

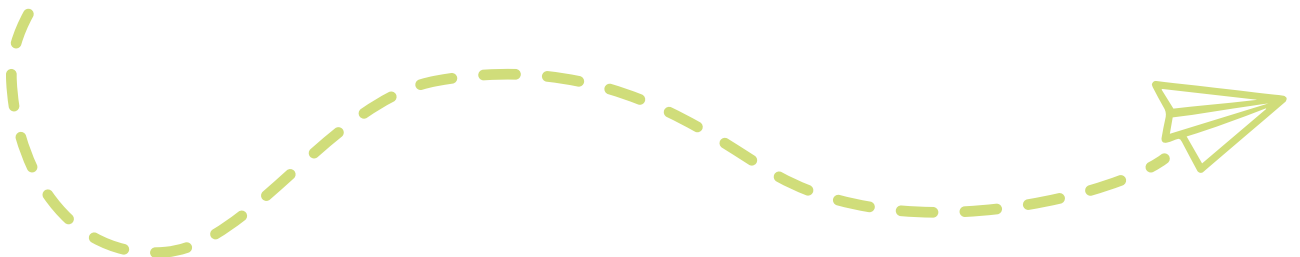


Parent support materials

Introduction

English

Maths






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Introduction

Welcome to Year 6 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

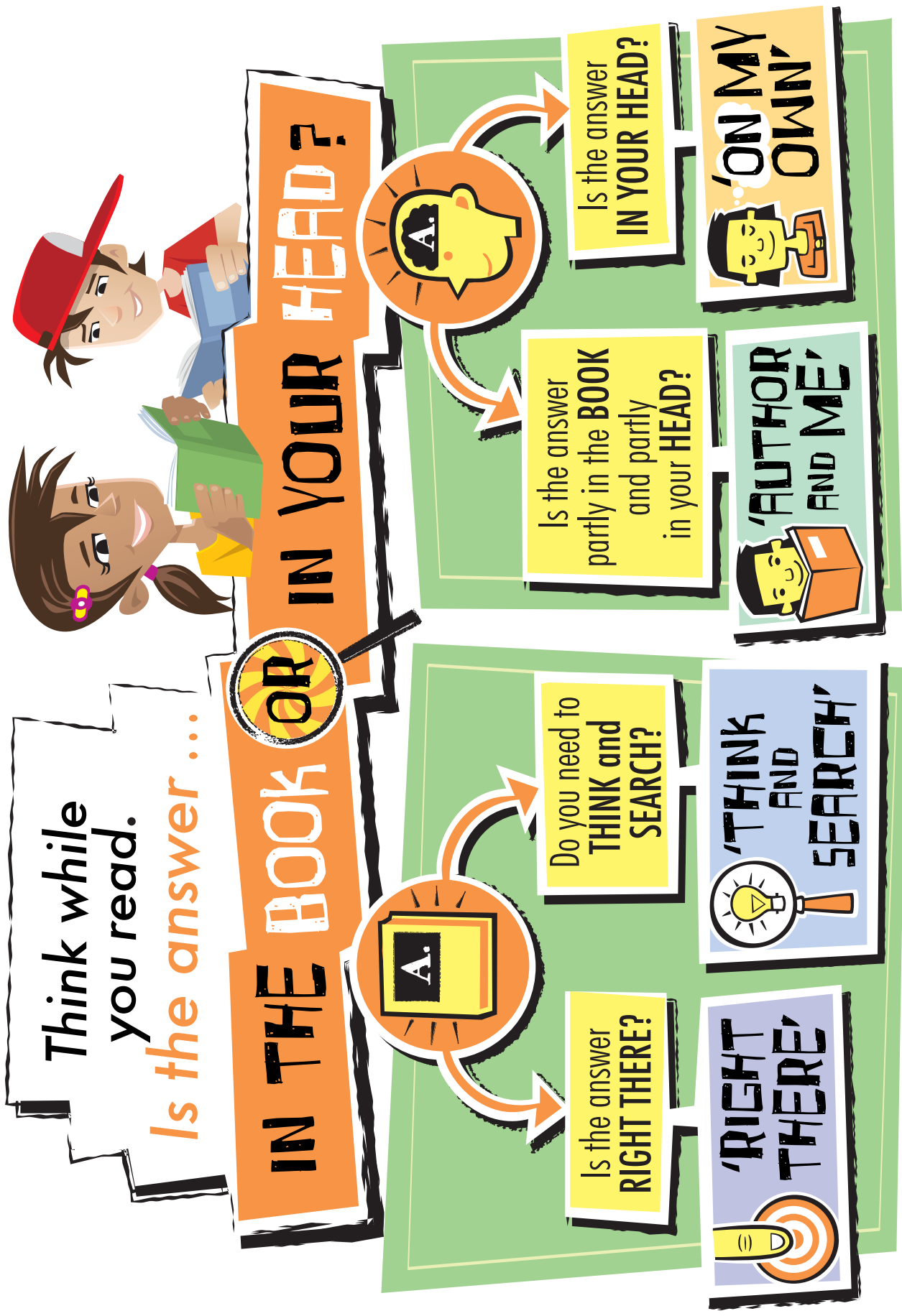
Question–answer relationship (QAR)

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 will need 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

Calculators

Calendar samples

Chalk

Clocks (analog and digital)/stopwatches

Collections of materials (blocks, counters, bundling sticks, tennis balls, sand, rice, ice-cream sticks, split pins)

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

Linking cubes

Maps — variety of different local, national and international

Medicine cup

Models of 3D objects (cone, cylinder, cube, rectangular and triangular prism, square-based and triangular-based pyramids — make using nets supplied if necessary)

