



Parent support materials

Introduction

English

Maths




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Introduction

Welcome to Year 5 of the **Parent support materials**.

These Parent support materials include resources and practical ideas for supporting your student's learning@home.

The relevant year level Parent support materials can be printed (recommended in colour) and referring to when completing learning@home **two-week units of work**.

It contains:

- English resources
- Maths resources
- Helpful information.

The **Parent support materials** provide additional activities that can be used with the two-week units of learning provided by the Queensland Department of Education on the [learning@home](#) website. These **Parent support materials** could also be used as a standalone resource.

ENGLISH



Introduction

Welcome to the English section of the **Parent support materials**.

Reading introduction

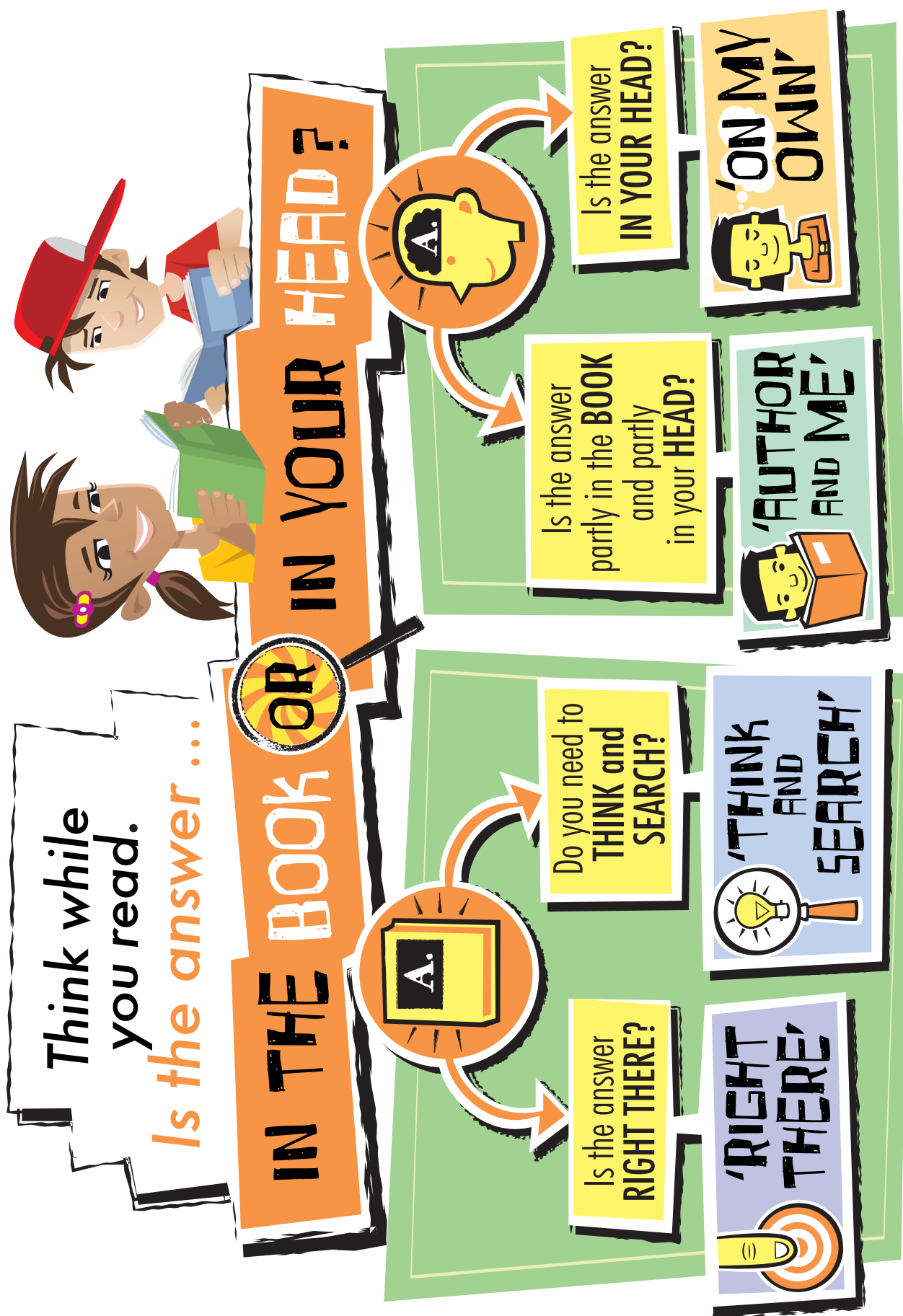
Question–answer relationship (QAR)

The question–answer relationship (QAR) strategy assists in improving reading comprehension skills by showing students the relationship between questions about the text and the answers. If students can understand the type of question, they will know where they can find information to answer questions about a text.

The strategy outlines where information to answer questions about a text can be found — *In the book or In your head*.

In the book questions (*Right there* and *Think and search*) are those whose answers are found in the book. These are literal questions and answers.

In your head questions (*Author and me* and *On my own*) are those whose answers are developed from the reader's own ideas and experiences. They are not directly found in the book. These are inferential questions and answers.



MATHS



Introduction

Welcome to the Maths section of the **Parent support materials**.

Maths box

You may like to build a **Maths box** (for example: a plastic storage container with a lid, or a cupboard). Hands on materials can be helpful for supporting students' mathematical understandings.

Suggested resources for your Maths box

Balance scales / bathroom scales

Calculators

Calendar samples

Chalk

Clocks (analog and digital) / stopwatches

Collections of materials (counters, marbles, tennis balls, rice, pipe-cleaners, pegs, ice-cream sticks, tins — full and empty)

Collection of notes and coins (play money)

Containers / lids, spoons, cups, scoops, jugs

Dice — 6-sided, 10-sided

Dominoes or domino cards

Egg timer / sand timer

Medicine cup

Modelling material and tools (clay, playdough, Plasticine, boards, cutters, plastic knives)

Packs of playing cards

Paper bags / disposable plates and cups

Protractor (180° or 360°)

Ribbons / string / shoelaces

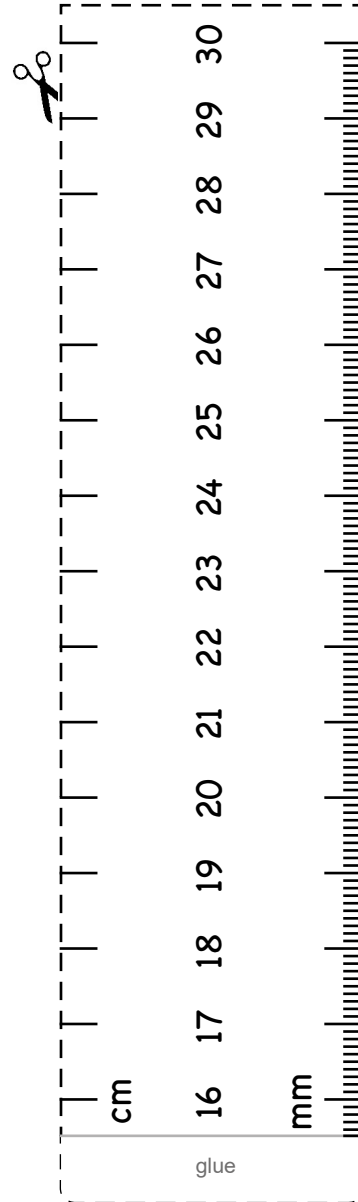
Sticky notes

Tape measure

Centimetre and metre strip

strip A	strip B	strip C	strip D	strip E
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 <i>cm</i>	20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39	40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59	60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79	80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 <i>1 metre</i>
	Glue to strip A	Glue to strip B	Glue to strip C	Glue to strip D

