



Active Insight: Evidence in Action



Tip #848: Practical Measurement Through Movement

Overview

Movement-based learning gives students real reasons to use measurement in practical situations. As they measure how far they jump, estimate and check distances, compare times, or collect data from movement activities, mathematical ideas become easier to understand because students can see and experience them for themselves. Connecting measurement to movement helps make concepts such as distance, rate and averages more concrete and easier to remember.

Key Teaching Ideas

Getting the most from movement-based measurement activities means giving students time to work with the data they collect, not just record it. After completing a movement task, students can calculate averages, compare results, identify patterns and discuss why their measurements differed. For example, after measuring the distance of three standing long jumps, students work out their average jump, calculate the range between their shortest and longest attempts, and consider what may have influenced their results. Collecting and analysing their own data makes the mathematics more meaningful and easier to understand.

Practical Application

- **Classroom Distance Challenge:** Estimate the distance between different points around the classroom or school before measuring the actual distance with tape measures or trundle wheels and comparing the results.
- **Movement Measurement Circuit:** Rotate through movement stations such as standing long jumps, beanbag throws and balance walks, recording measurements at each station before calculating averages and comparing results.
- **Timed Movement Investigation:** Complete a short movement course several times, record each attempt, calculate the average time and discuss what helped improve performance.
- **School Mapping Activity:** Walk a planned route around the school, measure the length of each section and add the distances together to calculate the total distance travelled.



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- **Data Collection Walk:** Measure features around the school, such as the circumference of tree trunks, the length of garden beds or playground equipment, before organising, comparing and interpreting the data back in the classroom.

Next Steps

[Anywhere PD](#) has resources on measurement-integrated movement and active maths tasks. The [Active Education Australia website](#) also offers tools for cross-curricular unit design.

References and Research

1. Australian Curriculum: Health and Physical Education (Version 9.0) – Supports learning through movement while developing movement competence, problem-solving and meaningful cross-curricular connections with mathematics.
2. Kuczala, M. (2015). *The Kinesthetic Classroom: Teaching and Learning Through Movement* – Demonstrates how purposeful movement enhances understanding of academic concepts by connecting physical experiences with cognitive learning.
3. Australian Sports Commission. (2019). *Australian Physical Literacy Framework* – Explains how physical, cognitive, psychological and social capabilities develop together through purposeful movement experiences that promote problem-solving, confidence and learning.
4. Rosenshine, B. (2012). *Principles of Instruction: Research-Based Strategies That All Teachers Should Know* – Summarises evidence-based instructional principles including explicit teaching, guided practice, questioning and regular review to improve student learning and long-term retention.