Waterproof modelling clay

Packs of playing cards

Paper/cardboard/graph paper/coloured paper

Protractor (180°)

Ribbons/string/laces

Sticky notes

Tape measure

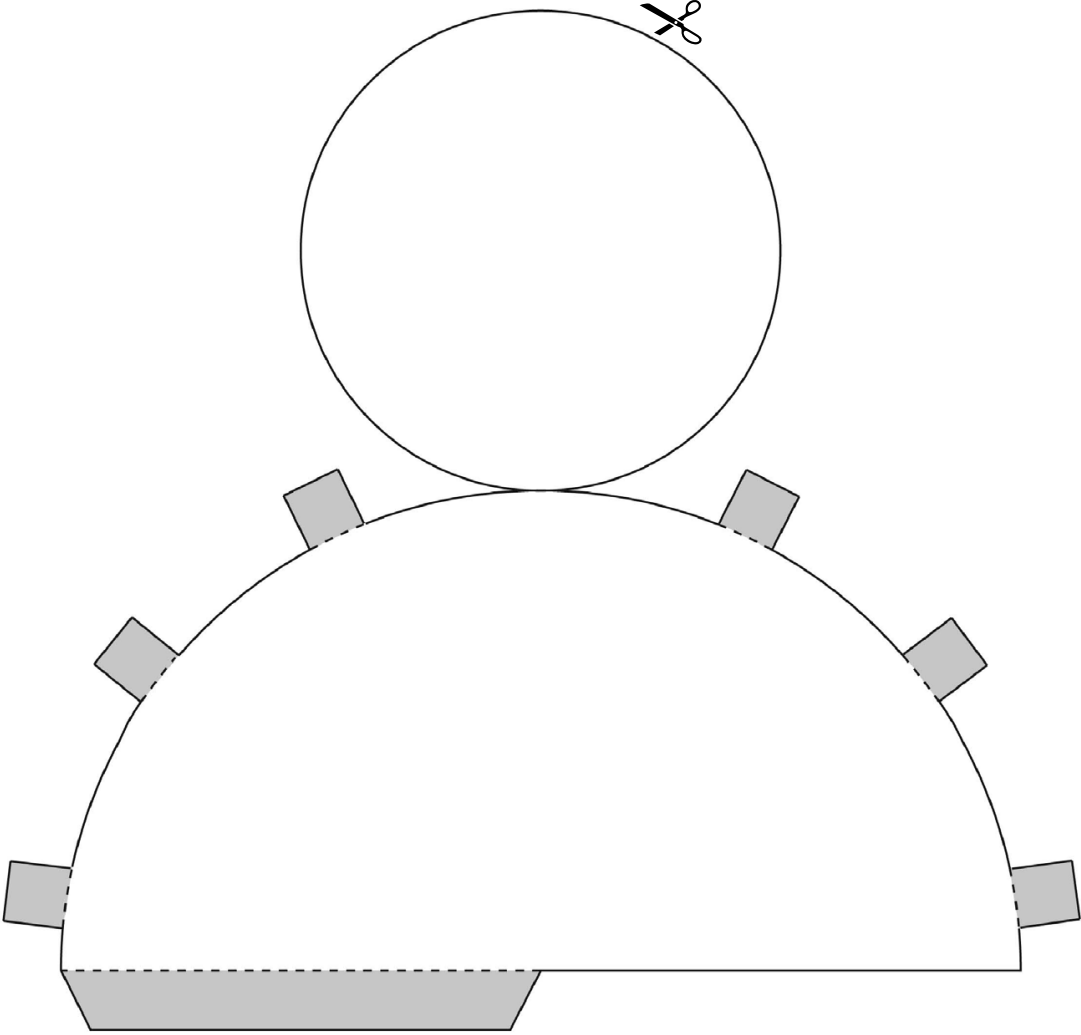
Thermometer

Multiplication grid

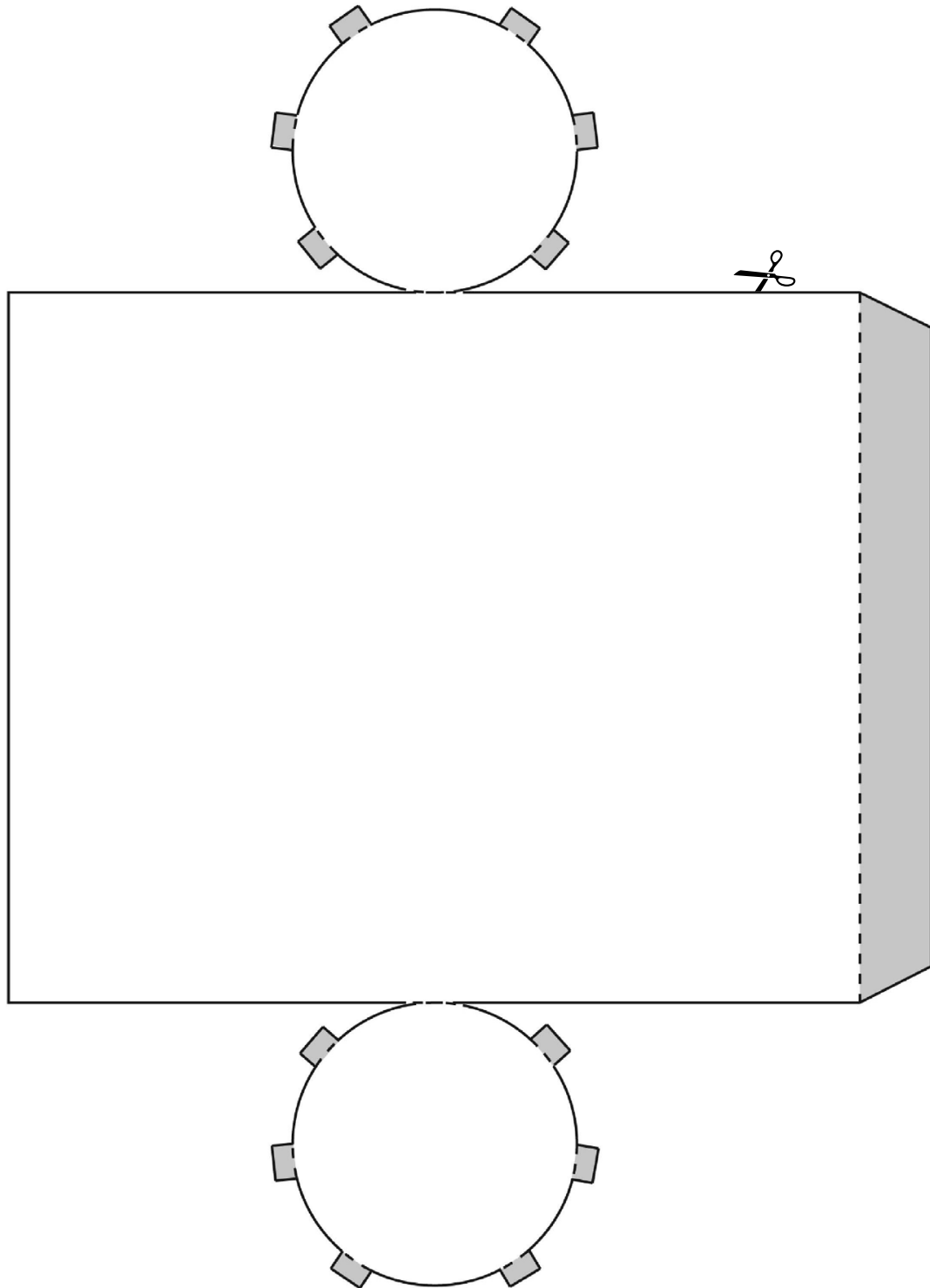
x	0	1	2	3	4	5	6	7	8	9	10
0	0	0	0	0	0	0	0	0	0	0	0
1	0	1	2	3	4	5	6	7	8	9	10
2	0	2	4	6	8	10	12	14	16	18	20
3	0	3	6	9	12	15	18	21	24	27	30
4	0	4	8	12	16	20	24	28	32	36	40
5	0	5	10	15	20	25	30	35	40	45	50
6	0	6	12	18	24	30	36	42	48	54	60
7	0	7	14	21	28	35	42	49	56	63	70
8	0	8	16	24	32	40	48	56	64	72	80
9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