Millimetre strip

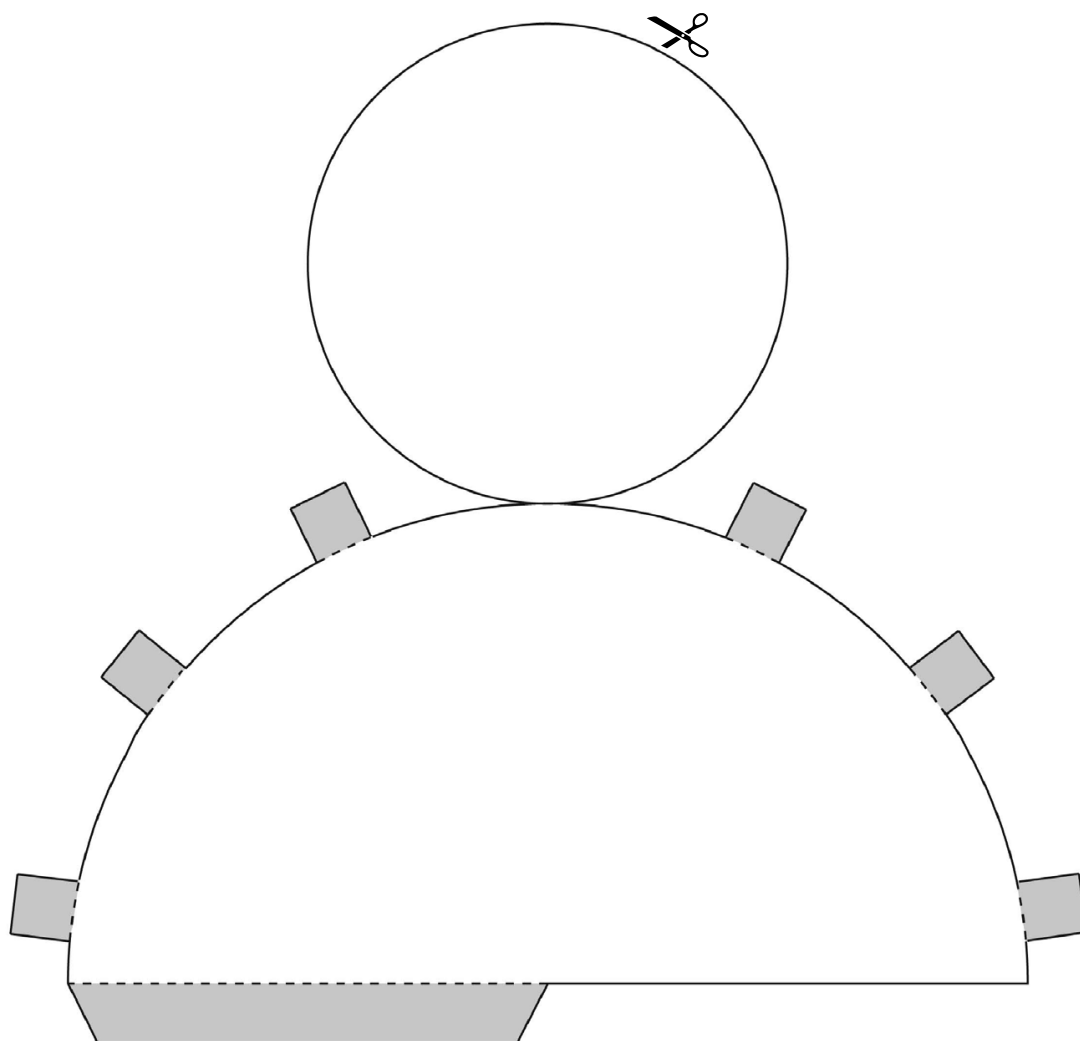


Multiplication grid

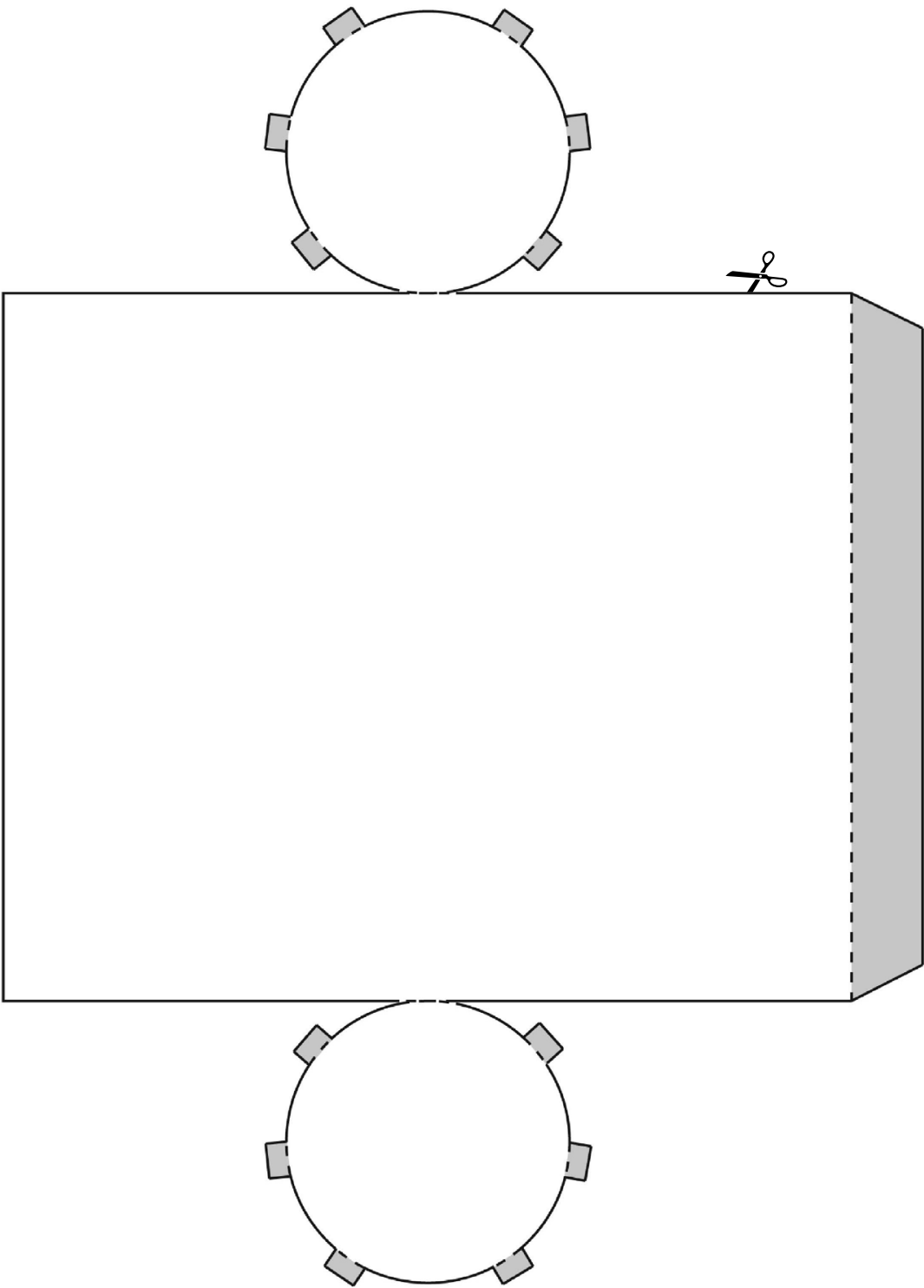
x	0	1	2	3	4	5	6	7	8	9	10
0	0	0	0	0	0	0	0	0	0	0	0
1	0	1	2	3	4	5	6	7	8	9	10
2	0	2	4	6	8	10	12	14	16	18	20
3	0	3	6	9	12	15	18	21	24	27	30
4	0	4	8	12	16	20	24	28	32	36	40
5	0	5	10	15	20	25	30	35	40	45	50
6	0	6	12	18	24	30	36	42	48	54	60
7	0	7	14	21	28	35	42	49	56	63	70
8	0	8	16	24	32	40	48	56	64	72	80
9	0	9	18	27	36	45	54	63	72	81	90
10	0	10	20	30	40	50	60	70	80	90	100

