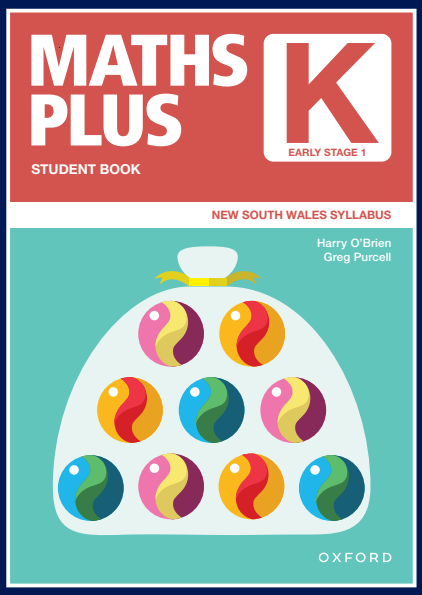
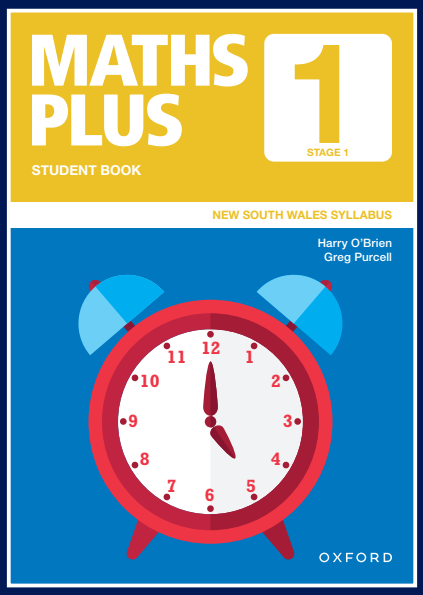
OXFORD

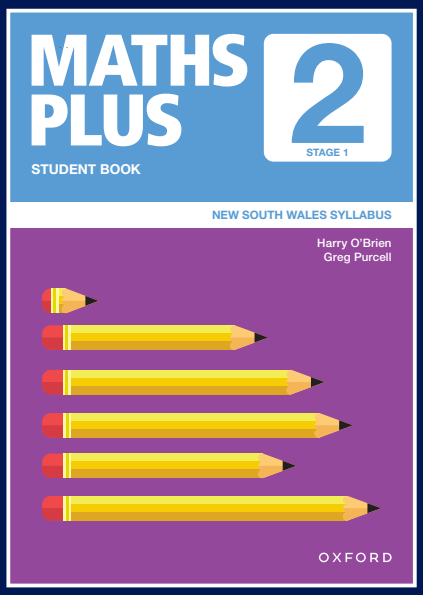
MATHS PLUS

Series overview and sample pages for the new NSW Syllabus

Help students build their skills, develop understanding and make connections over time







NEW edition for the NESA Mathematics K-2 Syllabus coming in 2022!

To learn more about this series, visit **oup.com.au/mathsplus**

Practise, master, assess

TEACHING AND LEARNING APPROACH

Maths Plus is a rigorous mathematics program combining many essential elements to provide **spiralling content** where concepts are explored, then built on throughout the year and across year levels. The spiral approach helps students develop robust recall of information, consolidating learning and increasing their mathematical fluency.

It is a multifaceted approach introducing **varied learning experiences** such as interactive concept exploration, hands-on real world learning, daily practice and consolidation activities, problem solving tasks, extra support and extension activities and mentals and homework activities. It also enables **tracking and reviewing** of student learning through post-test assessment.

STUDENT RESOURCES:

Maths Plus Student Books

- Student activity pages are colour-coded and provide complete coverage of all outcomes from the new NESA Mathematics Syllabus for 2023 implementation.
- Four diagnostic term reviews per year level, to assess concepts and skills through summative assessment.
- Provides opportunities for spiralled learning and practice, skill consolidation and on-going development of the working mathematically processes: communicating, understanding and fluency, reasoning and problem-solving.

Maths Plus Post-Assessment Books

The *Maths Plus Post-Assessment Books* are an integral part of the *Maths Plus* series, and come packaged with the corresponding Student Books. They provide a quick to administer and mark, post-test for every topic to support teachers in the measurement of student learning growth and understanding.

Maths Plus Mentals and Homework Books

The *Maths Plus Mentals and Homework Books* are an essential component of the program which provide revision and consolidation activities that directly correspond to concepts and units in the Student Books, one week after they are taught in the classroom.

TEACHER RESOURCES:

The ***Maths Plus Teacher Dashboard*** is a digital tool providing an explicit and comprehensive teaching program along with projectible multi-modal support for whole-class and small group instruction, including:

- Digital interactives to introduce and explore concepts
- Teaching Notes for every lesson, including suggestions for hands-on real world learning, daily practice and consolidation activities, problem solving tasks, differentiation through support and extension activities as well as a reflection and suggested formative assessment.
- Printable Investigation units providing additional opportunities for students to develop understanding and fluency in mathematics through exploring real world connections and problem solving to apply their knowledge, show their understanding and communicate their thinking and reasoning.
- Scope & Sequence and Term Plans
- Pedagogy videos – e.g. potential difficulties
- Assessment support, grading guides and all Student Book, Assessment Book, Diagnostic Term Review and Mentals & Homework Book answers
- Printable Activity Sheets and Black Line Masters

NSW CURRICULUM CHANGE FOR YEARS K-2

Maths Plus is fully aligned with the NESA Syllabus for 2023. The series is organised into key concepts within the strands of Number, Algebra, Measurement, Space, Statistics and Probability. 'Working mathematically' processes are incorporated across each year level, encouraging students to explore and link mathematical concepts, choose appropriate problem-solving strategies, and explain their thinking and reasoning.

With *Maths Plus*, teachers can be confident that students will

- develop numeracy skills and mathematical fluency
- identify, explain and use patterns and relationships in mathematical thinking
- develop reasoning and problem-solving abilities
- apply mathematical knowledge and understanding to real-world situations

To the teacher

The *Maths Plus* NSW series for K-2 is based on the NESA Syllabus for 2023 implementation. Each book after K level builds upon prior knowledge and works towards understanding of the achievement standards for the relevant year level and beyond. *Maths Plus* provides students with opportunities to sequentially develop their skills and knowledge in the strands of: **Number and Algebra**, **Measurement and Space**, **Statistics and Probability**.

Series components

Student Books

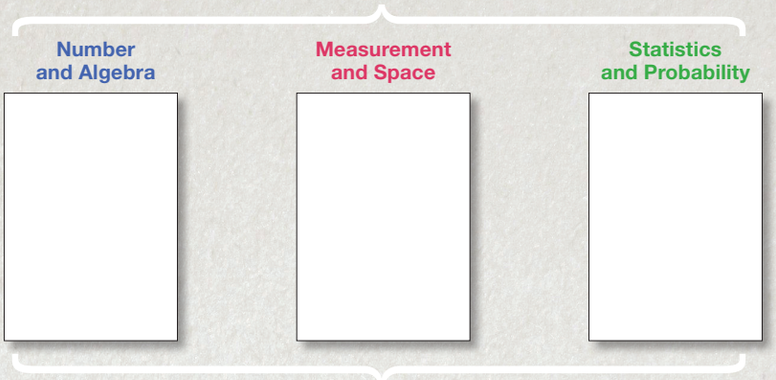
Work towards achieving the relevant outcomes by developing skills and competency in **understanding mathematical structures**, **fluency**, **reasoning** and **problem solving**.