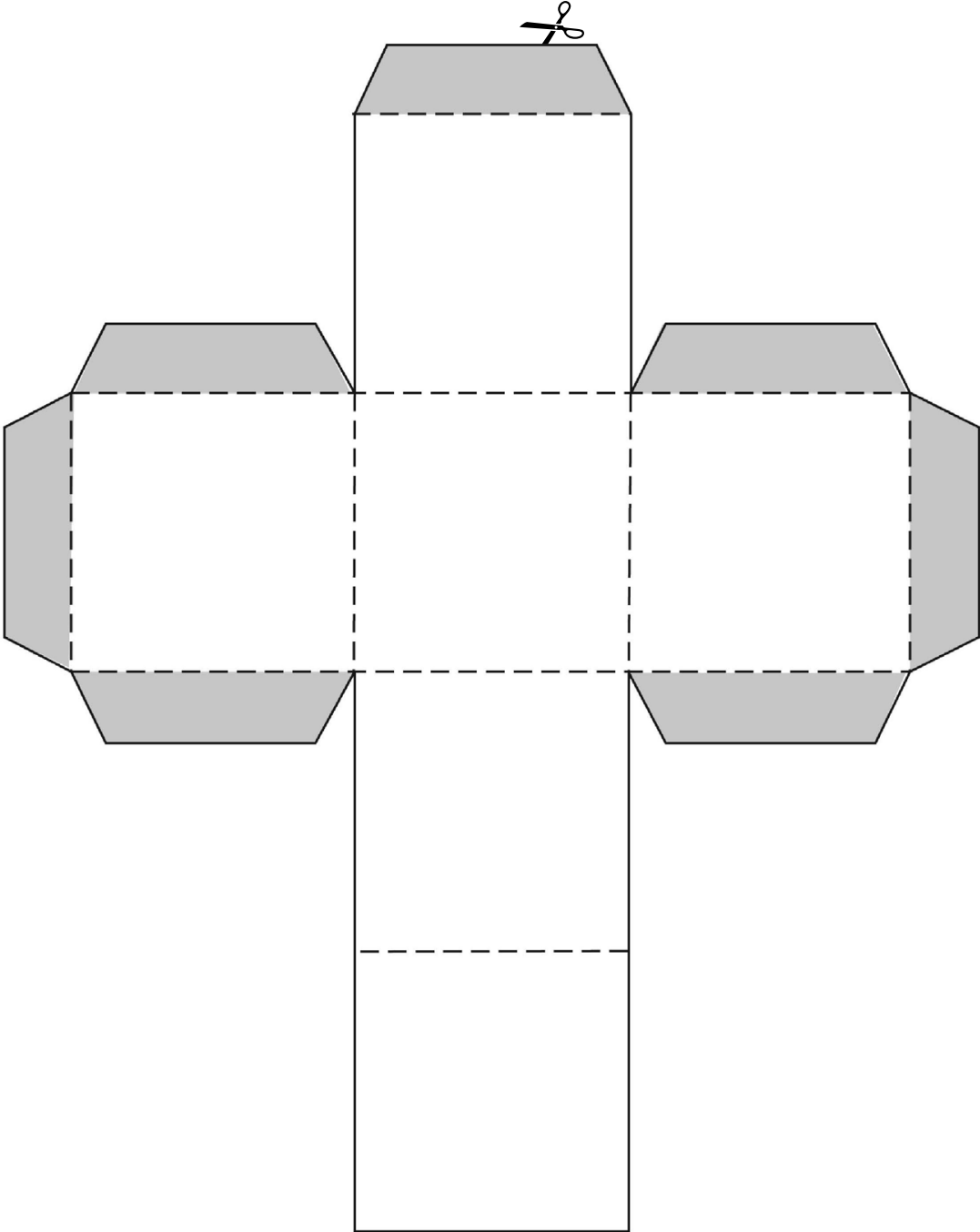
Cone



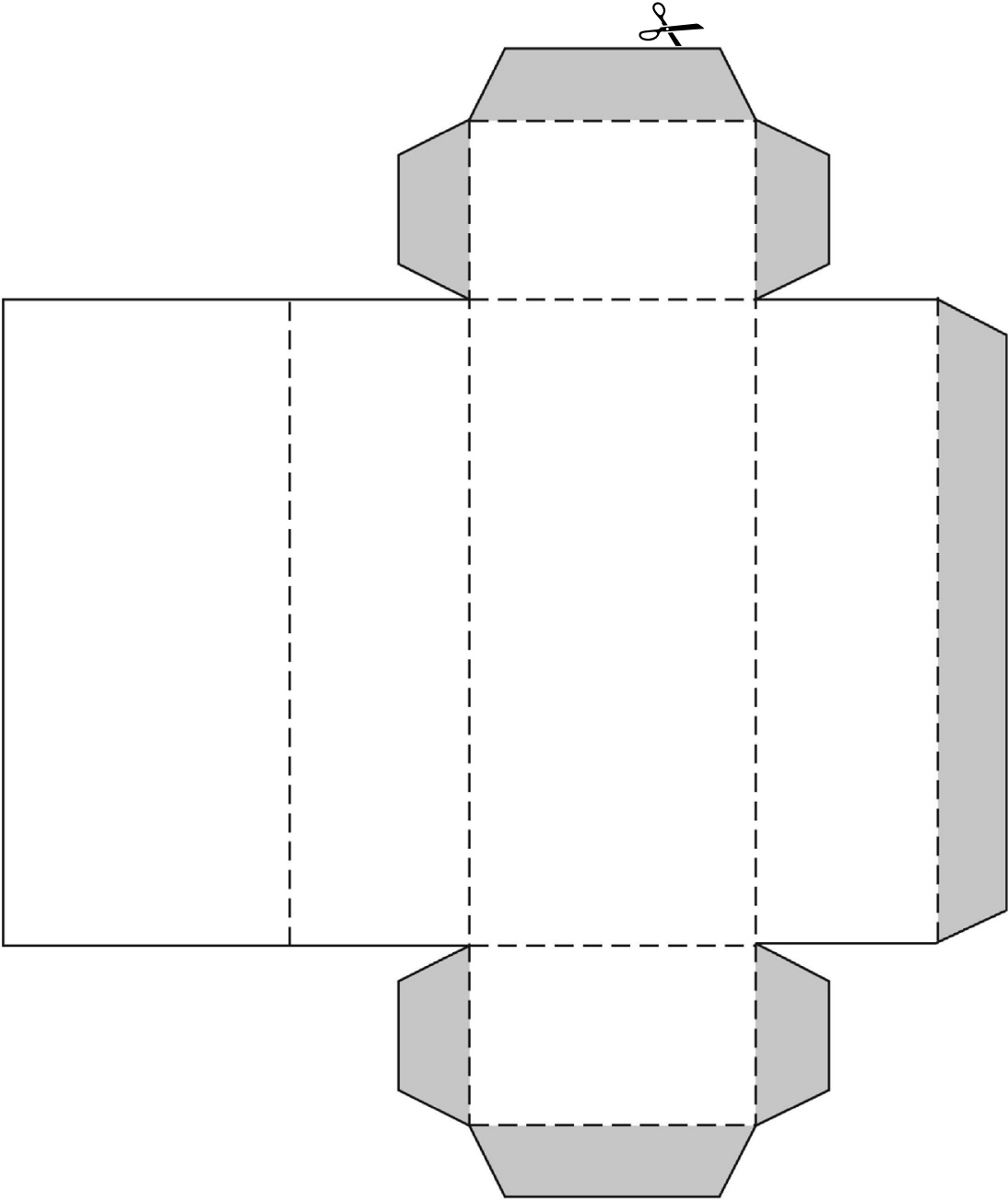
Cylinder



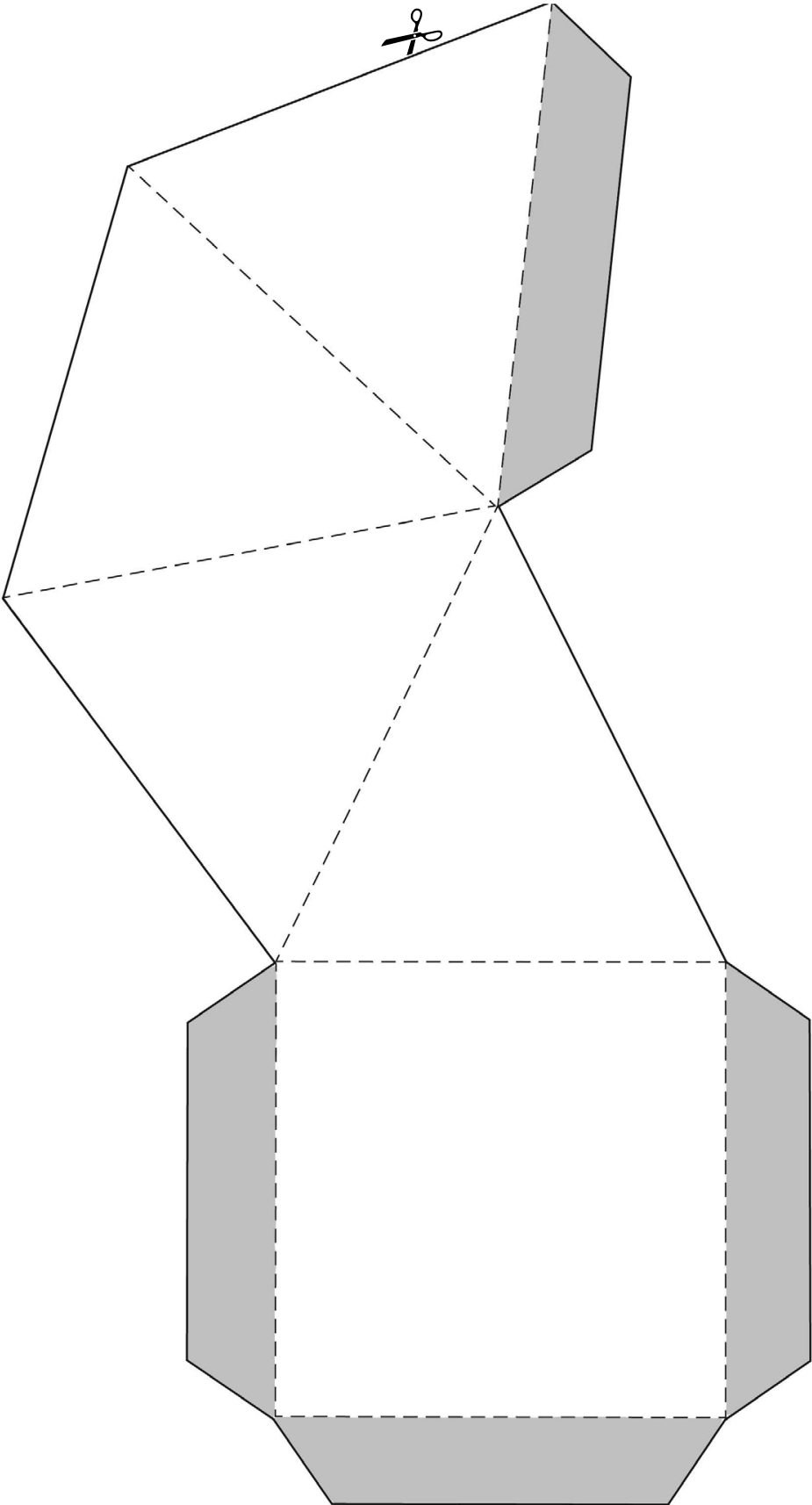
Cube



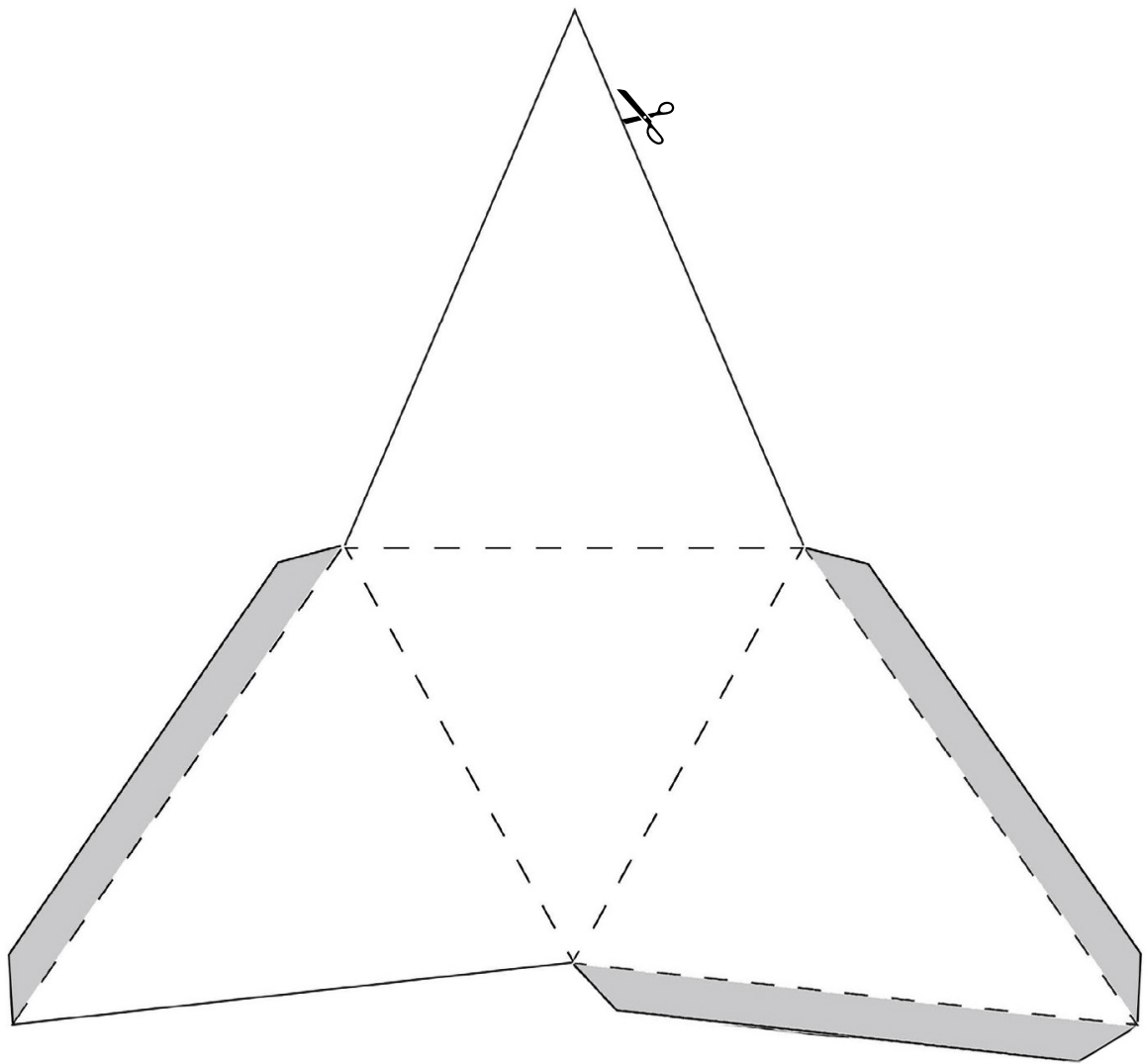
Rectangular prism



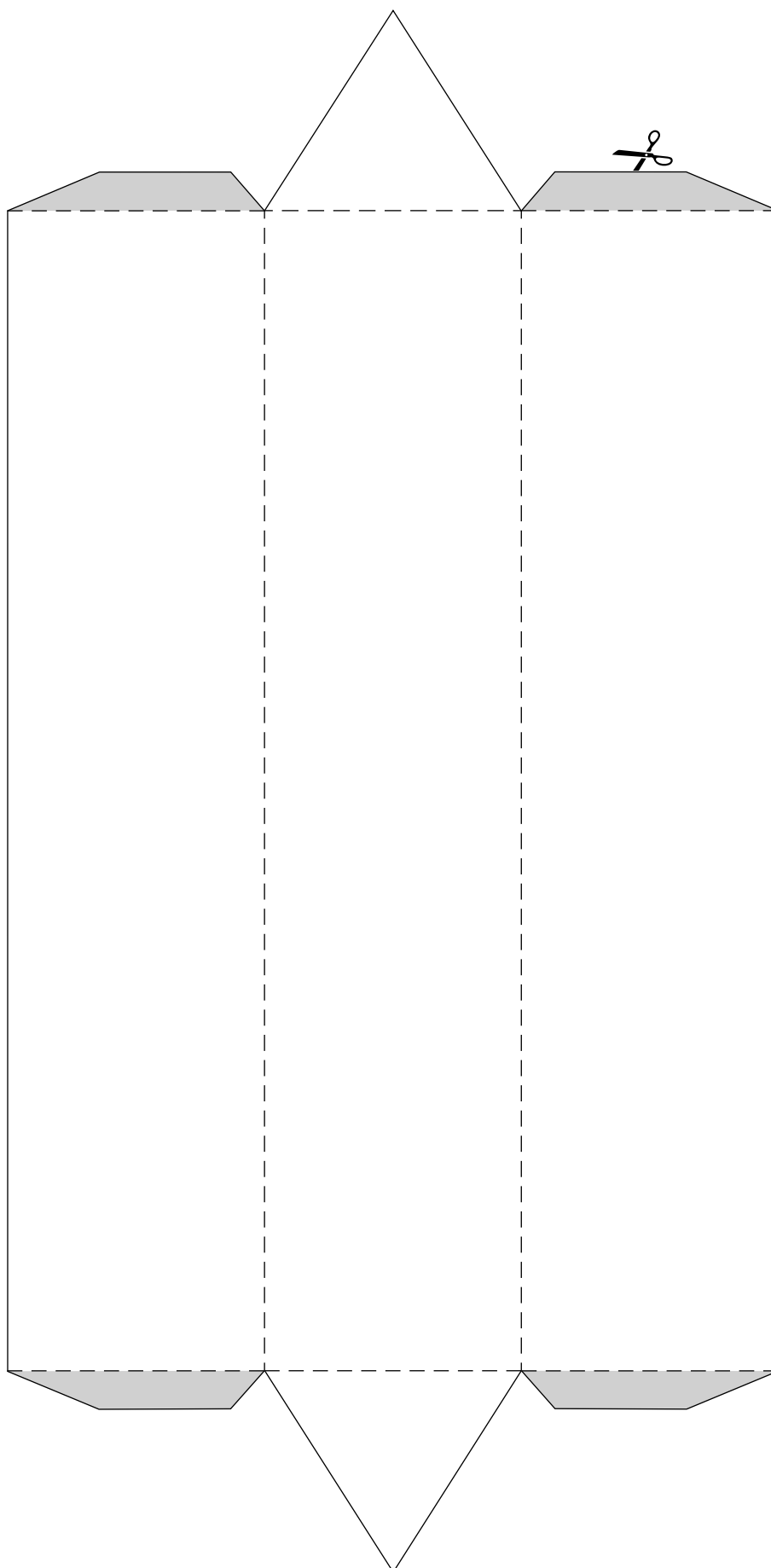
Square-based pyramid



Triangular-based pyramid



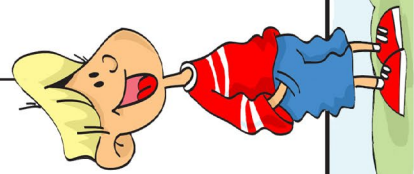
Triangular prism



Place value chart — Millions to thousandths

Place value chart

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

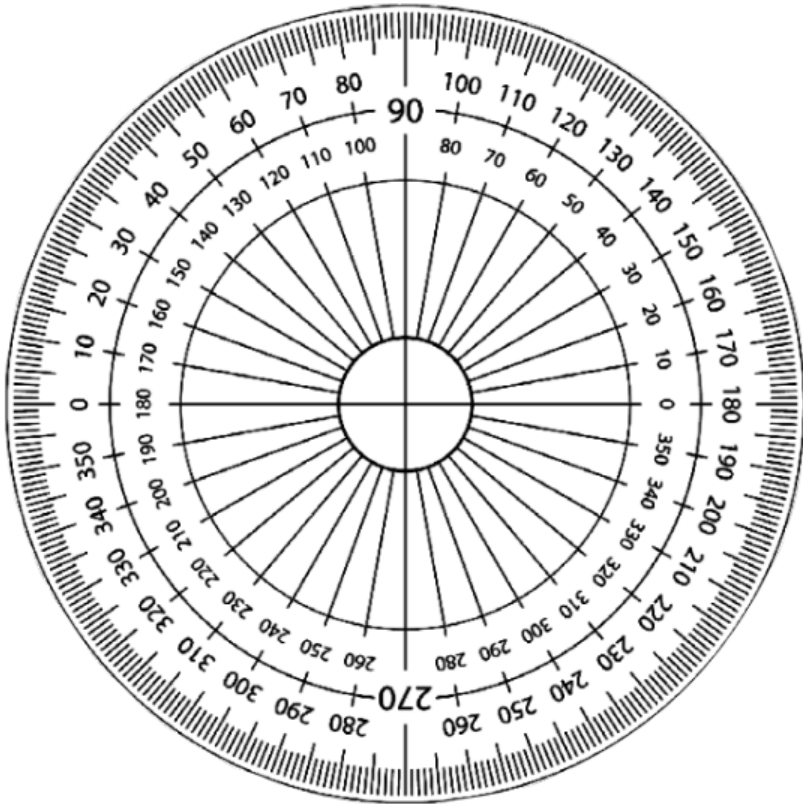


Parts of one				
tenths	hundredths	thousandths		ten-thousandths
		ones	hundreds	

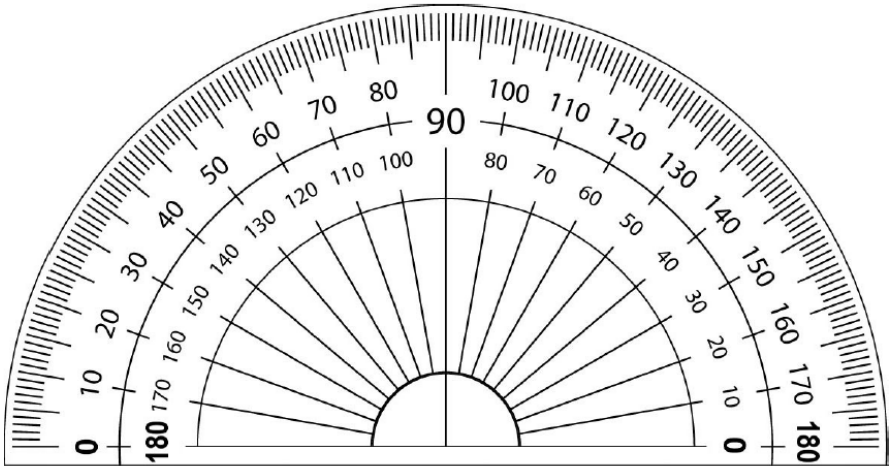