Nets of 3D objects

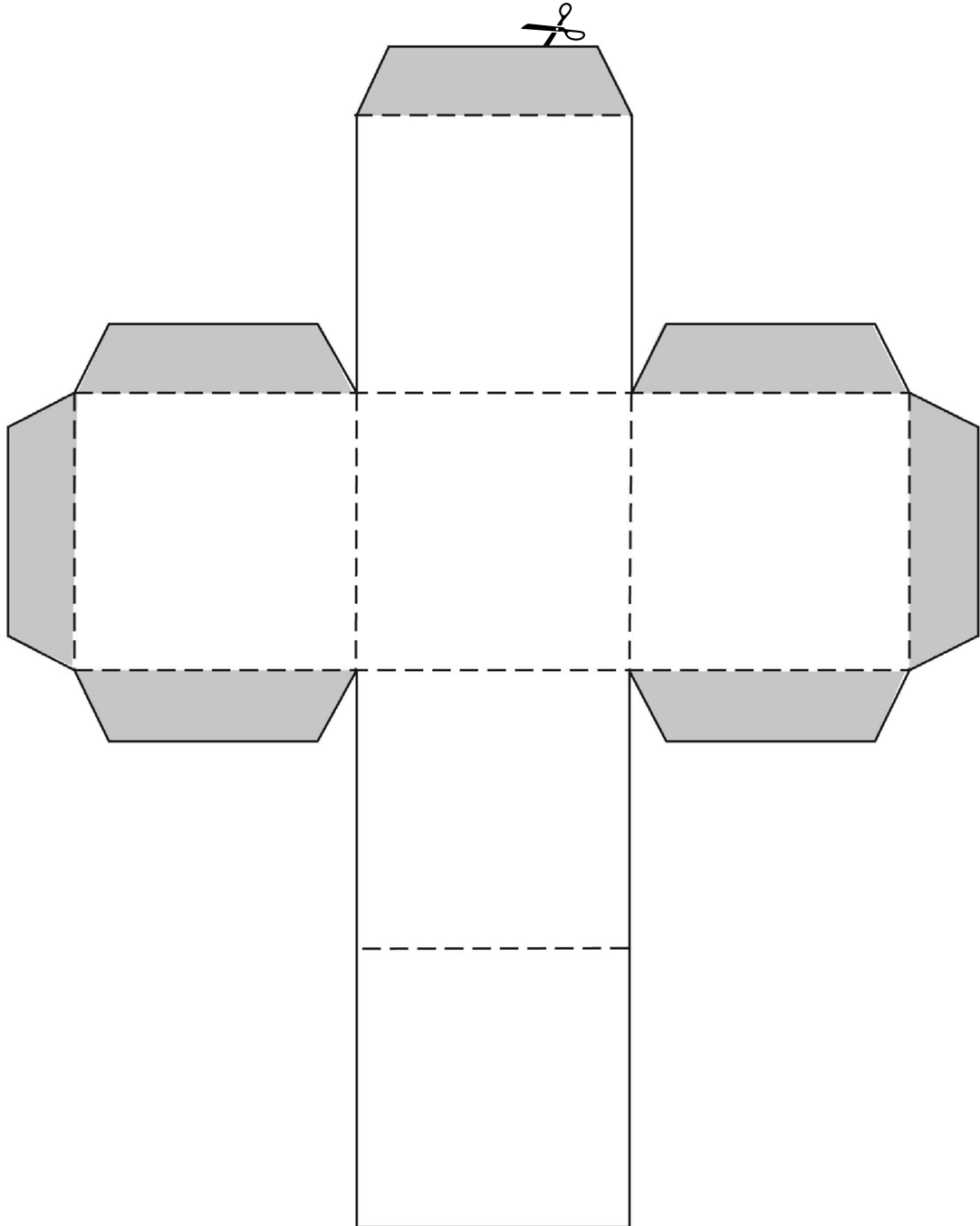
Cone



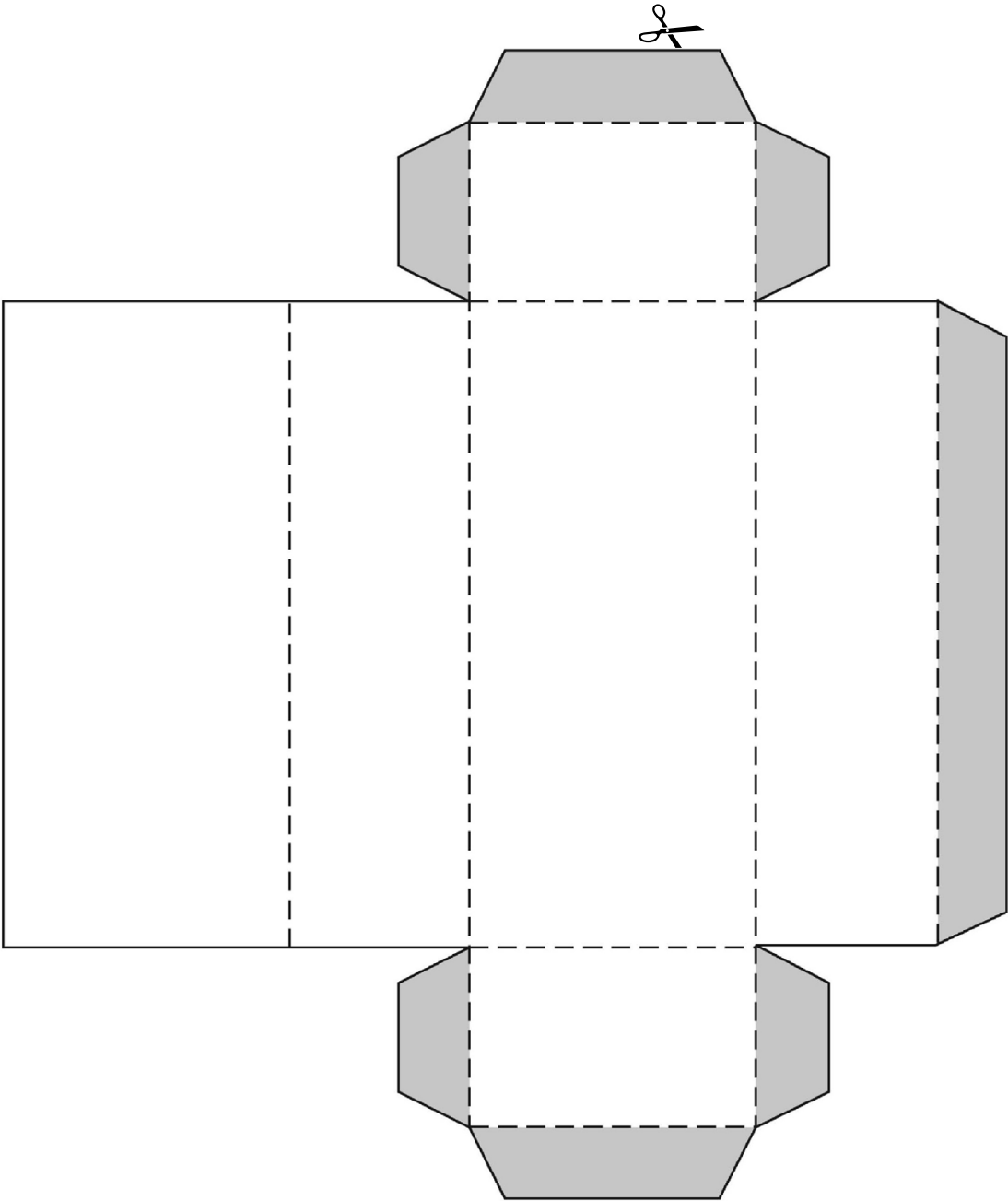
Cylinder



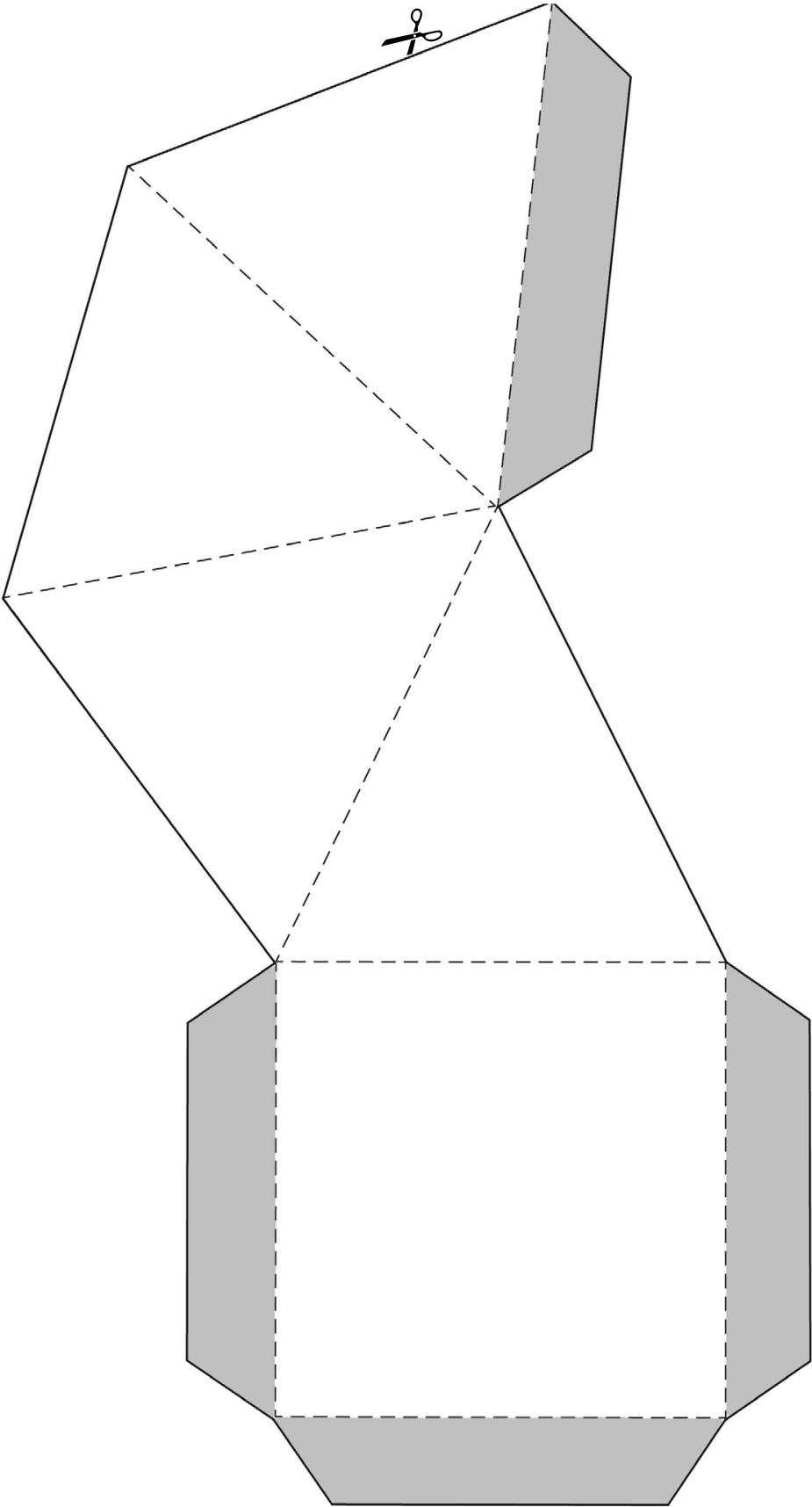
Cube



