MATHS

Lesson 4

Prep

Topic: Number and place value

Connecting number names, numerals and quantities

Lesson concepts

- **Number** — Names and symbols
- **Number** — Quantity
- **Number** — Counting
- **Number** — Subitising
- **Representations** — Concrete
- **Representations** — Symbolic

Today students will:

- represent and sequence quantities.

Resources

Digital

Learning object — Number names

Learning object — Make a match

Learning object — Count the animals

Find and prepare

Bag with collections of items to sort and count (a group of 1, 2, 3, 4, 5 and beyond)

Paper plates to sort onto

Cards with numerals to nine

Bags with a number to ten written on the outside (for example: paper or resealable plastic)

Key terms

numeral

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

Lesson

Introduce the lesson

Note

The following language is important to highlight and develop throughout this lesson:
before, after, next, order, numbers, quantity, count, sequence, more, less, how many, total, collection, numerals, largest, smallest, most, least

Describe collections using number

Display the contents of a collection bag.

Have students:

- sort the contents onto paper plates
- practise counting the contents, starting from different objects in the group and using different arrangements
- describe the groups by the number of objects in them (for example: a collection of four leaves)
- label the group with a numeral card
- order the groups according to quantity from largest to smallest or smallest to largest.

There are still three objects even if they are different sizes or arranged differently.

Focus questions

Q: *How could you describe this collection?*
A: For example: seven leaves, some brown leaves.

Q: Which collection is the largest? Why do you think that?
A: For example: This collection is larger because there are five on this plate and only three on the other.

Q: When you arrange the collection a different way, what can you say about the total?
A: For example: It stays the same.

Sequence collections using number — collecting a quantity

Share and discuss how a collection is a group of objects that are the same in some way. Provide each student with a bag clearly labelled with a numeral from one to ten on the outside.

Ask students to:

- make a collection of small objects to match the numeral on their bag (for example: feathers, blocks, stones, sticks, leaves)
- place the items in their bag
- check the totals in each bag
- compare the bags and contents, focusing on the number of items
- place the bags in order from smallest to largest/largest to smallest.

Focus questions

Q: *How many do you need to collect for this bag?*
A: Personal response required.

Q: What would you call your collection?
A: For example: a collection of five feathers.

Q: Which collection is the largest? How can you tell?
A: Personal response required. For example: I counted them or this number is the largest.

Q: Which is smaller, this one or that?
A: Personal response required.

Q: If you had a bag with (six) objects, where would you place it in the order?
A: Personal response required.

Q: Does this bag of four (feathers) have the same quantity as this bag of four (shells)?
A: Personal response required.

Q: If this bag looks fuller, does it have to have more? Why/Why not?
A: Personal response required.

Note

Highlight the need to:

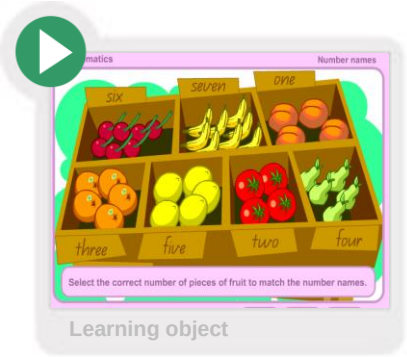
- check totals by counting, looking and seeing them in a glance, seeing smaller groups within the larger group
- focus on the number of items and how **what** they are counting doesn't affect the number.

Practise connecting quantities with number names and numerals

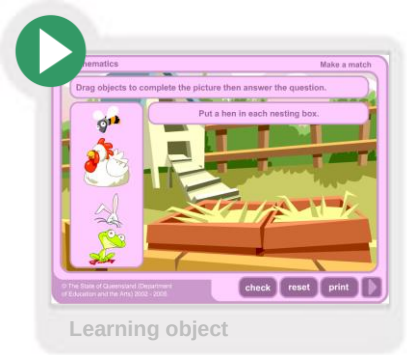
Demonstrate and assist students to manipulate electronic collections of objects.

Share and discuss:

- **Learning object — Number names**



- **Learning object — Make a match**



- **Learning object — Count the animals**.