Protractors

360° protractor



180° protractor



Mathsercise

Mathsercise is a group of activities designed to support your 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 the students select and record a number. (The number can be an integer, decimal, fraction or large whole number).



Choose some activities from the following options:

Integers	Decimals	Fractions	Large whole numbers
<ul style="list-style-type: none">• Draw a diagram.• If today's number was a temperature, write three temperatures that are colder/warmer than it.• Count forwards and backwards by 1s, 2s, 5s.	<ul style="list-style-type: none">• Write in words.• Locate on a number line• Write as a fraction.• Count forwards and backwards in 0.2s, 0.05s, 4s.• Multiply by 10s, 100s, 0.1s.• Add/subtract/multiply by another number.	<ul style="list-style-type: none">• Write in words.• Draw a diagram.	<ul style="list-style-type: none">• Write in words.• Add/subtract/multiply by a similar number.• Is this number divisible by 4? Prove it.

Here's the answer, what's the question?

Have the students develop questions so that the answer is today's number.

Encourage students to use understanding of the meaning of the number as well as calculating using all four operations when creating their questions.

For example, if today's number is 6.2, the question could be:

- *What is the number halfway between 6.1 and 6.3 on a number line?*
- *What is $4.8 + 1.4$? or What is 3.1×2 ?*
- *What is 62 tenths written as a decimal?*

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.



Hot tip

It may be appropriate to consult the **Mathsercise** from previous year levels for activities to revise addition/subtraction facts and multiplication/division facts.

Calculator fish

(a game for two or more players)

This game reinforces place value and is played along similar lines to the Go fish card game.