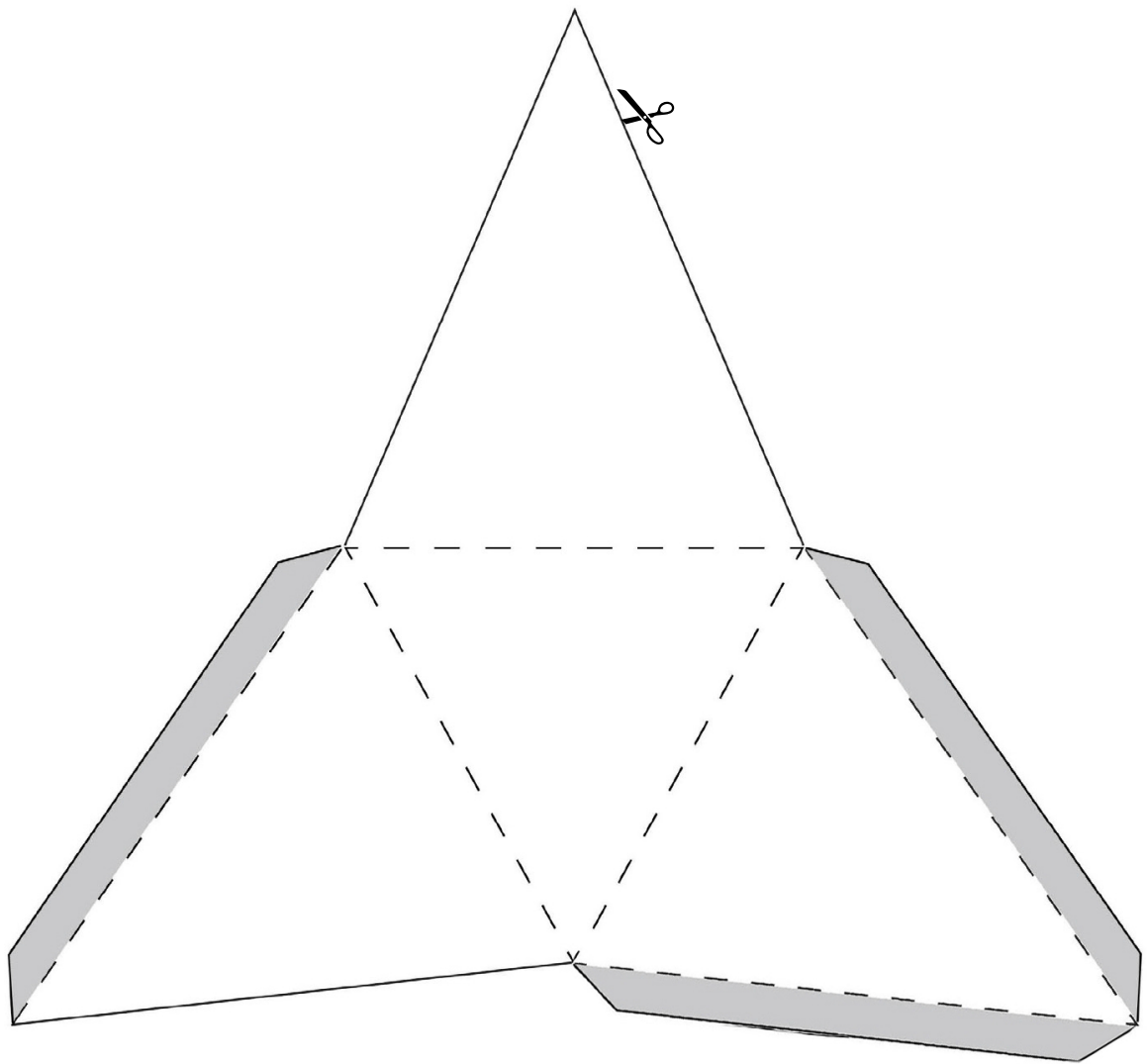
Rectangular prism



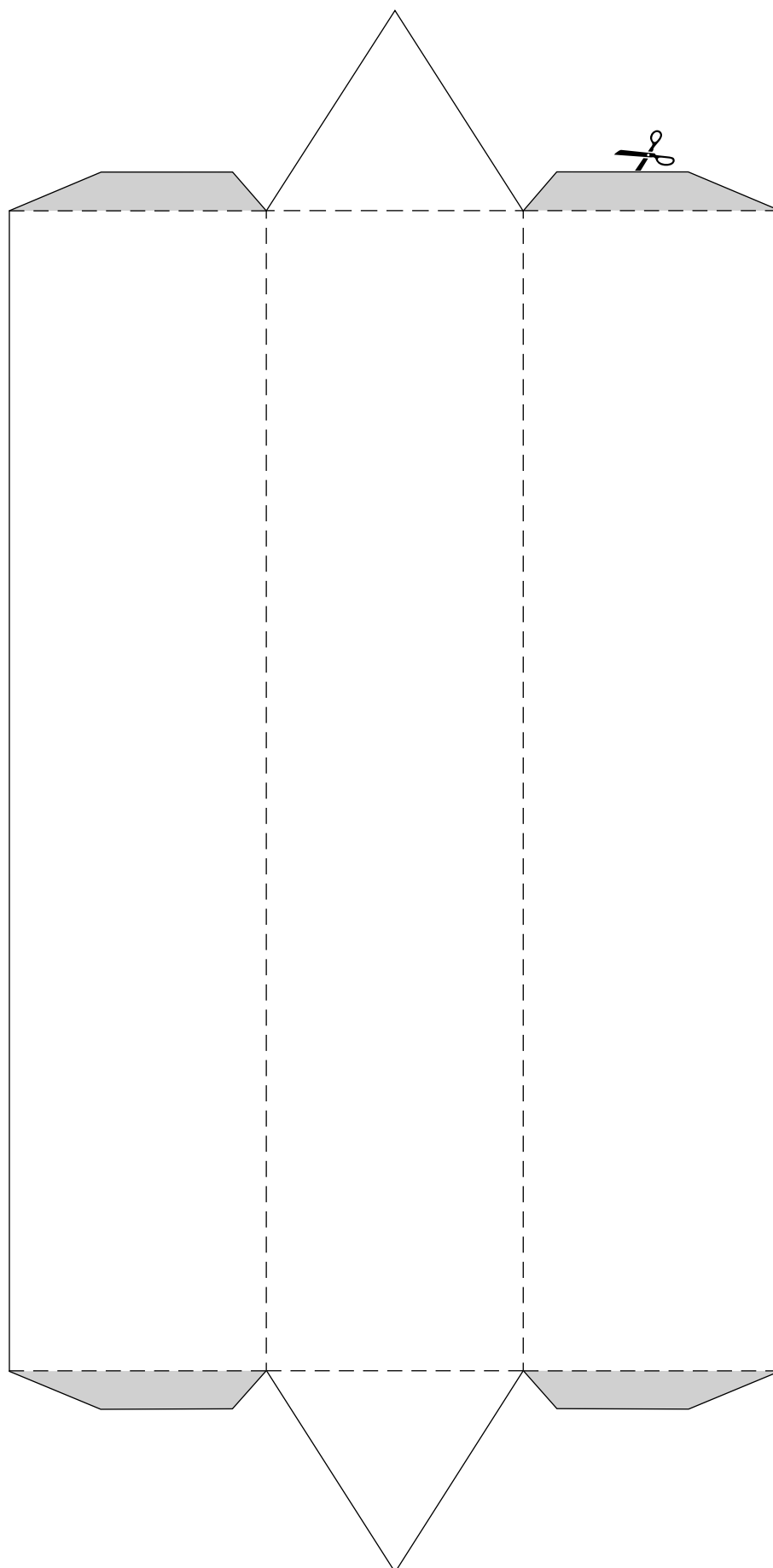
Square-based pyramid



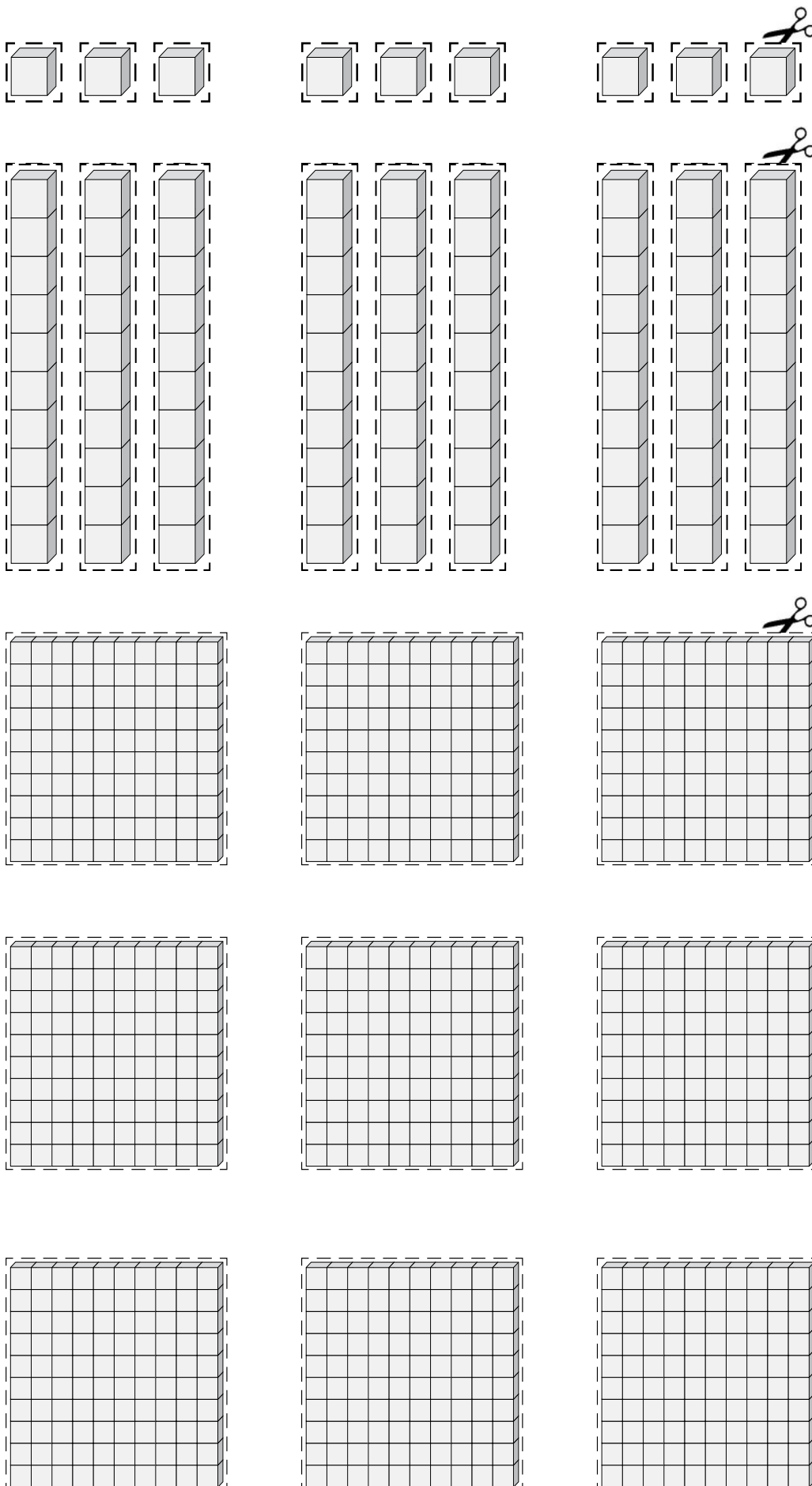
Triangular-based pyramid

