

Number visuals

Syllabus focus area and contents group

Represent the structure of groups of ten in whole numbers

- Count large sets of objects by systematically grouping in tens.
- Estimate, to the nearest ten, the number of objects in a collection and check by counting in groups of ten.

Suggested outcomes

- MAO-WM-01
- MA1-RWN-01
- MA1-RWN-02

Resources

- Hoops
- Counters or similar
- Whiteboards
- Markers

Learning intention

Students are learning that:

- the way we structure representations can help us to efficiently calculate the total of a collection.

Success criteria

Students can:

- count by tens and ones to identify the total in a collection
- rearrange collections to facilitate calculating the total

Introductory learning task

- View [number visuals video](#) on the Stage 1 Thinking Mathematically resources.
- Ask the students to study the number visual patterns, at first on their own.
- What do they notice? What patterns do they see?
- After students have a few minutes to look for patterns on their own ask them to share what they notice with their group. Ask each group to share something that they see.

Activity set-up

- Arrange hoops in a large circle in the playground.
- Place a large collection of counters in the centre of the circle.
- Group students in pairs.

Physically active learning task

- Students stand at a hoop with a partner.
- Teacher blows a whistle, one student from each pair runs in and collects a large handful of counters.
- Students run back to their partners and the hoop.
- Students describe what that collection might look like when grouped in tens, then communicates this to their partner.
- Pairs of students organise their collection by systematically grouping in tens so that someone can determine how many items there are by looking and thinking.
- When the collection has been made and the amount recorded, the second student runs into the middle and repeats the steps above.
- When all students have arranged their collection, students are encouraged to go on a gallery walk. Teacher calls out movement such as 'hop' and students hop around the circle. When the whistle blows, students stop and look at their peers' representation of an amount. Repeat with different movements so students see a range of peers' collections.
- Students return to their own hoop to consider the benefits of others' collections compared to their own. Students calculate and record the total amount in their hoop by combining their collection and their partners collection.