## **Mathematics**



### Representation stations: Year 1 – Place value

#### **Teaching strategies involved:**

Collaborative Learning; Concrete, representational, abstract; Multiple Exposures; Questioning

#### Learning intention:

Think about different ways to represent two-digit numbers.

#### Success criteria:

I can:

- model two-digit numbers using various materials
- use reasoning to support precise representations sticks
- communicate my findings (through explanations and / or recordings).

#### **Materials required:**

- Access to a projector for slidedeck: Representation stations Year 1
- One copy of the organiser for each student
- Set up a variety of stations highlighting a variety of concrete materials and tools. For example:
  - o Bundling sticks
  - o Number lines
  - o Pebbles
  - o Dominoes
  - o Dice
  - o Tens frames and counters
  - o Abacus
  - o Place value charts

#### 1. Introduction: whole-class discussion (10–15 mins)

Use slides 1 to 11 in the slideshow to activate prior knowledge and facilitate a collaborative learning discussion about different ways to represent two-digit numbers.

#### 2. Hands-on exploration (15 mins)



# = Mathematics

Facilitate students to explore the different representation stations and model two-digit numbers from 20 to 99. Encourage students to be thoughtful about which numbers to model.

Throughout the exploration they might choose to represent a:

- favourite number
- number of interest
- number that will challenge them.

Observe how students are representing numbers using different tools and explaining their representations.

#### 3. Hands-on exploration with organiser (20 mins)

Once there has been ample time to explore various stations, gather class together to allow some reflection. Ask students to think about and share a challenge they had or overcame, whether they had a favourite station and why.

Explain that next the challenge is to each choose one number to model in different ways. Provide some time for students to think carefully about what number they will explore and why. Here you can prompt students to think about their general comfort level and familiarity with numbers of different sizes. Encourage students to choose a number that feels 'just right' for them to work with, that is, challenging enough to think about and not too easy.

Use slides 12 to 15 to introduce the organiser for recording on.

Provide students with a copy of the organiser.

Observe and facilitate students as they explore their chosen number and record their different representations.

#### 4. Conclusion: whole-class discussion (10–15 mins)

This is a chance to reflect on the activity and celebrate new discoveries.

Suggestions:

- What was your favourite representation station and what did you like about it?
- If you were to choose another number to explore after this one, what would you choose and why?
- What is something new you learnt during this lesson? How might you use something you learnt in this lesson in the future?