Assessment Books

Include short post-tests with a simple marking system to assess students' skills and understanding of the concepts in the Student Books.

Student Book features

- All pages are colour coded.



- **Australian Curriculum Mathematics** content descriptions, proficiency strand references and general capabilities appear on each page.

Dictionary

- The **Dictionary** (Years 2 to 6) features clear and simple explanations of mathematical terms and language.

Diagnostic term reviews

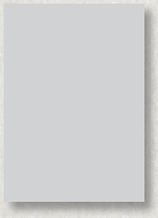
- **Diagnostic term reviews** (Years 1 to 6) assist in pinpointing students' strengths and weaknesses, allowing intervention and re-teaching opportunities where required.

Find a topic

- The **Find a topic** page allows teachers the freedom to address particular topics and student needs as appropriate, providing essential revision and consolidation opportunities.

Teacher Book and Teacher Dashboard

Provide access to a wealth of resources and support material:



- curricula and planning documents
- interactive teaching tools
- potential difficulties videos
- learning activities
- support and extension activities
- reflection
- blackline masters and investigation pages
- links to *Advanced Primary Maths* (Years 3 to 6)
- assessment tests

www.oxfordowl.com.au

Oxford Owl is the home for Oxford Primary professional resources.

Oxford OWL

MATHS PLUS

K

EARLY STAGE 1

STUDENT BOOK

NEW SOUTH WALES SYLLABUS

Harry O'Brien
Greg Purcell

OXFORD

Find a topic

NUMBER AND ALGEBRA

MEASUREMENT AND SPACE

STATISTICS AND PROBABILITY

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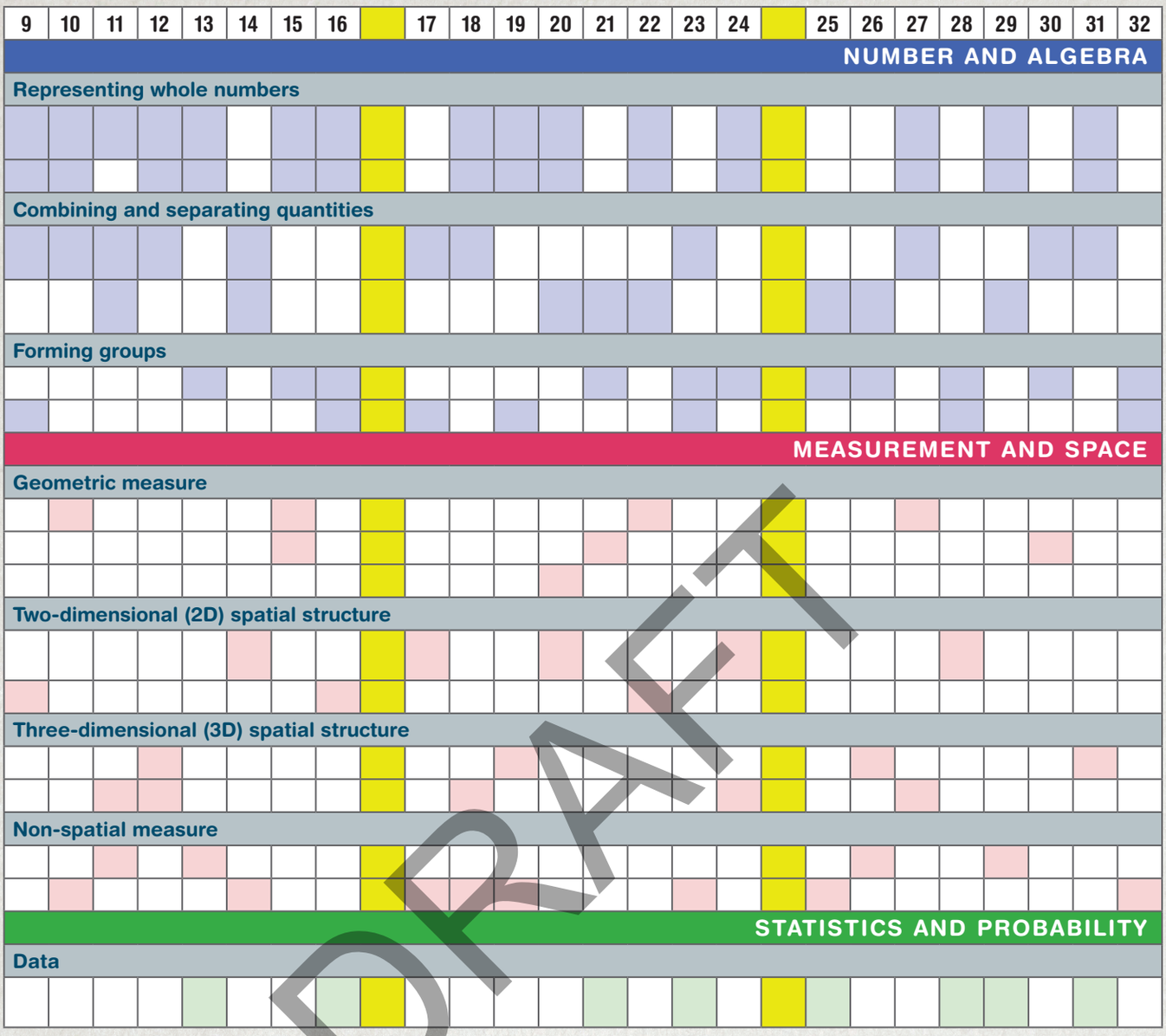
NSW Syllabus Outcomes

Units	1	2	3	4	5	6	7	8	
NUMBER AND ALGEBRA									
Representing whole numbers									
MAE-RWN-01 demonstrates an understanding of how whole numbers indicate quantity									
MAE-RWN-02 reads numerals and represents whole numbers to at least 20									
Combining and separating quantities									
MAE-CSQ-01 reasons about number relations to model addition and subtraction by combining and separating, and comparing collections									
MAE-CSQ-02 represents the relations between the parts that form the whole, with numbers up to 10									
Forming groups									
MAE-FG-01 recognises, describes and continues repeating patterns									
MAE-FG-02 forms equal groups by sharing and counting collections of objects									
MEASUREMENT AND SPACE									
Geometric measure									
MAE-GM-01 describes position and gives and follows simple directions									
MAE-GM-02 describes and compares lengths									
MAE-GM-03 identifies half the length and the halfway point									
Two-dimensional (2D) spatial structure									
MAE-2DS-01 sorts, describes, names and makes two-dimensional shapes, including triangles, circles, squares and rectangles									
MAE-2DS-02 describes and compares areas of similar shapes									
Three-dimensional (3D) spatial structure									
MAE-3DS-01 manipulates, describes and sorts familiar three-dimensional objects									
MAE-3DS-02 describes and compares volumes									
Non-spatial measure									
MAE-NSM-01 describes and compares the masses of objects									
MAE-NSM-02 sequences events and reads hour time on clocks									
STATISTICS AND PROBABILITY									
Data									
MAE-DATA-01 contributes to collecting data and interprets data displays made from objects									