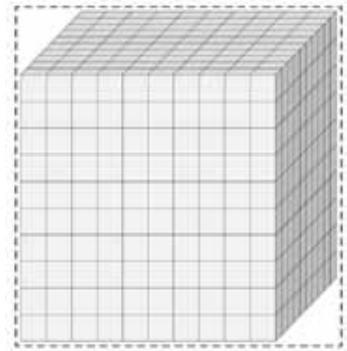
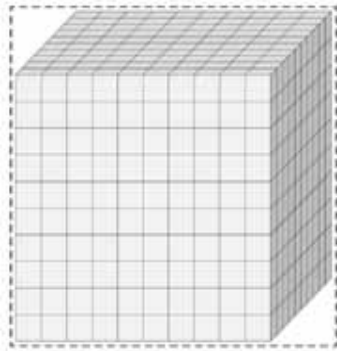
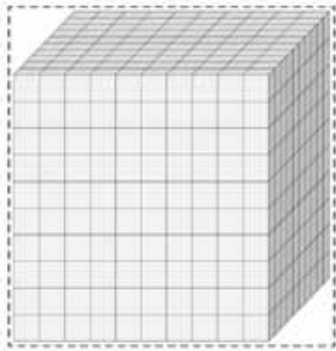
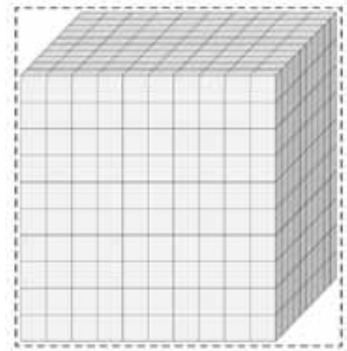
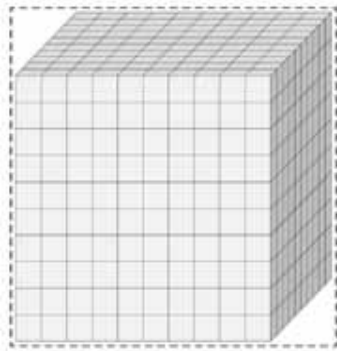
