## =Mathematics Hub

## Representation stations: Year 2 - Place value

## Teaching strategies involved:

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

## Learning intention:

Explore different ways to represent two- and three-digit numbers up to 200.

## Success criteria:

I can:

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


## Materials required:

- Access to a projector for slideshow Representation stations - Year 2
- Copies of the organiser, enough for one for each student
- Concrete materials and tools to set up a variety of representation stations. For example:

| Bundling Sticks | Number Lines | Place Value charts | Tens frames and <br> counters |
| :---: | :---: | :---: | :---: |
| Place Value <br> Blocks (MAB) | Expression Cards | Money | Abacus |

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

Use any or all of the slides numbered 2 to 16 in the slideshow to activate prior knowledge and facilitate a collaborative learning discussion about different ways to represent two-digit numbers.

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

Facilitate students to explore the different representation stations and model two-digit numbers from 21 to 99. Encourage students to be thoughtful about which numbers to model. For instance, they may 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 together to allow some reflection. You could ask students to think about and share a challenge they had or overcame, or 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 make them challenging enough to think about; not too easy.

You may like to let students know that they are all expected to spend the whole time thinking about large numbers in different ways. There will be no early finishers, only continuous thinkers!

Use slides 17 to 21 to introduce the organiser for recording.

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 reflection on the activity and celebrate new discoveries.

## Suggestions:

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

