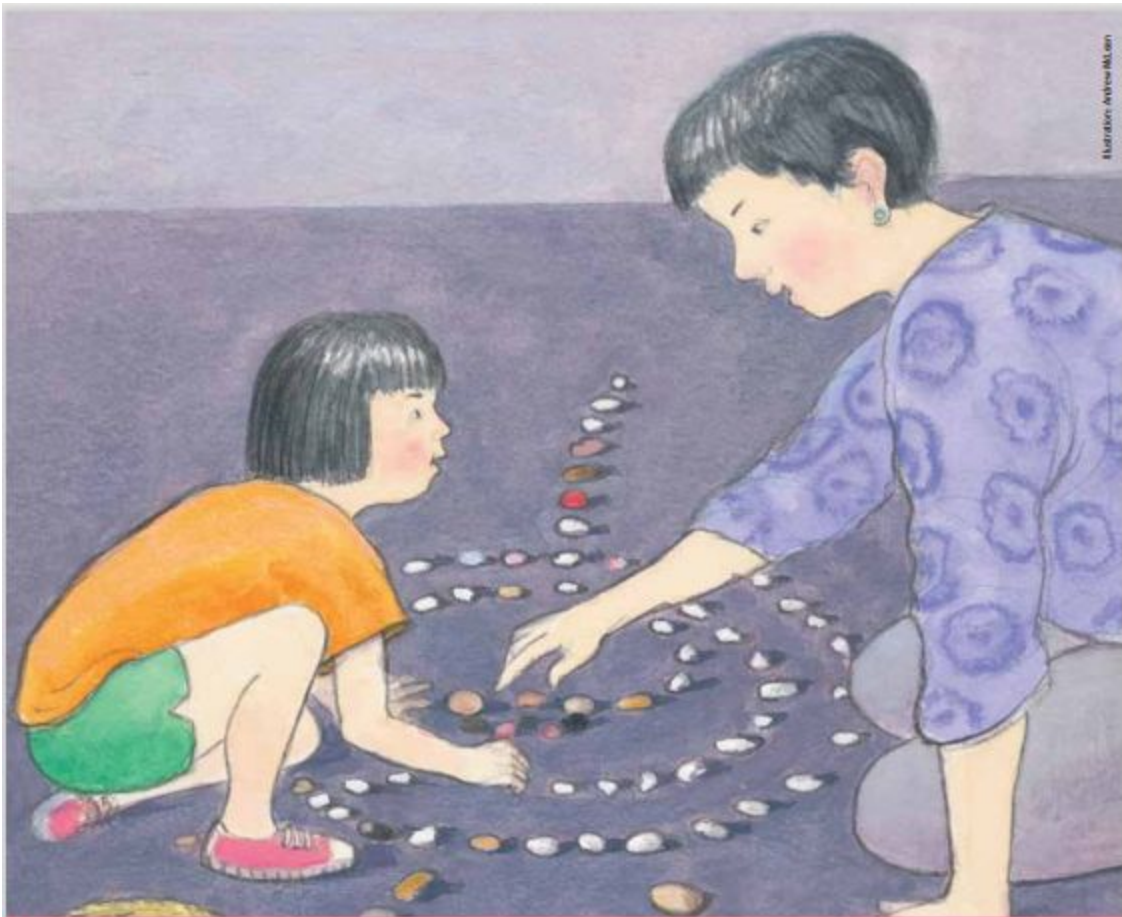


Illustration: Andrew Milson

## Friday

Find patterns.

- Try following a pattern someone else has started and continue the pattern on your own.
- Make a pattern using pebbles, pegs or pieces of coloured paper.

What patterns can you see around you?