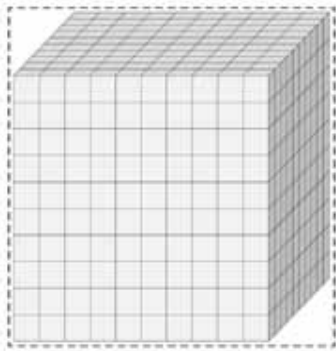
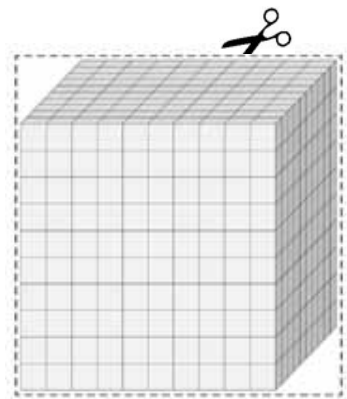
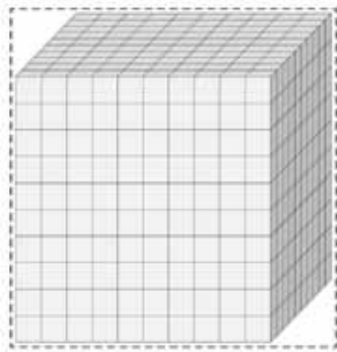
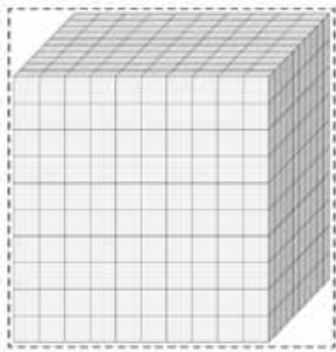


