

Pedometer Activities

Teaching Outcomes:

- I can roughly estimate how many steps it will take to cover a specified distance.
- I can explain why activity time is better than steps for measuring my physical activity level.
- I can calculate my baseline activity and set a personal goal.

Pedometer Activities:

Identify an Accurate Pedometer Placement

1. Explain that the best location for the pedometer is usually on the waist over the midpoint of the kneecap. However, for some people, other placements may be more accurate. The objective of this activity is to identify the most accurate placement for each student.
2. Ask students to place the pedometer on the waistband in line with the kneecap. Ask them to reset the pedometer so the step display shows zero steps. Have them walk and count (quietly) 30 steps. Stop on the 30th step and check the pedometer display. Ask the class to write down or remember the number of steps their pedometer counted. Then go to Step 3.
3. Show the class how to move the pedometer a few inches toward their hip. Have them reset the pedometer and repeat Step 2 above. Record or remember the number of steps the pedometer counted. When finished, go to Step 4.
4. Ask the class to move the pedometer a few inches past their hip so the pedometer rests on their back. They may need a friend to help them put the pedometer on their waist band. Have them reset the pedometer and repeat Step 2 above. Record or remember the number of steps the pedometer counted.
5. If some students' pedometers are still not recording accurately, have them try a belt of some type such as a flag football or team belt. Another possibility is to fasten it on a pocket that is level (parallel to the floor).

Understanding Step Count Differences

1. Ask students to find a partner who is different in height or build.
2. Have the class press the mode button until the step counter is showing.
3. Reset the pedometers and tell the class to begin walking with their partner in a "Follow the Leader" manner until the "freeze" signal is given.
4. Partners stop on signal and record their step counts.
5. Have partners compare their step counts and discuss why there is a difference. As the discussion evolves offer some of the following possibilities:
 - Their partner was taller or shorter.
 - Their pedometer or the placement of the pedometer wasn't accurate.
 - They didn't follow their partner exactly around the course.
 - Their partner had longer or shorter stride lengths.
 - Their clothes were loose fitting and made the pedometer inaccurate.

Jogging versus Walking – How Many Steps?

1. Set up or use an existing walking or jogging track. Mark the track off with cones so it is easy for students to see the entire course.
2. Explain that they will move around the course twice. The first time they will walk the track and the second time they will jog. The objective for this activity will be to guess which takes more steps – walking or jogging. The second goal is to guess which takes longer (activity time) – walking or jogging.
3. Have the students get a record sheet to record each of their four guesses, i.e., walking steps, jogging steps, walking time, and jogging time.
4. Ask students to find a starting point (they can start and finish at a selected cone along the track). Have the class reset their pedometers and

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walk the course at a comfortable speed. Tell them to stop at the end of the course and record their actual walking steps and activity time.

5. Repeat Step 4. Except have the class jog (or fast walk for those students who find jogging too demanding).

6. Discuss the factors that can impact the number of steps they accumulate when walking or jogging such as:

- The type of activity such as playing a game or walking
- The length of strides
- The speed of the activities

Estimating Steps required to Travel a Distance

1. The purpose of this activity is to guess the amount of time it takes to cover to specified distance. Have students repeat Jogging versus Walking for this activity. The course should be large enough so students will not be crowded as they walk. Students can start at one of the three corners of the course to reduce the number of students starting at the same spot.

2. Give students a record sheet to record their step guesses and actual step counts. Have them guess and record how many steps they think it will take to walk each side of the triangle.

3. Get the class to the starting point and ask them to press the mode button until the step counter is showing. Ask them to reset their pedometers.

4. Walk side one of the triangle, stop and record the actual number of steps it took to cover the distance.

5. Ask students to reset their pedometers after walking each leg of the triangle and repeat Step 4 for the other two sides of the triangle.

6. Ask students to compare the actual number of steps they took with the number of steps they guessed.

Estimating Walking Time

1. This purpose of this activity is to guess the amount of time it will take to cover a specified distance. Have students repeat the steps used in Activity 3 above.

Calculating Baseline Step Counts & Activity Time

1. Students create a Baseline Step Count & Physical Activity worksheet. For four days (eight days for secondary school students) during physical education class, students monitor their step counts and minutes of physical activity. At the end of each physical education class, students record their step counts and activity time on the worksheet. To calculate an accurate baseline, measurement time must be equal, for example, 30-minute periods.

2. At the end of the four-day period, have students calculate their average physical education step counts and activity time by totaling the four days and dividing by 4.

3. The goal is that students learn about their average daily step counts and physical activity time. As an intermediate step to 24-hour surveillance, begin by having students identify their school day baseline. Establish a set time for students to start recording steps and activity and a time to record the data at the end of the day. After students can record their data independently, they can begin to collect daily baseline data on themselves for a 24-hour period.

Calculating Personal Activity Goals

1. Gather baseline step count and physical activity baseline data prior to beginning this activity.

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2. Teach students to calculate their personal activity time goals by increasing their baseline activity level by 10%. For example, if a student's baseline activity is 12 minutes, they will increase their activity goal to 13 minutes. Note that partial minutes (.2) have been rounded off. This makes it much easier for students to calculate.
3. Have students calculate their personal step count goals by increasing their step counts by 10%. For example, if a student's baseline step count is 1200 in their physical education class, they will increase their step count goal by 120 steps to 1320 steps.
4. Students then pursue their goal for the next 14 days. If they achieve their goal most of the days (8 or more), they increase their goal by another 10 percent of their baseline. If they do not achieve their goal, the existing goal is maintained.
5. Discuss goal setting and what a reasonable terminal goal should be. In other words, "How much is enough?"