

# MATHS





## Lesson 2

Prep

**Topic: Number and place value**

### Connecting numerals and number names

#### Lesson concepts

-  Number — Quantity
-  Number — Counting
-  Number — Subitising
-  Number — Names and symbols

Today students will:

- ▶ count to identify how many
- ▶ connect number names, numerals and quantities.

#### Resources

##### Find and prepare

- Blocks or similar solid objects
- Container (metallic or hard plastic)
- Cardboard or paper strips
- Stickers or collage materials for a display
- Sheet — Numerals and words to 20 (cut out)
- Sheet — Dot-to-dot

#### Key terms

numeral, sequence  
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: count, forwards, backwards, order, sequence, next, before, after, start, finish, number, more, less, add, take, position, number names, numerals.

### Introduce the lesson: Identify quantities

- Show students a pile of blocks (more than 12).

### Remind students

‘ Predicting how many is like guessing but you have to think about what you already know about counting before you predict. ’

- Ask students to:
  - look at the pile
  - predict how many blocks in the pile
  - suggest how they could check their predictions.



- Put the blocks one by one into a container and have students:
  - close their eyes and listen to the blocks
  - count as they hear the blocks hit the bottom of the container
  - check how their predictions match what they found out.



## Record numerals and names

### Note

In this section of the lesson, students will make a display. The display should be made to provide an accurate model for students to copy numeral formation and the writing of number names. Students should also be able to connect these to collections.

- Explain to students that they are going to make a display that could help them remember how to write the numerals and number names to twenty.
- Find **Sheet** — [Numerals and words to 20](#) and cut out the cards.
- Give each student:
  - a number name and numeral to represent
  - a strip of cardboard or paper.
- Ask students to:
  - trace over the number names and numerals with a thick pen
  - glue the number names and numerals on a strip of cardboard or paper
  - represent the quantities on the strips with stamps/finger prints/stickers, for example:



### Note

While students are working, highlight how:

- there are many ways to record quantities (for example: pictures, tallies, numbers, names)
- the digits, zero to nine, are used to make up numbers
- the order of the digits is important, just like the order of letters in a word, because it changes the meaning or value of the quantity.

Display the completed strips in a prominent place.

### Focus questions

- Q: *What digits can you see in this number?*
- Q: *How would you say the name of this number?*
- Q: *What patterns can you see in the numbers?*
- Q: *If you said that you had this many balls (point to word or numeral), how many would you have?*
- Q: *How could you show this many balls?*
- Q: *Does this mean the same quantity if you turn the digits around? How do you know? What about if you put the (zero) first?*

### Order numerals and number names

- Explain to students that sometimes numbers are used to help put things in order.

### Explain to students

- ‘ We use numbers to order:
- the pages in a book
  - the houses in a street
  - the rooms in the school
  - dots in a dot-to-dot.
- ’

- Tell students that they are going to create their own dot-to-dot.
- Have students complete an example of a dot-to-dot such as **Sheet — [Dot-to-dot](#)**.



### Focus questions

- Q: *Which number will you start at? How do you know that?*
- Q: *What number would come next? Which came before?*
- Q: *Is the next number close to the number you are on now or is there a challenge here?*

- Question students to help them plan how they will make their own dot-to-dot.

### Focus questions

*Q: What do you think a good dot-to-dot would look like? Why?*

*Q: What must you have in a dot-to-dot?*

*A: It should have a start, finish, numbers, dots and a final picture.*

*Q: What could you use instead of numbers?*

*A: I could use number names.*

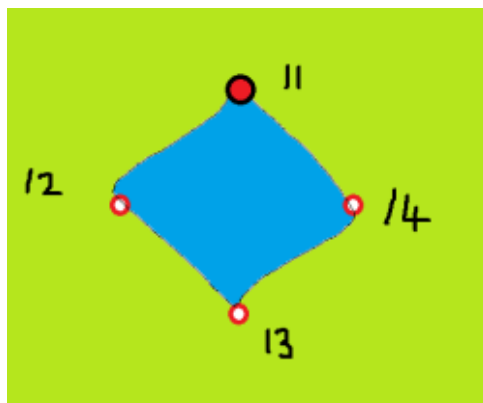
*Q: How will you make a dot-to-dot?*

*A: I will need a picture first then put dots on it. I will label the dots with numbers in the correct order.*

### Note

Encourage students to refer to the display of numerals and words.

- Assist students make a simple dot-to-dot by:
  - choosing a shape or simple picture
  - drawing it lightly in pencil
  - placing dots on the corners or along the way with a felt pen
  - identifying the start and finish with bigger dots
  - numbering the dots with a felt pen
  - rubbing out the pencil lines, for example:



- Ask students to share their dot-to-dot challenges with another person and have them complete the dot-to-dot.
- Discuss any problems and observations.

## Focus questions

*Q: What happened when your partner completed the dot-to-dot?*

*A: Answers will vary.*

*Q: What might have gone/went wrong? Why?*

*A: Answers will vary.*

*Q: How could you adjust your dot-to-dot so that your partner was more challenged/could do it more easily?*

*A: Answers will vary.*