Triangular prism



Pictures of MAB

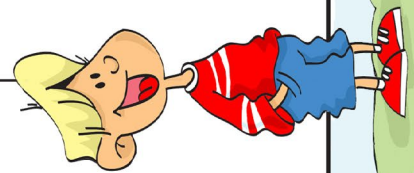




Place value chart — Millions to thousandths

Place value chart

Millions			Thousands			Ones		
Hundreds	Tens	Ones	Hundreds	Tens	Ones	Hundreds	Tens	Ones



Parts of one				
tenths	hundredths	thousandths		
		ones	tens	hundreds



Mathsercise is a group of activities designed to support students' knowledge of the number facts, number computation and content that underpins their understanding of mathematics.

The activities are organised into four sections:

- Today's number
- Number facts
- Let's calculate
- Everyday maths.

These activities may be used as regular routines in the form of five-minute revision sessions each day or they can be used to reinforce and revise concepts that students may have difficulty with. Doing the same activity multiple times will help the students work towards being flexible and confident mathematics learners.

It may be useful to keep a separate Mathsercise book for students to use with these activities.

Today's number

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

Number of the day

Have students select and record a number between 10 000 and 1 000 000, for example:

Choose some activities from the following options:

Activities

- Say the number and write it in words.
- Write the place value of each digit.
- Write the number on a number expander, close the number expander in different places and record the partitioning representations using number sentences.
- 1 000, 10 000, 100 000 more than
- 100, 1 000 less than
- 100 more than
- 10 less than
- Write the number before and after.
- Round to the nearest 100 000.
- Round to the nearest 10 000.

167 356

Partitioning whole numbers

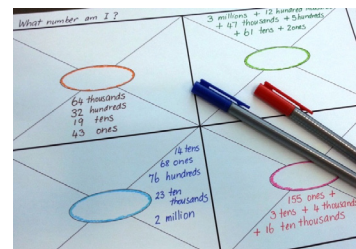
Provide examples of three-digit, four-digit, five-digit or six-digit numbers for students to name, expand into place value components or reconstruct from place value components. Use place value materials such as place value charts, arrow cards or number expanders to assist as required.

Choose one number and model non-standard partitioning in a variety of ways.

Have students reconstruct and identify numbers from non-standard partitioning by providing a partially completed **Quad thinkboard**.

Have the students:

- reconstruct the partitioned number to identify it
- write the number in digit form in the circle
- write its name in an adjoining cell
- expand it using place value partitioning in another adjoining cell
- partition it a different way.



The number activities for each cell can be varied according to student learning needs, for example:

- write the numbers that come before and after the identified number
- round the number to a given place
- write the number that is 10, 100 or 1 000 more or less than the identified number.

Number facts

To develop understanding of number facts, students need opportunities to:

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

When learning number facts students can nominate:

- facts I know well
- facts I do not know
- facts I can work out.

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

Total speed

(a game for two players)

Play the game Total speed to reinforce fluency and accuracy in recalling facts.

You will need playing cards (remove all kings, queens, jacks and jokers; the ace represents one).

What to do

- Shuffle and deal the deck of cards facedown between two players.
- Have both players simultaneously flip one card each on to the table.
- The first player to call out the correct total wins the pair of cards.
- The player who has all the cards at the end of the game is the winner.

Reinforce extended facts using materials such as tens dice, larger number dice or interactive dice. Construct a set of cards using tens, hundreds and thousands to use for extended number facts.

Card sharks

(a game for two players)

Play the game Card sharks to reinforce fluency and accuracy in recalling facts.

You will need playing cards (remove all kings, queens, jacks and jokers; the ace represents one).

What to do

- Shuffle and divide the pack evenly between both players.
- Have each player keep their pack facedown.
- Have each player take their top two cards from their respective pack and place them face up.
- Have each player add their two cards together.
- The player with the higher number wins all the cards.
- If the answer is the same, a Number war is declared.

In a Number war, each player takes three cards from their pack and places them facedown on the table. Each player then takes two more cards from their pack and places these face up on the table.

- Have each player add their own two cards together.
 - The player with the higher answer wins all the cards that have been placed on the table for that hand.
-

Hidden values

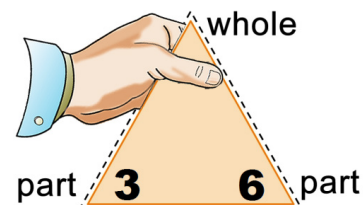
(played with a partner)

Display fact family triangles with one value hidden. Discuss strategies for calculating the missing value, for example: to divide or to multiply.

Have students work with a partner, taking turns to:

- represent a multiplication fact in a fact family triangle
- cover one value on the triangle
- challenge the partner to calculate the missing value.

Students may use materials to help work out the hidden values.



Let's calculate

In the **Let's calculate** section, students develop computational fluency. When teaching for understanding, students can begin by using materials and visual representations and then move along to symbolic representations.

The use of materials is appropriate for assisting all students in their mathematical development. The use of materials will change as students become increasingly proficient.

(a game for two players)

What to do

- Throw the dice and have both players write the number in one of their eight boxes.
- Throw the dice again and players write this number in one of the boxes.
- Once a number is written in a box, it cannot be changed.
- Continue throwing the dice until all eight boxes are filled.
- When the boxes are filled, players add together the four two-digit numbers.
- The winner is the player whose answer is closer to 120.
- The winner scores four points.

Round 1	Round 2	Round 3	Round 4
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+	+	+	+
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(a game for two or more players)

What to do

- Throw the dice and all players write the number in one of their four boxes.
- Throw the dice again and players write this number in one of the boxes.
- Once a number is written in a box it cannot be changed.
- Continue throwing the dice until all four boxes are filled.
- When the boxes are filled, players subtract the lower two-digit number from the top.
- If the lower number is greater than the top number, then zero points are scored.
- The winner is the players whose answer is the closest to 27.
- The winner scores four points.