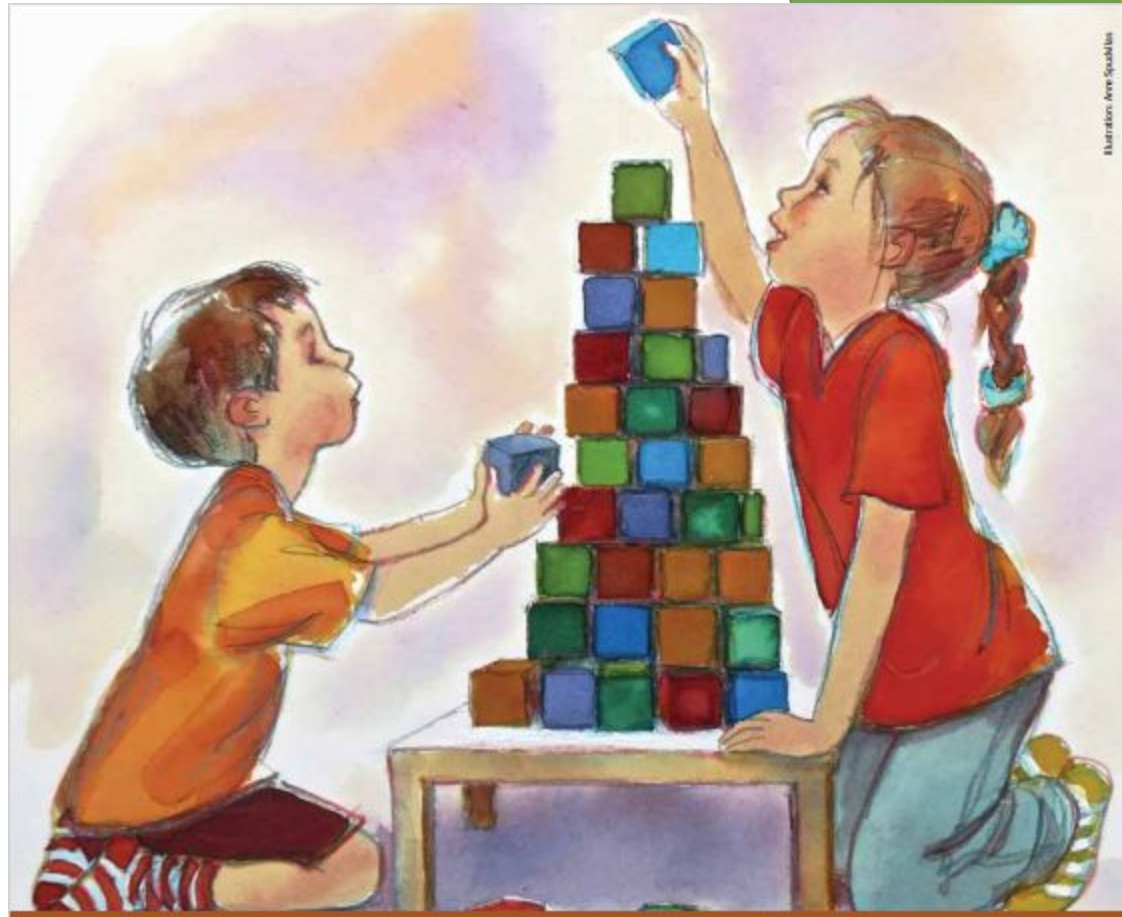


Illustration: Ann Spashilis

## Saturday

Stack building blocks.

- Build a tower as high as you can.
- Can you build a tower that is taller than you are?

What other structures can you make with building blocks?



# Sunday

Seek out shapes.

- Start and finish a jigsaw puzzle.
- When you wipe down the table after a meal, talk about which side of the table is longer, shorter, what's its shape?

Can you draw some of the shapes you can see inside your house?

# Good resources to use at home

## Activities

This collection of activities, organized by mathematical content, uses familiar routines that can be used by students, families, and teachers in a variety of settings.

