Thinking while Moving - Mathematics

Bean bag golf

Stage 3 mathematics | **Strand: Statistics and Probability** | **Sub strand: Data**

Activity set-up

Set up 9 hoops around an outdoor area 10-50m apart to represent a golf course.
Include obstacles such as trees & buildings.
Mark starting position for each hole with a number marker.
Form student groups of 3 or 4 using Alphabet Names

Pre-task: Students will need to be familiar with 2-way tables, line graphs and side-by-side column graphs.

How to play

- Groups each start at a different hole.
- Students throw the bean bag aiming for the hole and count how many throws it takes to get the bean in the hoop.
- Students complete each hole twice, once with left hand and once with right.
- Students record number of throws for each hand on recording sheet.
- Students move around the course completing each hole and recording number of throws each time.

Challenge

- Students work in their group of 4 to discuss ways in which the collected data can be displayed. (See talking and thinking like mathematicians for question prompts and guidance)
- Students construct data display for their individual results from Bean bag golf.
- Students share their data display with group. Group discusses the advantages and disadvantages of different representations of the data. (communicating and reasoning)
- Group decides on the most effective data set to present and explain to class why it is the most appropriate graph and/or table.

Equipment/Resources

- Hoops (golf holes)
- Bean bags
- Clipboard
- Individual Recording sheet
- Class recording sheet

What's some of the maths

Mathematicians use and create tables to collect data.
Mathematicians represent data in different ways.
Mathematicians use what they know to work out what they don't know.
Mathematicians communicate and reason when solving problems.

Let's talk and think like mathematicians

How can we accurately collect and record our bean bag golf scores?
What are some effective ways to display our data?
Why is it important for a graph and table to have a title and labels?
Why did you choose to display your data in that way?

Suggested mathematics outcomes

MA3-1WM: describes and represents mathematical situations in a variety of ways using mathematical terminology and some conventions
gives a valid reason for supporting one possible solution over another
MA3-3WM uses appropriate methods to collect data and constructs, MA3-18SP interprets and evaluates data displays, including dot plots, line graphs and two-way tables

NSW GOVERNMENT

THINKING while MOVING