MATHS

Lesson 22

Prep

Topic: Number and place value

Ordering collections

Lesson concepts

- **Equivalence** — Language
- **Number** — Subitising
- **Number** — Counting
- **Number** — Quantity

Today students will:

- identify numbers before, after and next in a number sequence
- compare quantities using ‘more’, ‘less’ and ‘same’.

Resources

Sheets

Sheet — Number track (cut out)

Sheet — Numbers 0 to 9 (from a previous leson)

Sheet — Dot dominoes to nine (cut out)
(or use a set of dominoes)

Find and prepare

range of materials to represent numbers
(such as blocks, counters or shells)

Key terms

before, after, next, order, compare, number, more, less, same, quantity, compare, count, describe, forwards, backwards

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

Lesson

Introduce the lesson

Explain to students that today they will be counting in ones from different starting points

Explain to students that today they will be identifying numbers in sequences and comparing quantities using ‘more’, ‘less’ and ‘the same’.

Recall the ones counting sequence from different starting points.

Identify numbers ‘before’ and ‘after’

Discuss the concept of ‘before’ and ‘after’ in relation to time.

Ask students to identify activities they did before and after an event (such as going for a walk).

Focus questions

Q: *What did you do before you went for a walk?*

Q: *What did you do after walking?*

Give students verbal instructions to follow to show their understanding of ‘before’ and ‘after’ (for example: ‘*before sitting, stamp your feet five times’* or ‘*after you sit place your hands on your head’*).

Discuss cause and effect relationships using the terms ‘before’ and ‘after’ (for example: ‘What might happen if you didn’t wash your hands before you ate?’ or ‘Why should you clean your teeth after eating?’).

Explain that students will arrange numerals in a sequence and identify numbers ‘before’ and ‘after’.

Distribute the cards cut from the **Sheet —** Number track or use the cards to 9 cut from the **Sheet —** Numbers 0 to 9.

Ask students with the 0 numeral card to place their card on the floor.

Ask students to identify the number that comes next.

Repeat with the remaining cards to 10.

Review the number track and discuss the numbers before and after a number.

Focus questions

Q: *What comes next in the sequence?*

Q: *Which number came before that one?*

Q: *How do you know that?*

Q: *What came after that number?*

Provide students with materials (such as blocks, counters or shells) to represent the ones counting sequence to 10.

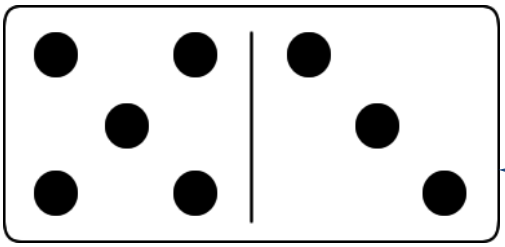
Ask students to:

- place 1 object then 2, 3, 4 … 10 in a sequence
- arrange the objects so the quantities in each collection may be easily compared
- describe how the collections change in the sequence
- identify that the collections 'before' have 'less' and those 'after' have 'more'.

Order collections

Provide students with dominoes or the domino cards cut from **Sheet — Dot dominoes to nine**.

Ask students to look at a domino and identify which side has more or less, or if the totals are the same.



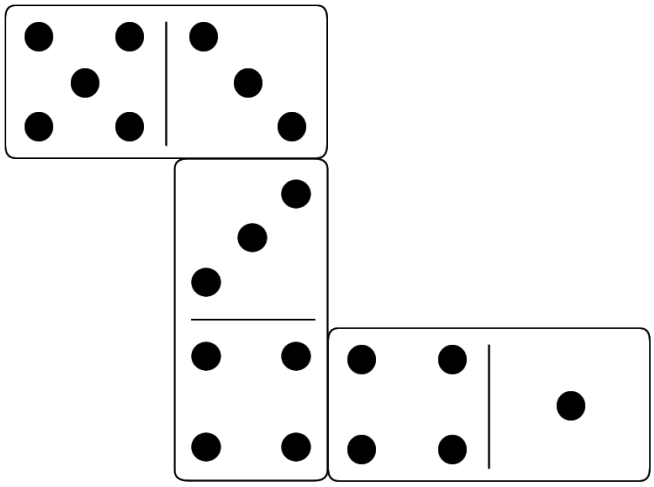
This side has three and the other side has five. Five is more than three.

Play a game of dominoes with another person where the first to place all their tiles is the winner.

Give six domino tiles to each player and place one starting domino tile face up on the floor.

Direct students to play the game by:

- looking at the starting domino
- connecting the ends of the tile with one that is the same quantity
- missing a turn and picking up an extra domino tile if they cannot match a tile.



Focus questions

Q: *Why did you place that domino there?*

Q: *Where else could you have placed it?*

Q: *What do you notice about the dominos that are joined?*

Organise students to work with another person.

Provide them with three small collections of objects (for example: 3 blocks, 4 blocks, 5 blocks).

Ask students to:

- work with their partner to decide which collections are the largest and smallest
- order the collections from smallest to largest
- draw the collections of objects and label them with numerals
- share and discuss their results.

Focus questions

Q: *How did you decide which collection was the smallest/largest?*

Q: *Is there another way you could have ordered your collections? Explain.*