



# SciGirls



Discover the fun of science with your entire family!

## Take it in Stride

The Physical Activity Guidelines for Americans recommends that youth (ages 6–17) engage in at least one hour of physical activity daily. When it comes to walking, studies show that for 6- to 12-year-olds, girls need 12,000 steps/day and boys need 15,000 steps/day to stay healthy. Get your family stepping by **measuring stride length**. It's an important factor for speed in many sports, such as soccer, and can even help you estimate distances without a ruler!

Here's How:

1. Talk about the difference between a step and a stride. (A step is the distance between the heel print of one foot to the heel print of the other foot. A stride is the distance from the heel print of one foot to the heel print of that same foot, or two steps.) The distance you travel is related to stride length by a simple equation:

$$\text{stride length} = \frac{\text{distance}}{\text{number of strides}}$$

2. Devise a way to measure your own stride length using the equation above. Here are some ideas:

- ★ Mark a set distance (e.g., 20 ft.) with tape and count the number of strides it takes to walk it.
- ★ Pick a certain number of strides (e.g., 10) to do, and then measure the total distance covered.

**POINTER:** Take a few steps to get into your "normal" stride before measuring. Stride length can change while walking, so taking many strides is important, and the longer the distance, the more accurate the measurement.

## You'll Need:

- ◆ tape measure
- ◆ paper and pencil
- ◆ masking or duct tape

3. Calculate the average stride length of each family member and compare. Can you think of reasons why your stride lengths differ?
4. Choose a place (e.g., your backyard) and walk from point A to point B, counting the number of strides. (Remember: one stride equals two steps!) Then use your average stride length to calculate the distance. How accurate were you? Can you figure out the distance you walk to the playground? To walk the dog? If you wanted to get in your 12,000 steps each day, how many stride lengths is that? How far would you go?

## Fun Fact!

Physical activity is good for all parts of your body—including your brain! Blood circulation increases during exercise, giving your brain and other organs a boost of oxygen and nutrients. As a result, brain function improves, leaving you feeling more mentally sharp. And since you don't have to engage in strenuous exercise to get these benefits, walking is something the whole family can enjoy!