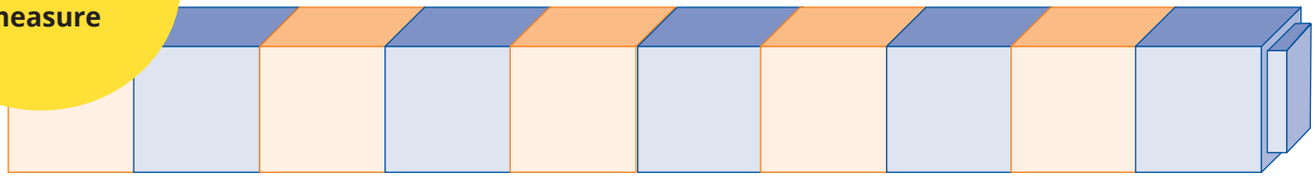


Halfway

unit 8

NEW CONTENT

Geometric measure



Whose pencil is:

➜ about half the length of the Unifix cubes? _____

➜ less than half the length? _____

Draw a line on the track to show halfway.

Which runner is more than halfway along the track? _____

Draw a line to estimate the halfway point on each pencil.

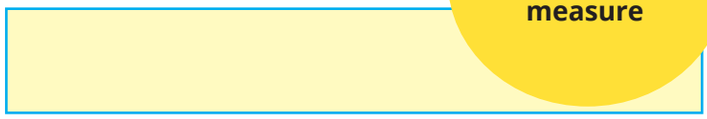
unit 20

Half a length

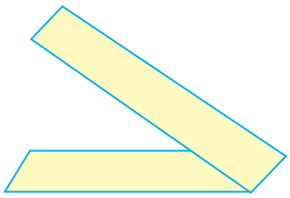
NEW CONTENT

Geometric measure

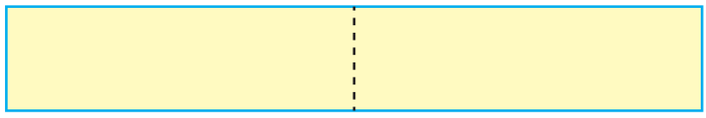
Tom started with a strip of paper.



He folded it in half.



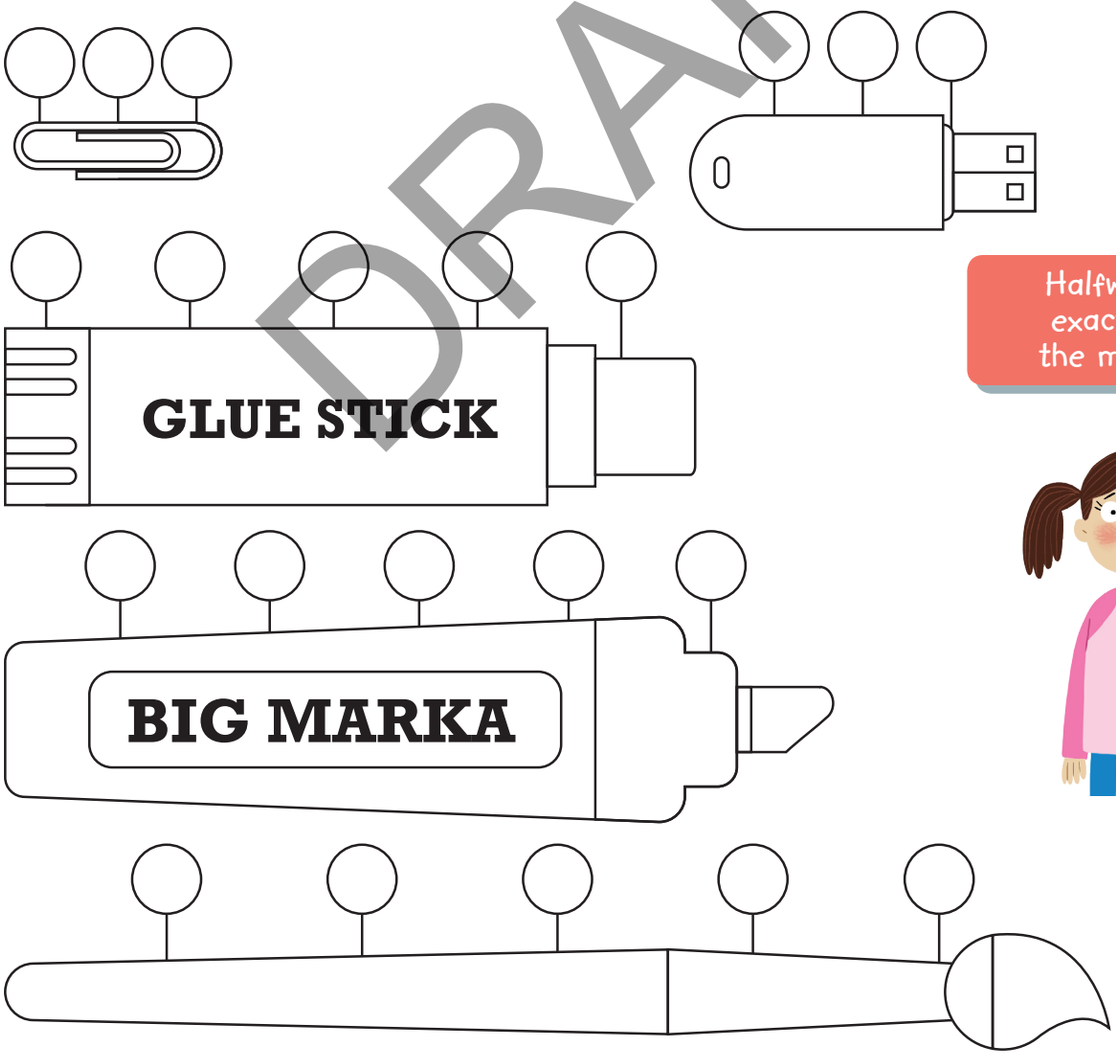
When he opened it up, it looked like this.



➜ Do the above activity yourself.

Colour the circle to show where you think halfway would be on each item.

Colour one half of each object blue and one half yellow.



NEW CONTENT

Number

unit 25

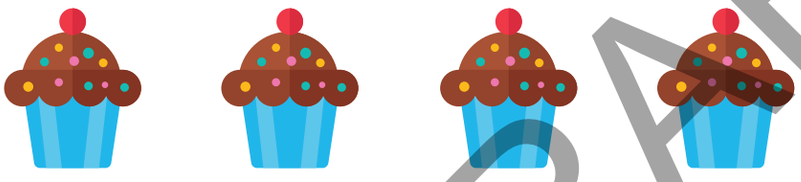
Making groups of 1, 2 or 3

circles to make groups of 1.

