Central Arizona-Phoenix Long-Term Ecological Research Project

Name: _____ Per: _____ Date: _____

Pace and Space

1. Using a tape measure, lay out a line 20 meters long.
2. Mark the start and finish
3. Walk the line with your normal walking stride and count the number of paces you walk. Record your data on the chart below.
4. Do this four times and compute the average number of paces you take to walk a 20 meter line.

Trial 1	Trial 2	Trial 3	Trial 4	Average

5. Determine the length of your pace in meters (use math!)

Mapping your yard:

1. Decide which edge of your yard will serve as a baseline (from which all measurements are taken). Usually a wall or the side of the building make good baselines, especially if they are oriented N-S or E-W.
2. Use pacing measurements and your baseline to construct a map of your yard, using the graph paper on the back of this page. Place major features (pool, grass, trees, patio, etc.) on your map. Use pencil!
3. Remember: the number of paces you record, multiplied by the length of your pace (as calculated above) will give you the length of the space you paced.
4. To construct your map, try the following tips:
    a. Start with a freehand sketch to make the initial measurements, then transfer the information to the graph paper.
    b. Start at one corner of the baseline and work your way across the baseline.
    c. Measure the distance of an object from the baseline, walking on a perpendicular line.
    d. Record both the distance from the baseline, and the distance along the baseline.
    e. Transfer the map to graph paper.
        i. Locate the baseline on the graph paper
        ii. Compute the scale for the graph paper (how many grids = 1 meter?)
        iii. Place objects on the map by counting grid marks, using the freehand sketch and your measurements.