Choose your grade level →



**Math At Home**

[mathlearningcenter.org](https://www.mathlearningcenter.org)

Which One Doesn't Belong? Notice the Numbers addition	What Comes Next? Counting Coins addition, place value	What Comes Next? Craft Stick Sleuths counting, place value	Math in Our World: Two Little Libraries addition
Same & Different: Missing Number addition, subtraction	Today's Number: 10 addition, place value, subtraction	Math in Our World: Two Tall Candles measurement & data, subtraction	Same & Different: Numbers on a Line addition, counting, place value
How Many Are Hidden? Bashful Beads addition	Target 10 addition	Ten & More Bingo addition, place value	Work Place: Beat You to Five addition, counting
Work Place: Which Coin Will Win? counting, measurement & data	Work Place: Ten & More addition, place value	Work Place: Flip & Write counting, measurement & data	



$5 - 3 = ?$

A

---

$3 + ? = 5$

B

- How are pictures A and B mathematically the same, and how are they different?
  - A and B are the same because ...
  - A and B are different because ...
- Make a third picture that represents a problem with a missing number. Explain how your picture is the same as pictures A and B, and how it is different.

[Printable Version](#)

Google doc for printing and copying

[Reference for Educators](#)

Sample problems and solutions

# Good resources to use at home



## Eightness of Eight

Age 5 to 7  
Challenge Level ★

What do you see as you watch this video? Can you create a similar video for the number 12?



## Paper Patchwork 1

Age 5 to 7  
Challenge Level ★

Can you work out what shape is made when this piece of paper is folded up using the crease pattern shown?



## En-counters for Two

Age 5 to 7  
Challenge Level ★

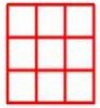
Arranging counters activity for adult and child. Can you create the pattern of counters that your partner has made, just by asking questions?



## Break it Up!

Age 5 to 11  
Challenge Level ★

In how many different ways can you break up a stick of seven interlocking cubes? Now try with a stick of eight cubes and a stick of six cubes. What do you notice?



## Ladybird Box

Age 5 to 11  
Challenge Level ★★

Place six toy ladybirds into the box so that there are two ladybirds in every column and every row.



## Nim-7 for Two

Age 5 to 14  
Challenge Level ★

Nim-7 game for an adult and child. Who will be the one to take the last counter?

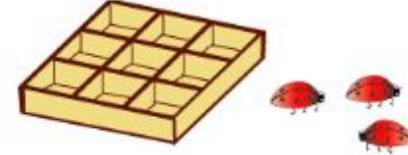
## Maths at Home

<https://nrich.maths.org/maths-at-home>

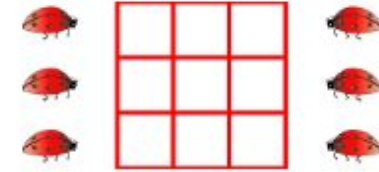
## Ladybird Box

Age 5 to 11  
Challenge Level ★★

Some toy ladybirds are kept in this box which has 9 little square compartments.

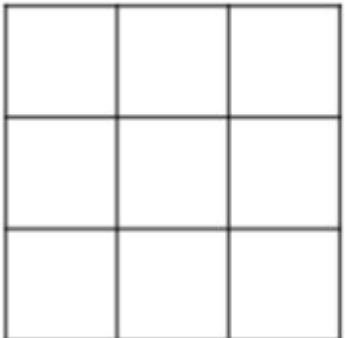


Can you place six ladybirds into the box so that there are just two ladybirds in every column and every row?




You could try this interactivity.

Place the six toy ladybirds in the box so that there are two in each row and column



Can you find other ways of doing it?



# REMOTE LEARNING RESOURCES

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Are you looking for ways to support your child's **(English) literacy** and **numeracy** development at home?

To get an overview of the role you can play, start with the following guides for parents:

- [Literacy and Numeracy - Tips to Help Your Child Everyday](#)
- [Parents' guide to helping children with reading and writing at home](#)

Over the last two years, however, the Department of Education in Australia and New Zealand have created webpages featuring home-based learning resources in response to lockdowns and remote learning requirements. These websites have continued to play an important role for students who are required to isolate in 2022.

Abbotsford Primary School has collated the links to these great websites for your convenience:

## Victoria

[Literacy and numeracy resources for remote learning](#) (This page has excellent links!)

[Home Learning Resources](#)

[201 Literacy and maths tips to help your child](#)

**Link:** <https://www.abbotsfordps.vic.edu.au/page/84/Remote-Learning-Resources>

Q&A