☐ groups of 1

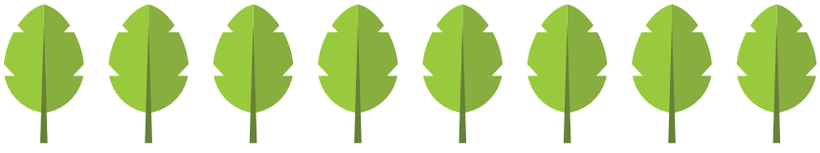
☐ groups of 1

Draw circles to make groups of 2.



☐ groups of 2

☐ groups of 2



☐ groups of 2

Draw circles to make groups of 3.

☐ groups of 3

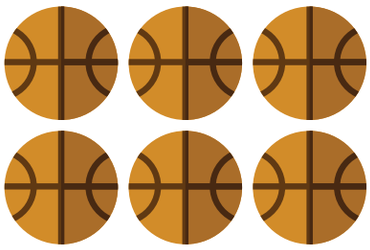
unit 32

Describing equal groups

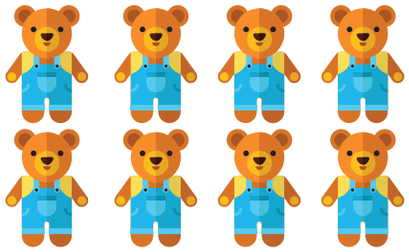
NEW CONTENT

Number

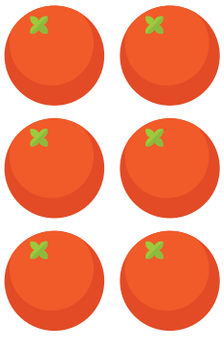
Complete each description.



