Target Heart Rate Zone (THZ)

To improve aerobic capacity, training needs to occur in the THZ. This can be determined by perceived exertion; how hard we think we are working, or by using a heart rate monitor (HRM) and a personalized THZ.

Karvonen method of determining THZ:

Start by determining resting heart rate (RHR) __________

220 - __________ = ______________

age maximum heart rate (MHR)

_____________ - ______________ = ______________________

MHR RHR Heart Rate Reserve (HRR)

(___________ X .60) + _________ = _____________________

HRR RHR Low end of target heart rate zone

(__________ X .80) + _________ = _____________________

HRR RHR High end of target heart rate zone

Pedometers are used to quantify movement. Programmable pedometers can also estimate miles traveled and calories spent. Stride length and body weight are needed to program a pedometer. For accuracy, pedometers should be worn in a vertical position at the natural waist, in line with the kneecap.

To determine stride length:
Walk 10 normal strides.
Measure the distance traveled. __________ / 10 = __________

Divide the distance by 10. feet traveled stride length

Label activity 1 – 4 on Pedometer Data Sheet as
1. Ultimate Frisbee
2. Foosketball
3. Tchoukball
4. Hoop ball.

After each activity, record number of steps and reset.

Low organization/high cardiorespiratory endurance games allow students of different sizes and ability to participate more equally. The skills necessary to play are low level and do not impede the level of success. The emphasis of each
game is cardiorespiratory endurance. At natural breaks, (after a score, out of bounds, all players determine and call out heart rates. Note heart rates below target.

**Ultimate Frisbee**  
Played on a rectangular field.  
Point is scored when the Frisbee is caught over the end line.  
Teams change goal line after each score.  
Player must pass Frisbee within 5 seconds.  
Player may take two steps after catching the Frisbee.  
No contact allowed. All players must remain an arm with Frisbee length away.  
An incomplete pass turns over to the other team.  
Game is started by a throw across the field.

**Foosketball**  
Basketball played with a football.  
Point is scored when a football passes through the basketball goal.  
Can be played with multiple teams.  
Ball must be passed within 5 seconds.  
Player may take two steps after catching the ball.  
No contact allowed.  
Game is started and restarted with a jump ball.

**Tchoukball** (Murray High School rules)  
Point is scored when a ball, rebounding off the goal (tramp) is not caught by opposing team.  
No contact allowed.  
No defensive action allowed (interference, interception)  
Team must attempt score after 3 passes. (use 5 with larger field)  
Ball must be passed within 5 seconds.  
Game is started with a pass from the end line.

**Hoop Ball**  
Point is scored when team member catches ball while standing in the hula-hoop.  
(Murray modification: when a goal is scored, the opposing team performs a designated exercise; i.e. blue hoop= 15 curl ups.)  
Teams change goal line after each score.  
No contact allowed.  
Ball must be passed within 5 seconds.  

At the conclusion of the activities, create a bar graph of your steps and the class average.  
How do your steps compare to the average?