What you need

- A calculator for each player

What to do

- Each player enters a number into their calculator containing a given number of digits (for example: 7 digits including tenths and hundredths). All the digits must be different (for example: player 1 might have 25 691.87 and player 2 might have 74 386.15 as their numbers).
 - Each player takes turns asking their opponent for a particular digit. For example: player 1 could ask: 'Do you have an 8?' In the example above, player 2 would answer: 'Yes'. Player 2 would subtract 8 tens from their number and player 1 would add 8 tens onto their number. (Player 1 would now have 25 771.87 and player 2 would now have 74 306.15 on their respective calculators.)
 - Play continues with each player taking turns to ask for a particular digit and then adding or subtracting.
 - If the player does not have the number that has been asked for, the player who has asked gets nothing for that turn.
 - The winning player is the one who has the larger number after 10 turns.
 - Alternatives: the game can conclude after a certain amount of time or when one player has the smaller number.
-

Flip the cards and add

(a game for two or more players)

What you need

- Pack of playing cards (remove all kings, queens, jacks and jokers; the ace represents one).

What to do

Working in pairs, students:

- take turns to flip over enough cards to make two three-digit and/or four-digit numbers
 - add the numbers together mentally (using jottings) and record the answer
 - check the reasonableness of their answer using an estimation strategy
 - swap calculations with their partner and check
 - compare the strategies they used to add the numbers.
-

Fraction four-in-a-line

(a game for two or more players)

What you need

- One dice
- One game board per player (sample shown below)

What to do

- Distribute one game board per player.
- Instruct players to take turns to:
 - toss the dice for the first time; this first number will be the numerator of the fraction
 - toss the dice for a second time; this second number will be the denominator of the fraction
 - cross off the square that matches (or is equivalent to) the fraction they have created.
- The winner is the player who has crossed off four squares in any row, column or diagonal.

For example: Toss #1 is 5. Toss #2 is 3.

The fraction created is $\frac{5}{3}$ so the square is $1\frac{2}{3}$ is marked off the board game.

$\frac{1}{6}$	$\frac{1}{5}$	$\frac{1}{4}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{2}{5}$
$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{3}{5}$	$\frac{2}{3}$	$\frac{2}{3}$
$\frac{3}{4}$	$\frac{4}{5}$	$\frac{5}{6}$	1	1	1
1	1	1	$1\frac{1}{5}$	$1\frac{1}{4}$	$1\frac{1}{3}$
$1\frac{1}{2}$	$1\frac{1}{2}$	$1\frac{2}{3}$	2	2	2
$2\frac{1}{2}$	3	3	4	5	6

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.

Bingo *(a game for two or more players and one caller)* or

Make a line *(a game for one player)*

The game of Bingo can be used to reinforce almost any concept in mathematics.

What you need

- blank 3×3 bingo cards (to make bingo cards) for each player

What to do

- The players fill the bingo card with nine numbers from a suggested answer list.
- The caller then calls out questions from a matching question list containing number problems.
- All players solve the problem. Players who have the answer to the question on their bingo card cross off that answer.
- The caller continues to call out questions until one player has three answers in a straight line. That player calls out 'Bingo' and wins the game.



Hot tip

Solo players may wish to call the game Make a line, because there will be no need to call out 'bingo'. They may generate the bingo calls by selecting questions out of a box or by flipping question cards. They may keep a track of the number of calls needed to get 'bingo' as a table or graph.

Here are some suggested questions and answers for Bingo. You will need more than nine questions and nine answers to play this game.

Question list	Answer list
$2328 + 4874$	7202
$8713 - 1463$	7250
$21738 \div 3$	7246
1442×5	7210
$4 \times (1136 + 667)$	7212
50% of 14 484	7242
$7577 + 65 - 434$	7208
A number divisible by 9	7236
13×556	7228

Students may wish to make their own question and answer lists, and play them with another player.

Target

(an activity for one or more players)

What you need

- 20 number cards (2 each of 0–9)
- One set of operation cards (+, −, ×, ÷) per player
- Two decimal point cards per player

What to do

- Each player is randomly given six number cards facedown. They are also allocated one set of operation cards and two decimal point cards.
- Give instructions for the players to reach a target number. For example:
 - Using only the + and − operation cards, arrange all six number cards to give a total as close as possible to 5388.
 - Using three of your six number cards and the ÷ card, arrange the cards so that a two-digit number is the dividend and a one-digit number is the divisor. Find the quotient/answer so that it is as close as possible to 7.
 - Using only the × operation card, arrange all six number cards to make an answer that is as close as possible to 93.

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 timetables to:

- calculate duration
- plan a trip involving public transport
- develop a timetable of daily activities.

Length

Have the students:

- convert between the metric units (millimetres, centimetres, metres, kilometres)
 - recognise the links between the prefixes.
-

Capacity

Have the students:

- convert between the metric units (millilitres, litres, kilolitres, megalitres)
 - recognise the links between the prefixes
 - make connections to volume.
-

Location

Have the students use transformations to:

- explore examples of translations, reflections and rotations in the environment (flips, slides, turns).
-

Shape

Have the students:

- identify types of prisms
 - identify types of pyramids
 - explore the construction from a variety of materials (for example: nets, skeletal models).
-

Angles

Have the students:

- compare the size of angles and identify:
 - angles on a straight line
 - angles at a point
 - vertically opposite angles.
-

Mass

Have the students:

- convert between the metric units (milligrams, grams, kilograms, tonnes)
 - recognise the links between the prefixes.
-

Money

Have the students use authentic information to:

- calculate prices on sale goods
 - calculate percentage discounts (10%, 25%, 50%).
-