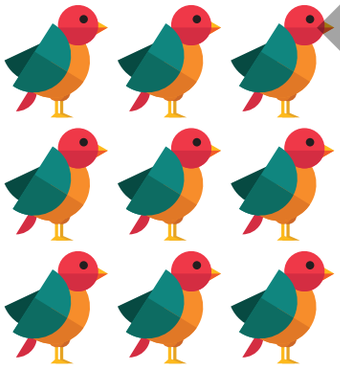
6 is equal to ☐ groups of 3



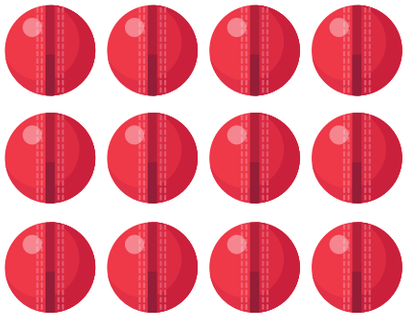
8 is equal to ☐ groups of 4



6 is equal to ☐ groups of 2



9 is equal to ☐ groups of 3



12 is equal to ☐ groups of 4

MATHS PLUS 1

STAGE 1

STUDENT BOOK

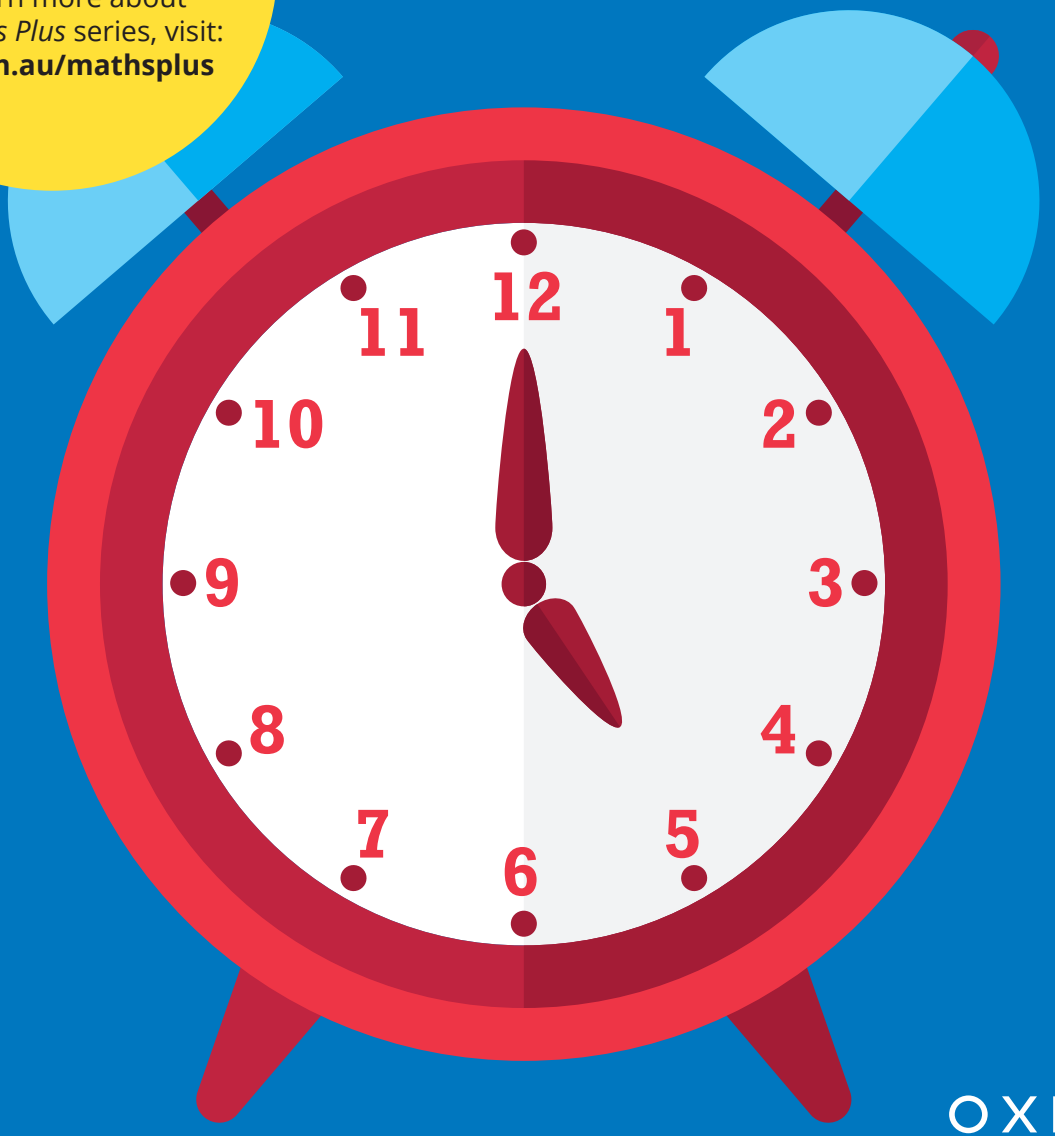
NEW SOUTH WALES SYLLABUS

SAMPLE ONLY

UNCORRECTED PAGE PROOFS

To learn more about the *Maths Plus* series, visit: **oup.com.au/mathsplus**

Harry O'Brien
Greg Purcell



OXFORD

Find a topic

NUMBER AND ALGEBRA

MEASUREMENT AND SPACE

STATISTICS AND PROBABILITY

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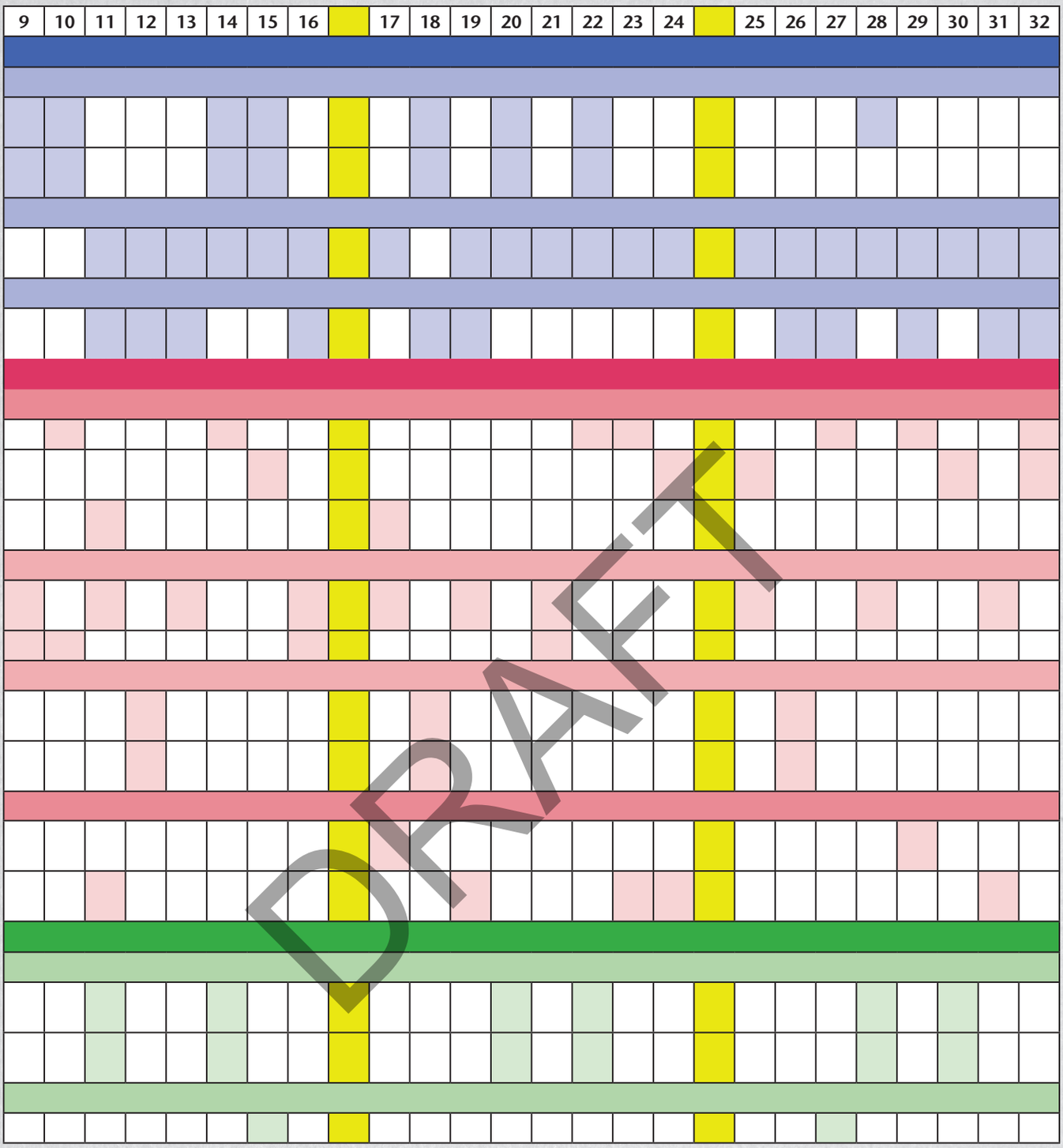
NSW Syllabus outcomes

Units	1	2	3	4	5	6	7	8	
NUMBER AND ALGEBRA									
Representing whole numbers									
MA1-RWN-01 applies an understanding of place value and the role of zero to read, write and order two- and three-digit numbers									
MA1-RWN-02 reasons about representations of whole numbers to 1000, partitioning numbers to use and record quantity values									
Combining and separating quantities									
MA1-CSQ-01 uses number bonds and the relationship between addition and subtraction to solve problems involving partitioning									
Forming groups									
MA1-FG-01 uses the structure of equal groups to solve multiplication problems, and shares or groups to solve division problems									
MEASUREMENT AND SPACE									
Geometric measure									
MA1-GM-01 represents and describes the positions of objects in familiar locations									
MA1-GM-02 measures, records, compares and estimates lengths and distances using uniform informal units, as well as metres and centimetres									
MA1-GM-03 creates and recognises halves, quarters and eighths as part measures of whole length									
Two-dimensional (2D) spatial structure									
MA1-2DS-01 recognises, describes and represents shapes including quadrilaterals and other common polygons									
MA1-2DS-02 measures and compares areas using uniform units in rows and columns									
Three-dimensional (3D) spatial structure									
MA1-3DS-01 recognises, describes and represents familiar three-dimensional objects									
MA1-3DS-02 measures, records, compares and estimates internal volumes (capacities) and volumes using uniform informal units									
Non-spatial measure									
MAE-NSM-01 measures, records, compares and estimates the masses of objects using uniform informal units									
MA1-NSM-02 describes, compares and orders durations of events, and reads half- and quarter-hour time									
STATISTICS AND PROBABILITY									
Data									
MA1-DATA-01 gathers and organises data, displays data in lists, tables and picture graphs									
MA1-DATA-02 reasons about representations of data to describe and interpret the results									
Chance									
MA1-CHAN-01 recognises and describes the element of chance in everyday events									



Counting objects by grouping into tens

NEW CONTENT

Representing whole numbers

Tom counted a group of pencils by grouping them into tens and ones.

16 pencils

3 Sam used groups of 10 pencils and some loose pencils to count each collection. How many pencils does Sam have in each collection?

a

b

c

d

e

f

g

h

i

j

k

l

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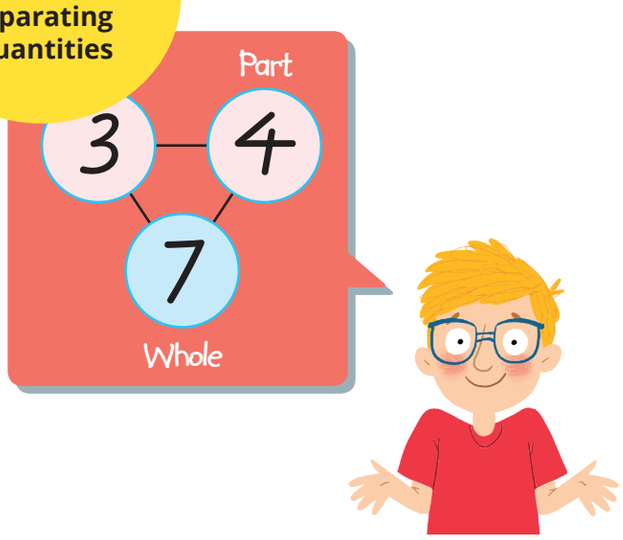
Addition number bonds/combining

unit 13

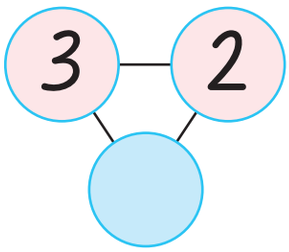
NEW CONTENT

Combining and separating quantities

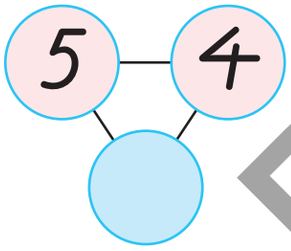


2 Complete the number bonds.

a



b



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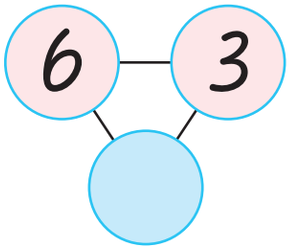

