

What measures will you take ?

Australian Better Health Initiative
A joint Australian, State and Territory government initiative.

Pedometers in K-6 Schools



Why Pedometers?

The K-6 PDHPE syllabus aims to promote a positive attitude to a lifetime of regular physical activity.

Pedometers are an affordable and effective tool for increasing and measuring physical activity.

Classroom pedometer activities help address the outcomes and indicators for the Active Lifestyle strand of the K-6 PDHPE syllabus. Teachers also report positive outcomes in relation to problem solving, self monitoring, estimation, group work and goal setting skills.

Pedometers are;

- easy to use
- accurate
- non-threatening
i.e. they emphasise participation over skill
- motivating
- private/self monitoring

Pedometers measure the amount of physical activity rather than intensity, skill or fitness. Focusing on steps achieved in an activity takes the emphasis off winning/losing/fitness, and supports the idea that being active every day is important.

How many steps are we aiming for?

Current research suggests about 12,000 per day for girls and 13,000 per day for boys is ideal. However this may represent too high an initial target for some children. It may be best to assess current step levels to establish a starting point, set a goal and then aim for small, regular increases.



Administrative issues

Pedometers and batteries will need to be replaced from time to time. Batteries last about two years.

It is fantastic to loan pedometers out for students and families to use at home. However some loss and damage of pedometers will occur. Possible approaches include only loaning to students who demonstrate responsible usage at school, or even having parents sign a loan request including an agreement to pay a small replacement fee if the pedometer is lost or damaged (sample attached). At the least, set up a check out form (sample attached).



Pedometers should be checked periodically for accuracy. Up to 10% error over a test of 30 steps is considered acceptable for school use. To test, position pedometer correctly and take 30 normal steps. Readings of between 27 and 33 steps are in the acceptable range i.e. plus or minus 10%. The most common cause of inaccuracy will be a weak battery.



How active are your PE classes? Use pedometers to assess your program.

Trying to increase the time spent moving during your PE classes? Use pedometers on your students to see just how many steps they're getting. Research suggests that good PE lessons (including instructional and other inactive time) should be contributing about 2000 steps per 30 minutes. Obviously this will differ for different types of lessons.

Steps can be increased by choosing activities that maximize participation, restricting instructional time and coming up with active ways to form groups, distribute equipment and other management tasks.



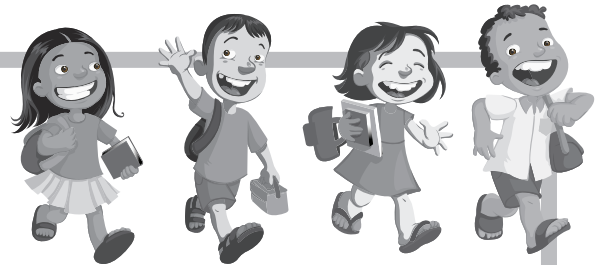
Pedometer Activities for your class



Tips for introducing pedometers to students

- Provide students with a chance to explore how the pedometer works.
- Discourage students from shaking the pedometer to artificially increase step counts by having a “You shake it, we take it” rule.
- Teach students how to place pedometers correctly on themselves. The pedometer should be worn on the waistband or belt, in line with the right kneecap parallel to the ground. Students with a fuller waist may need to position the pedometer on their lower back above the back of the knee to keep it vertical. Try out a variety of spots and test for accuracy.
- Use the safety strap at all times to prevent loss and damage.

Introductory activity ideas



- How many steps can you accumulate in 30 secs?
- How many steps do you accumulate in 1 minute of jumping jacks?
- Perform 10 repetitions of a variety of activities and see how well the pedometer counts them. Examples include jump, baby steps, giant steps, hops, slides, gallops, fast walk, slow walk, backward walk, jumping jacks, twists, skips, crunches. Discuss why some movements record more accurately than others.
- Try to move from one spot to another accumulating as low a count as possible on the pedometer. Solutions may include important knowledge like pedometers don't count steps when the cover is open and they need to be in a vertical position for them to work.
- Have students stand at a starting point and estimate how many steps it would take to reach various other points in the playground. Check estimates by walking the distances with their pedometer.
- Guess how many steps. Ask students how many steps they think they might accumulate during a given physical activity session. Compare different types of activity e.g. dance versus gymnastics.



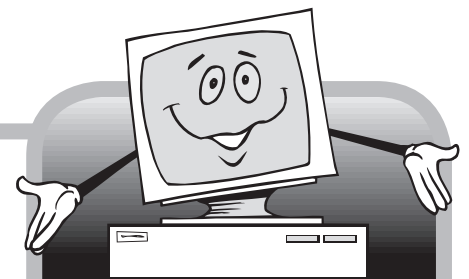
Other activity ideas

Set step count goals – devise a plan to maintain or increase your daily step count.

Pedometer Orienteering – Design a course around school. Leave a letter at each station that the students have to find. Clues include a range of steps (a range allows for different stride lengths) e.g. “from landmark Z head directly for the front gate for 50 to 60 steps, turn 90 degrees to your left and proceed for a further 90 to 100 steps, look for clue 3 here”.

Use pedometers to encourage increased activity in PE classes. Award bonus points in minor games for teams who achieve high step counts e.g. play a ball handling exercise where teams of 2 or 3 attempt to have as many successful throws and catches in 2 minutes, (1 point per catch) bonus 10 points for every completed 50 steps...suddenly a low intensity activity becomes vigorous! Particularly good for activities where some members of the team are inactive while waiting for their turn such as in shuttle relays.

Have students wear pedometers during a physical activity session that they do regularly such as a fitness circuit. Challenge them to find ways to increase their step count for the activity.



Helpful Resources

'Pedometer Power – Using Pedometers in School and Community', Pangrazi, Beighle, Sidman. Available through the ACHPER Healthy Lifestyles bookshop www.healthylifebookshop.com.au

Be Active Take Steps – A pedometer based health and physical education resource for Years 4-8. Includes activity sheets, ideas for practical activities, loan schemes, ideas for involving staff and parents. Order forms are available from www.healthpromotion.com.au

The Human Race www.human-race.org Loads of ideas for increasing physical activity including pedometer activities. Registration and fee required.

Walk Smart Virginia. Pedometer based physical activity program for Virginia USA schools. Includes 51 page Cross-curricular ideas for pedometers. This document can be downloaded from www.healthpromotion.com.au Other documents from this project are accessible at <http://www.doe.virginia.gov/VDOE/Instruction/PE/walksmart/>

Cross-curricular ideas

Science and Technology – Draw a map of the school and use the pedometer and your stride length to measure and record relevant distances. Children could be asked to do the same for a walking route they could plan at home. Test whether walking at a higher speed for a given distance results in more or less steps. Report on walking as a form of transport.

Mathematics – Produce graphs of individual and class step counts. Work out average individual stride lengths and use to convert steps to distance. Create graphs comparing steps taken at school, at home, on weekends.

HSIE – Track progress in a virtual walk around the country or to some important sites. Find and report information on the sites you reach.

English – Write a marketing campaign for pedometers.

Creative Arts – Create a poster promoting active transport.

