

Balancing act

Syllabus focus area and content group

Data A

- Collect discrete data
- Organise and display data using tables and graphs
- Interpret and compare data

Suggested outcomes

- MA2-DATA-01
- MAO-WM-01

Resources

- whiteboard
- marker
- beanbags

Activity set-up

Students play in pairs, 5 metres apart, in their own space either on the playground or in the classroom.

Learning task

Part 1: Estimate

- Students estimate how many throws they think they will catch out of 7. Record this data to later graph in a side-by-side column graph.
- Students stand on one leg, 5 metres apart and count how many times they catch the bean bag. Each student must pass the bean bag 7 times.
- Students record their findings.
- Teacher asks ‘What type of table could you use to record your estimations and results?’
- After the first attempt, students record their next estimation based on their last results.
- Students complete the task 5 times.
- Teacher asks; “Do you think you will improve?” “If you had to do this again how would you plan to keep your data?” Can anyone create a table that would work for everyone?”

Part 2: Exploring data

- Challenge students to create a two-way table that is titled “Estimation v’s My Reality - catching on one foot” using the data collected in this task.
- Students then use the data in their table to construct a side-by-side column graph.
- Teacher asks “What are the essential components of a side by side column graph?” “What data are we comparing?” “How does this data need to be structured in order for us to compare?”

Part 3: Communicating results

Students communicate their findings to their peers and discuss results of the task using the questioning prompts

Talking and thinking like mathematicians

What will the graph look like? How much data did you need to collect? How was yours the same or different to everyone else's? What do you need to remember for next time? How did you refine your data representations?