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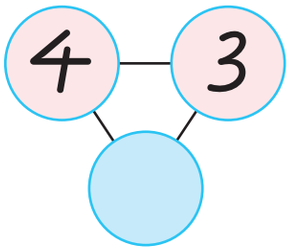

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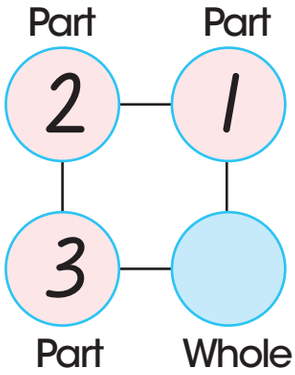

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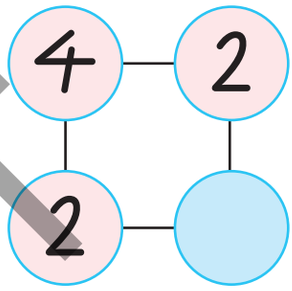

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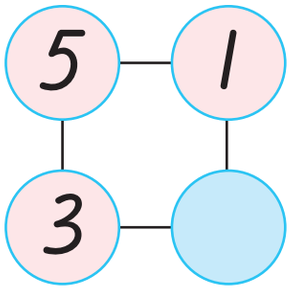

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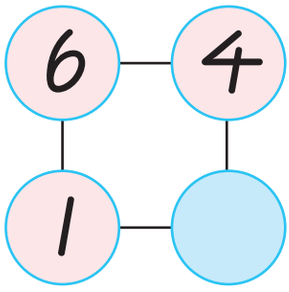

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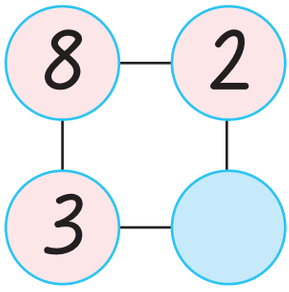
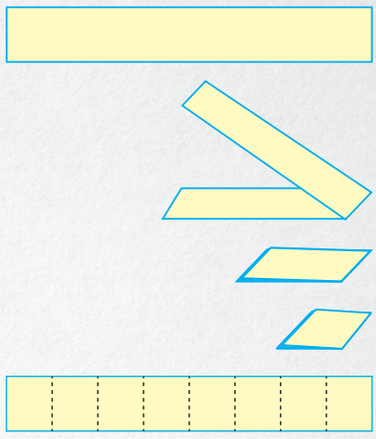


Halves, quarters and eighths

NEW CONTENT

Geometric measure

Jacob started with a strip of paper.



b He folded it in half (halves).

c He folded it in half again (quarters).

d He folded it in half again (eighths).

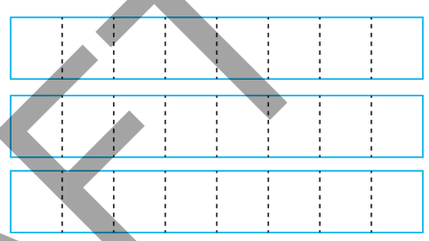
It looked like this when he unfolded it:

3 Colour the lengths of paper.

a One half of the paper.

b One quarter of the paper.

c One eighth of the paper.



