MATHS

Lessons 21-23

Year 2

Topic: Number and place value

Applying mathematical concepts 2

Lesson concepts

- Fractional understanding — Equal parts
- Multiplication and division — Part-whole
- Patterns — Continuing patterns
- Time — Point in time
- Time — Sequencing
- Shapes and objects — Terms and properties

Today students will:

► apply mathematical concepts in a variety of contexts.

Resources

Digital

Learning object — Clever calendar (or a blank calendar month, printed and cut out)

Learning object — Geoboard (optional)

Find and prepare

Sheet 30 — Maths journey activity cards 2 (cut out)

Sheet 31 — Growth pattern rule cards (cut out and in a bag)

Sheet 32 — Centimetre dot paper (optional)

Sheet 33 — Shapes (cut out)

Sheet 34 — It's about time: Game cards (cut out)

A collection of the same object (for example: blocks, counters, or similar)

Exercise book

Container or bag

Blank paper

Coloured pencils

Digital camera or phone camera

Key terms

addition, array, corner, equivalent (equal), fraction, multiplication, partitioning, pattern, place value, side

For definitions and explanations of terms, please see the Glossary.

Lesson

Note

It is important to highlight and develop the following vocabulary throughout this lesson: number facts, three-digit number, hundreds, tens, ones, part, whole, represent, bridge, half, quarter, eighth, date, day, month, calendar, money, buy, sell, groups of, share, computation, shape.

Introduce the Maths journey

Say to students

“Over this series of lessons, you will continue your Maths journey by completing another set of games and activities that require you to use the mathematics skills and knowledge you have learned.

There are five new activities and games for you to choose from.”

Note

The Maths journey consists of 11 activities and games in total. Students have already completed six of these. The remaining five activities and games may be completed in any order. Students should attempt to complete as many as possible.

Conduct part 2 of the Maths journey

Say to students

“Let’s look at the Maths journey activities and games you can choose from so that we can decide the order in which you will complete them.”

- Provide students with **Sheet 30 —** Maths journey activity cards 2.
- Work with students to read through each activity card and decide on the order in which they will be completed.

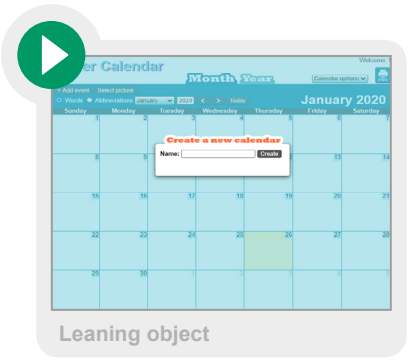
Journey activities

Note

Read each activity and game card from **Sheet 30** with students as they prepare to complete each task. Some students may not connect mathematics with the activity they are completing. Ensure students understand what they are required to do for each task and the related mathematical concept (for example: shape, patterns and algebra) by encouraging them to ask questions.

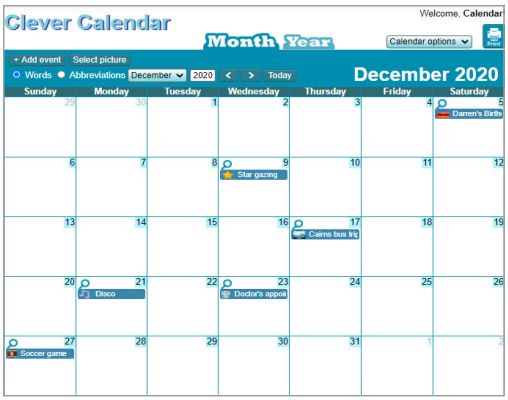
Activity 1: Clever calendar

- Mathematics focus — Time: Sequence
- Open the **Learning object — Clever calendar.**



> **Note**
>
> Set the calendar to show the month of December in the drop-down menu. Students can add events to the calendar by clicking on the 'Add event' button.

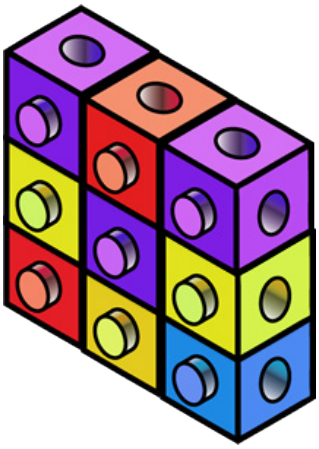
- Ask students to:
  - add the following events onto the calendar:
    - Darren's birthday on the 5th of the month
    - soccer game on the fourth Sunday of the month
    - Cairns bus trip on the 17th of the month
    - disco on the 21st of the month
    - stargazing on the 9th of the month
    - doctor's appointment on the 23rd of the month.



  - add three of their own events onto the calendar (for example: from newsletters, local events or special personal occasions).