Round 1	Round 2	Round 3	Round 4
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How did you do it?

(a one-person activity)

Give each student a sheet of paper with a different addition (or subtraction) problem, for example:



Students solve their problem mentally, using materials or visual models if required. Ask the students:

- How did you do it?
- What number did you begin with?
- What did you do first and why?
- What did you do next?
- Could you have done it differently?


Practise strategies

(a one-person activity)

Provide a selection of number problems for students to solve using mental computation strategies, for example:

$56 + 78$	$34 + 49$	$83 + 59$	$66 + 36$
$324 + 457$	$420 + 420 + 420$	$526 + 763$	$975 + 120$

Have students practise mental computation strategies of jump, split and compensate, for example:

$623 + 305$ 623 723 823 923 928 Example Jump strategy	$\begin{array}{r} \underline{623} + \underline{305} \\ 600 + 300 = 900 \\ 23 + 5 = 28 \\ \hline 928 \end{array}$ Example Split strategy	 $623 + 305$ $623 + 300 = 923$ Add the extra 5 $\underline{\quad\quad\quad}$ 928 Example: Compensate strategy
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Solving word problems

Present addition and subtraction word problems involving two-digit numbers. Include bridging for addition once this has been introduced. Do not include bridging for subtraction.

Example word problems:

- *Joe planted 35 seedlings on Saturday and 21 seedlings on Sunday. How many seedlings did he plant altogether?*
- *Hannah bought a box of 25 doughnuts. She gave 12 to her sister. How many doughnuts did Hannah have left?*

Ask students to:

- use the SCAN–THINK–DO strategy
- attempt a mental calculation first
- represent both numbers with base-10 modelling materials to confirm the sum
- record the strategy using an informal written method.

Thinkboards

(a one-person activity)

Present students with a variety of two-digit and three-digit addition problems, for example:

Demi went to the movies twice to see Tiger Queen. The first time she counted 187 people in the cinema. The second time she counted 253 people. How many people did Demi count altogether?



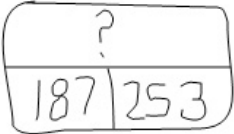
Have the students:

- draw a simple thinkboard (see the following example)
- copy the number story into one cell of the thinkboard.

Discuss the problem.

Identify the values as parts and wholes, for example: 187 as one part; 253 as the other part (the whole is unknown).

Identify the missing value, for example: the total number of people.

<i>Demi went to the movies twice. The first time she counted 187 people. The second time she counted 253 people. How many people did Demi count altogether?</i>	<p>Day 1 : 187 people watching</p>  <p>Day 2 : 253 people watching</p> 
	$187 + 253 =$

Instruct students to complete the thinkboard with different representations for the same situation, including:

- a drawing
- a part–part–whole model
- a number sentence.

Practise written methods for addition

Present an addition problem to students.

Discuss whether the problem could be solved mentally or would be better suited to the application of a written method.

Model the steps of the 'Place value' method to solve the problem.

Model the steps of the 'Left to right regrouping' method to solve the same problem.

Refer back to the initial estimate to check that the answer is reasonable.

Provide further examples for independent practice.

Practise written methods for subtraction

Present a subtraction problem to students.

Discuss whether the problem could be solved mentally or would be better suited to the application of a written method.

Model the steps of the 'Place value' method to solve the problem.

Model the steps of the 'Left to right regrouping' method to solve the same problem.

Refer back to the initial estimate to check that the answer is reasonable.

Provide further examples for independent practice.

$64836 - 17113$ $65000 - 20000 = 45000$	$265421 - 173908$ $270000 - 170000 = 100000$	$164803 - 49325$ $165000 - 50000 = 115000$	$342273 - 39848$ $340000 - 40000 = 300000$
$\begin{array}{r} 64836 \\ -17113 \\ \hline 54836 \quad (-10000) \\ 47836 \quad (-7000) \\ 47736 \quad (-100) \\ 47726 \quad (-10) \\ 47723 \quad (-3) \end{array}$	$\begin{array}{r} 265421 \\ -173908 \\ \hline 165421 \quad (-100000) \\ 95421 \quad (-70000) \\ 92421 \quad (-3000) \\ 91521 \quad (-900) \\ 91513 \quad (-8) \end{array}$	$\begin{array}{r} 164803 \\ -49325 \\ \hline 124803 \quad (-40000) \\ 115803 \quad (-9000) \\ 115503 \quad (-300) \\ 115483 \quad (-20) \\ 115478 \quad (-5) \end{array}$	$\begin{array}{r} 342273 \\ -39848 \\ \hline 312273 \quad (-30000) \\ 303273 \quad (-9000) \\ 302473 \quad (-800) \\ 302433 \quad (-40) \\ 302425 \quad (-8) \end{array}$
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Multiplication game

(a game for two players)

You will need two dice and a scoresheet.

What to do

- Player 1 throws the two dice and multiplies the numbers together.
- Player 1 records the score on the scoresheet.
- Player 2 has his/her turn.
- The winner is the first player to reach a score of 100.

Name _____		Name _____	
Dice numbers	Score	Dice numbers	Score

Division game

(a game for two players)

You will need two different-coloured dice, a different coloured set of counters for each player and a playing board.

7	4	2	3	6
6	2	4	7	3
8	5	7	4	9
3	5	2	3	4
8	6	2	6	5

What to do

- Coloured dice 1 represents the 'tens' digit.
- Coloured dice 2 represents the 'ones' digit.
- The first player throws the two dice and makes a two-digit number.
- The first player places a counter on any number on the board that is a factor of the number made from the dice.
- If it is impossible to find a factor, then no counter is placed on the board.
- The second player has a turn.
- The winner is the first player to make a straight line with four of his or her counters.

Everyday maths

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

Time

Have the students use a calendar (for the current year) to:

- identify today, tomorrow, yesterday, day after, day before, next week, last week
 - order months of the year
 - identify which season we are in
 - identify day, date and month
 - find how many days are in June
 - find how many days until ... (pick a date, for example: a birthday or holiday).
-

Duration of time

Have the students compare duration of time, for example:

- activities that take a month, a week, a day, an hour
 - use a clock (analog and digital)
 - ask about o'clock, half-past, quarter-to/past times
 - how long does it take to ...
 - convert to 24-hour
 - convert to digital/analog.
-

Length

Have the students use formal/informal units to measure length, for example:

- how long is ...
 - how wide is ...
 - about how tall is ...
-

Capacity

Have the students measure capacity using informal/formal units to determine:

- how many CDs fill the bag
 - how much water fills the jar.
-

Location

Have the students follow directions by moving:

- forwards/backwards/sideways
 - left/right
 - clockwise/anticlockwise
 - half turn/quarter turn.
-

Area

Have the students use formal/informal units to measure area:

- How many envelopes cover the desk?
-

Mass

Have the students use formal/informal units to measure mass:

- how heavy is ...
 - about how heavy is ...
-

Money

Have the students use collections of money to:

- count collections of coins (5c, 10c, \$1, \$2)
 - count how much change
 - count how much these items will cost
 - write a budget.
-