4 Draw a line to match the lengths to a place on the ruler.

a One half of the ruler

b One quarter of the ruler

c One eighth of the ruler

Tom's paper strip							
Mona							
Con							
Mia							

5 Who divided their strip of paper into:

a halves _____

b eighths _____

c quarters _____

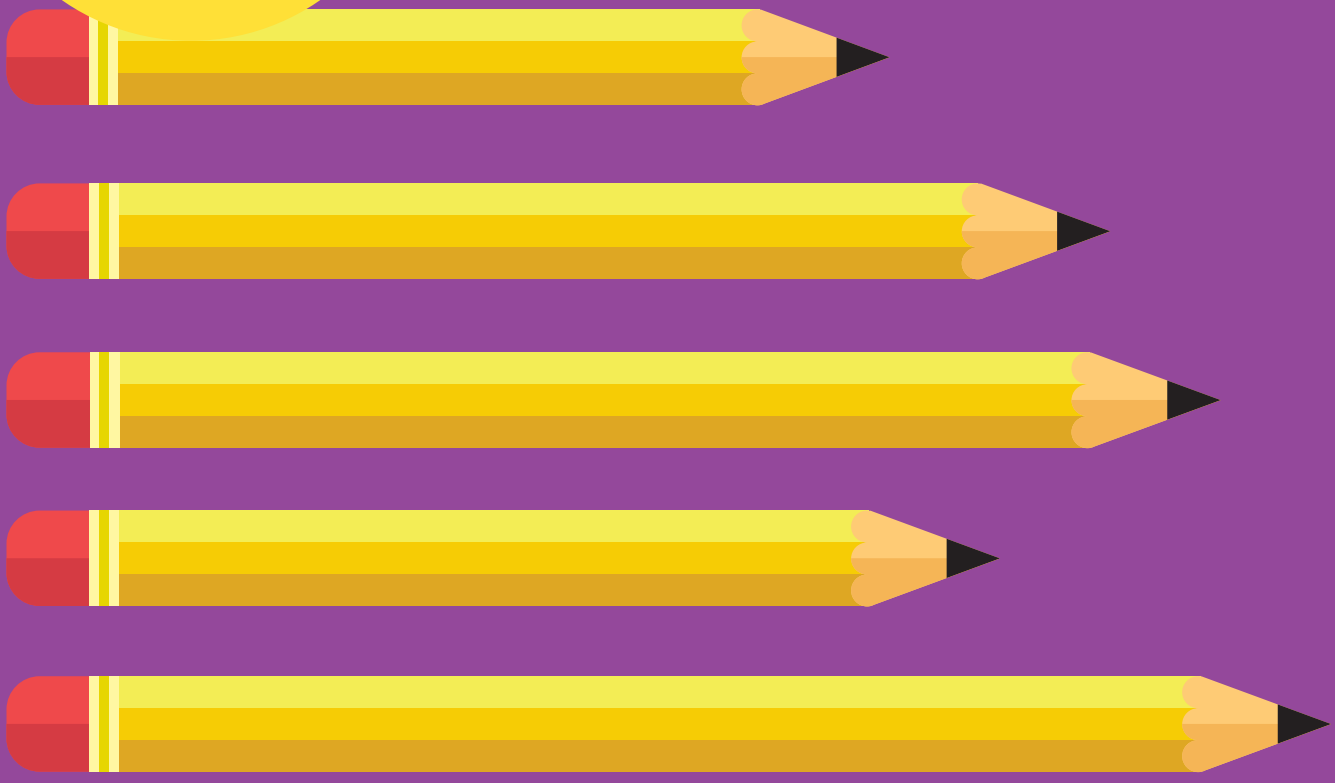
MATHS PLUS 2

STAGE 1

STUDENT BOOK

NEW SOUTH WALES SYLLABUS

Harry O'Brien
Greg Purcell



OXFORD

Find a topic

NUMBER AND ALGEBRA

MEASUREMENT AND SPACE

STATISTICS AND PROBABILITY

NSW Syllabus Outcomes

Units	1	2	3	4	5	6
NUMBER AND ALGEBRA						
Representing whole numbers						
MA1-RWN-01 applies an understanding of place value and the role of zero to read, write and order two- and three-digit numbers						
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Forming groups						
MA1-FG-01 uses the structure of equal groups to solve multiplication problems, and shares or groups to solve division problems						
MEASUREMENT AND SPACE						
Geometric measure						
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MA1-GM-02 measures, records, compares and estimates lengths and distances using uniform informal units, as well as metres and centimetres						
MA1-GM-03 creates and recognises halves, quarters and eighths as part measures of a whole length						
Two-dimensional (2D) spatial structure						
MA1-2DS_01 recognises, describes and represents shapes including quadrilaterals and other common polygons						
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MA1-NSM-01 measures, records, compares and estimates the masses of objects using uniform informal units						
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STATISTICS AND PROBABILITY						
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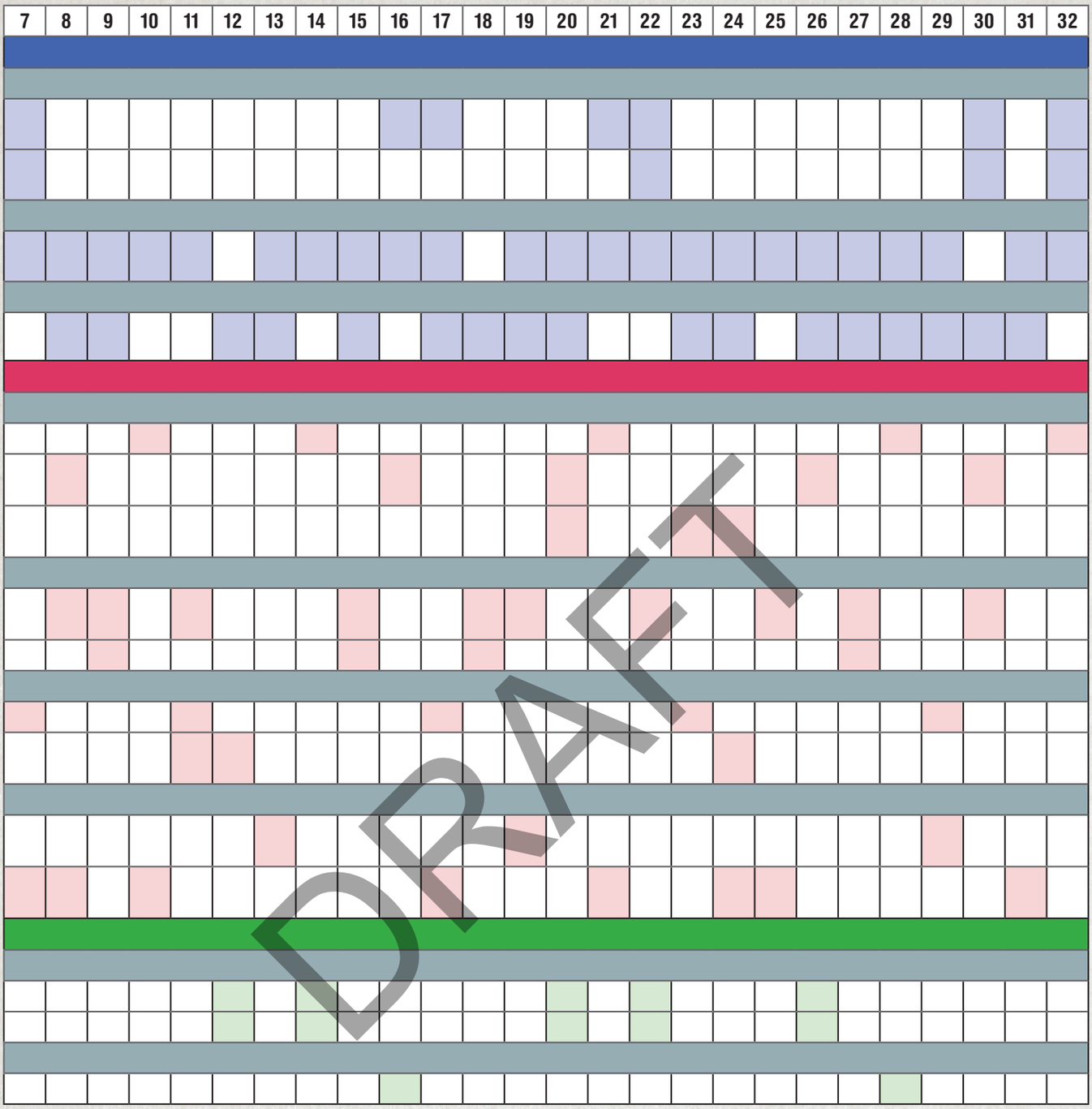
MA1-DATA-02 reasons about representations of data to describe and interpret the results						
Chance						
MA1-CHAN-01 recognises and describes the element of chance in everyday events						



Make the whole from the half

NEW CONTENT

Forming groups

picture shows half of the whole group.

Draw the other half to make the whole.