Activity 2: Building patterns

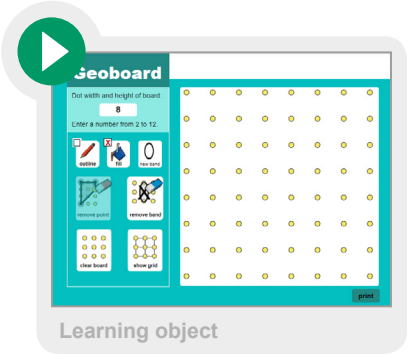
- Mathematics focus — Patterns: Describe patterns with numbers
- Provide students with:
  - a collection of the same object (for example: blocks, counters, or similar)
  - exercise book
  - pattern rule cards cut out from **Sheet 31 —** Growth pattern rule cards
  - digital camera or phone camera.

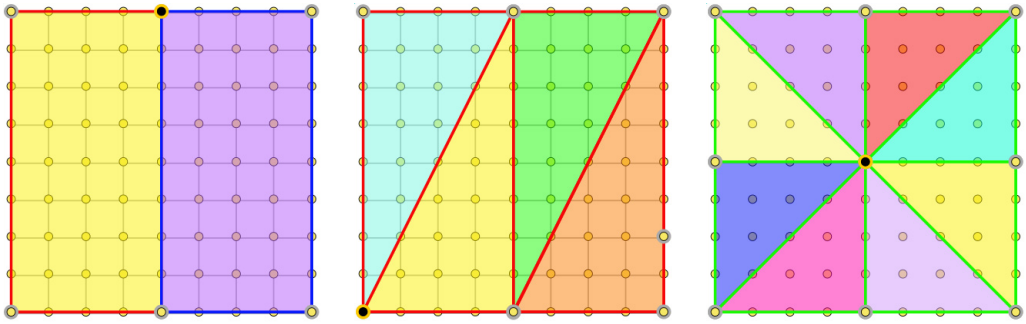


Activity 3: Fraction fun

- Mathematics focus — Fractions: Halves, quarters and eighths

- Open the **Learning object — Geoboard** (or provide students with **Sheet 32 —** Centimetre dot paper).

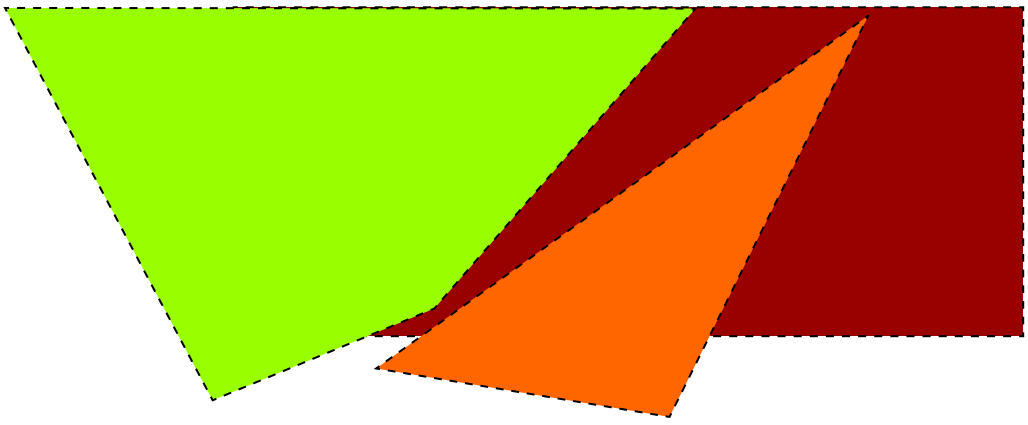




- Provide students with their exercise book.

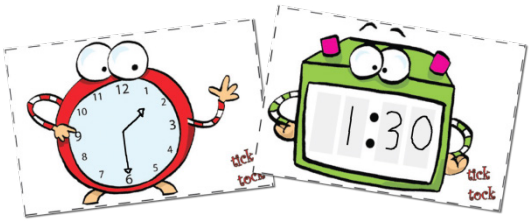
Activity 4: Overlapping shapes

- Mathematics focus — Shapes: Two-dimensional shapes
- Provide students with:
  - a variety of polygons cut out from **Sheet 33 —** Shapes
  - pieces of blank paper
  - coloured pencils.



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Activity 5: Time matching



- Mathematics focus — Time: Point in time
- Provide students with blank analog and digital clock faces cut out from **Sheet 34 —** It's about time: Game cards.
- Ask students to draw hands on the analog clocks to show 'half past', 'quarter past', 'quarter to' and 'o'clock' times.
- Ask students to write matching digital times on the digital clocks.
- Have students play Snap or Concentration with a partner.

Reflect on the Maths journey

- Ask students to reflect on the Maths journey by:
  - sharing their experiences of each activity, including work samples (for example: drawings from 'overlapping shapes' activity)
  - identifying and reflecting on the mathematics used to complete each activity.
- On completion of each Maths journey activity, ask students:

Focus question

Q. *What did you do in the activity or game?*

A. Personal response required.