



Racing Arms

KEY SKILLS(S) and CONCEPT(S): Proper running form

SUGGESTED GRADE LEVEL(S): Grades 6-8

OBJECTIVES(S): Students will be able to:

- Demonstrate proper racing arms form
- Understand the importance of stride frequency and stride length

SUPPORT NATIONAL STANDARDS FOR PHYSICAL EDUCATION (NASPE, 2004):

2 - Demonstrates understanding of movement concepts, principles, strategies, and tactics as they apply to the learning and performance of physical activities.

MATERIALS NEEDED:

- Level race track or running area, stopwatch, bungee cord (optional), paper and pencil

DESCRIPTION:

1) Use an area that you can mark lines to start and finish. One partner goes to finish line to be recorder, while other partner goes to start line to be runner. When the teacher says go, runner runs as fast as he/she can to finish line with one restriction: you can't move your arms. Students can hold a jump rope folded in half behind them to avoid using arms. Record time (have teacher at finish line to read times as students cross for recorder to record for partner).

2) Switch places with partner and time him/her and record.

3) Run the course again. Pump your arms as much as you like. Record times on this run. Did times improve?

TEACHING SUGGESTIONS/TIPS:

- Have discussion about what is going on...

Freeing your arms should result in a faster run. That's because you need your arms free for good running form. How fast you run depends on stride frequency and stride length. Stride frequency is how many steps you take (this can be improved through conditioning routines such as jumping rope). Stride length is how much distance you cover with each step. Pumping your arms with each step lengthens your stride. That's because as you drive your elbow up, it causes your knee to lift higher. When the knee is higher, it takes longer to get back to the ground. So you cover more distance with each step.

REFERENCES:

Mercer, Bobby. *The Leaping, Sliding, Sprinting, Riding Science Book: 50 Super Sports Science Activities*. New York, NY: Lark Books, a division of Sterling Publishing Co., Inc., 2006.