Thinking while Moving - Mathematics

Stage 1

Greedy bird maths

Syllabus focus area and content group

Use flexible strategies to solve addition and subtraction problems

- Represent addition and subtraction using structured materials such as a bead string or similar model
- Select and apply strategies using number bonds to solve addition and subtraction problems with one- and two-digit numbers by partitioning numbers using quantity value and bridging to 10 (Reasons about relations)

Suggested outcomes

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

Resources

- Bean bags labelled with numbers 1 – 20 (4 sets)
- Hoops (1 hoop per group of 3 plus 2 for center 'nests')
- Chalk, whiteboard and marker or pencil and workbook

Learning intention

Students are learning that:

- Combining tens and ones help make bigger numbers.
- Partitioning numbers helps to find the total.

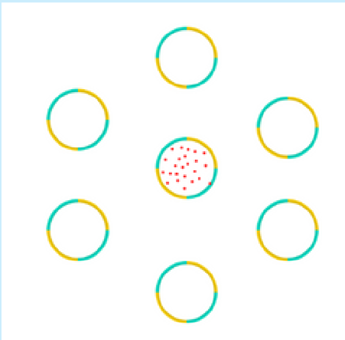
Success criteria

Students can:

- use efficient strategies to solve addition problems
- use a variety of ways of writing number sentences.

Activity set-up

- Teacher sets up 2 games of greedy bird math for a class of 20 – 25 (same as rob the nest).
- Evenly spread 5 hoops around a center hoop (see diagram).
- Place 2 sets of numbered bean bags into the center circle. (bean bags are numbered 1 – 20.
- Group students in pairs.



Talking and thinking like mathematicians

- How was your and your partners thinking the same and different?
- What was the most efficient strategy?
- What can you do differently next time to be more efficient?
- How did you decide what numbers to collect to make the smallest sum? Largest sum? Smallest 3 digit number? Largest 3 digit number?

Learning task

- Students stand behind a hoop in group of 2.
- On the whistle, one student from each nest will run to the center circle and collect one bean bag at a time, returning each one back to the nest without dropping or throwing it.
- Once all bean bags have been retrieved from the center, players are then allowed to take bean bags from other nests.
- Blow the whistle at a time when all nests have at least 2 bean bags each.
- Once the whistle has been blown, students must freeze and then arrange their bean bags to create an addition number sentence (bean bags can be grouped to make 2-digit numbers).
- Students solve the addition number sentence using an efficient strategy.
- Once solved, bean bags return to the middle and play resumes on the whistle.

Variation

Make the largest sum
Make the smallest sum
Make the smallest possible 3 digit number
Make the largest possible 4 digit number
Make a number sentence with an odd number as the answer
Make a number sentence with an even number as the answer