a

b

c

d

e

f

g

5 If one half equals 5, what would the whole number be? _____

6 If one half equals 10, what would the whole number be? _____

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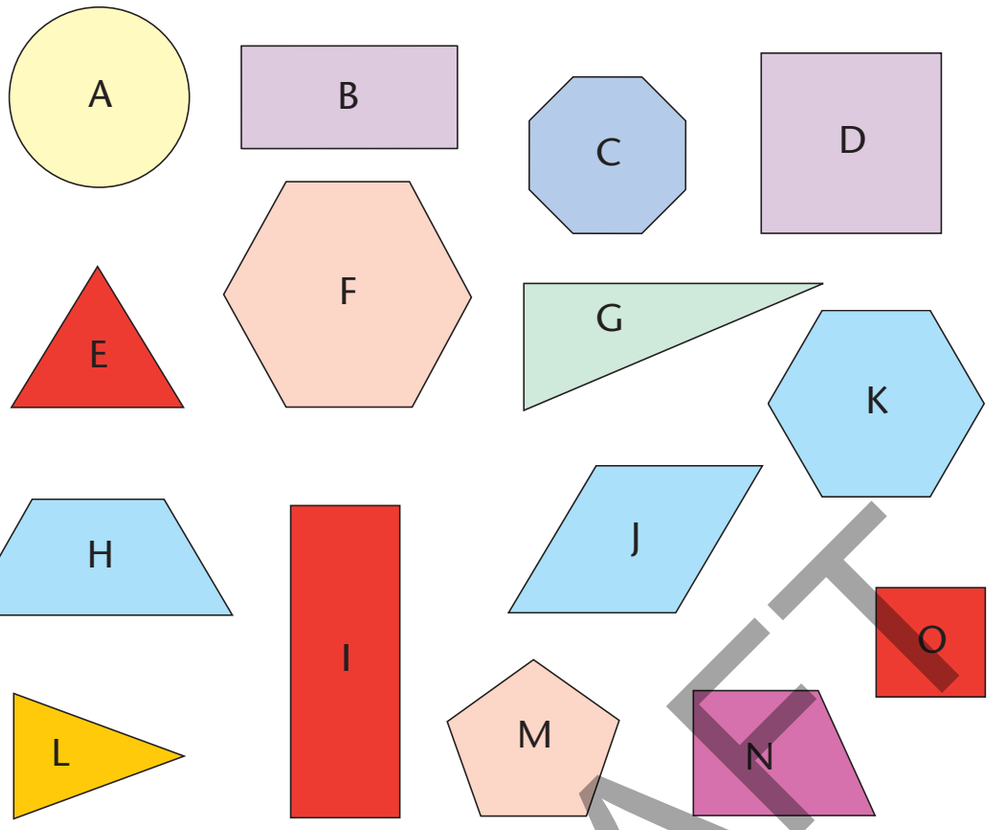
unit 9

Two-dimensional shapes/polygons

NEW CONTENT
Two-dimensional spatial structure



Polygons are two-dimensional closed shapes with straight sides.

4 Which of the polygons above are:

a triangles? _____

b squares? _____

c rectangles? _____

d pentagons? _____

e hexagons? _____

f octagons? _____

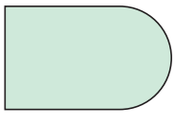
Quadrilaterals are two-dimensional shapes with 4 straight sides.

5 Is a quadrilateral also a polygon? _____

6 Is a circle a polygon? _____

7 Which shapes above are quadrilaterals? _____

8 Explain why the shape below is not a polygon.



_____

_____

Recognising units of 100

NEW CONTENT
Representing whole numbers

How many units of 100 are in each item below?

a 

☐ units of 100

b 

☐ units of 100

c 

☐ units of 100

d 
☐ units of 100

e 

☐ units of 100

f 

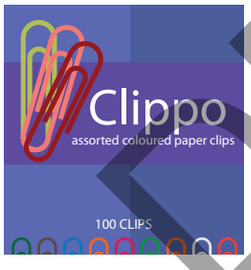
☐ units of 100

g 

☐ units of 100

h 

☐ units of 100



4 How many units of 100 are there in:

a 3 boxes of paper clips? _____

b 6 boxes of paper clips? _____

c 9 boxes of paper clips? _____

Use the signposts to answer the questions.

5 How many units of 100 is it to:

a Rocketville? _____

b Space City? _____

c Landing Pad? _____

6 Which signpost is closest to:

a 12 units of 100? _____

b 3 units of 100? _____

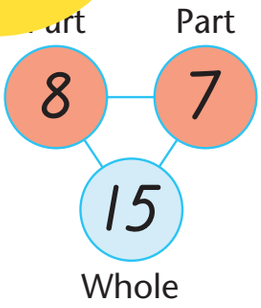
c 21 units of 100? _____

Number bonds to 20

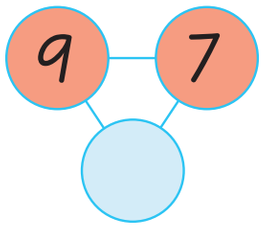
NEW CONTENT
Combining and separating quantities

lete the number bonds. The first one is done for you.

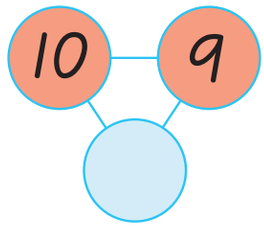
a



b



c



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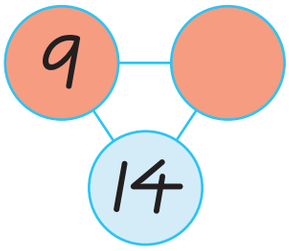

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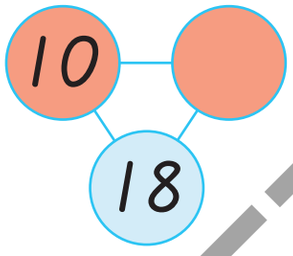

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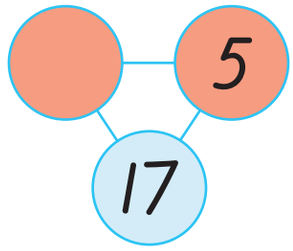
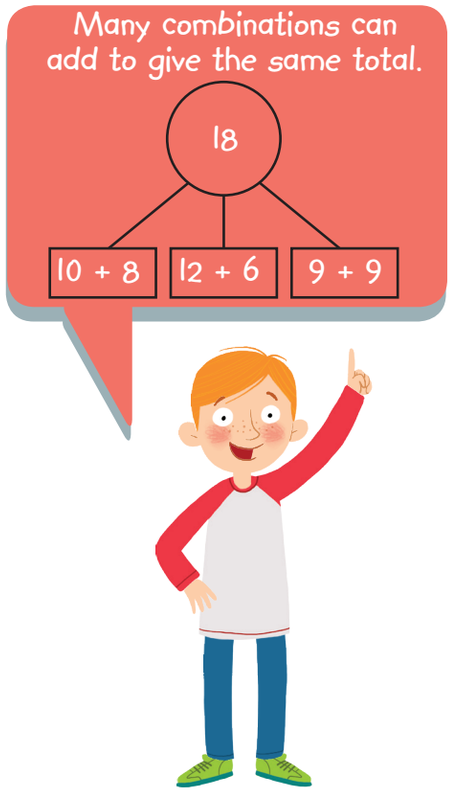


4 Use number bonds to find the whole.

a	6 + 5 =	7 + 4 =	8 + 3 =
b	8 + 4 =	9 + 3 =	7 + 5 =
c	9 + 8 =	10 + 7 =	13 + 4 =
d	10 + 3 =	11 + 2 =	12 + 1 =
e	11 + 4 =	10 + 5 =	12 + 3 =
f	13 + 3 =	12 + 4 =	10 + 6 =
g	14 + 4 =	13 + 5 =	11 + 7 =
h	12 + 7 =	11 + 8 =	13 + 6 =
i	15 + 5 =	16 + 4 =	11 + 9 =
j	10 + 9 =	19 + 0 =	11 + 8 =
k	12 + 5 =	14 + 3 =	11 + 6 =
l	10 + 10 =	18 + 2 =	9 + 11 =



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