Name: _____ Date: _____ Period: _____

Physical Science
Average Speed, Distance & Acceleration Lab

Station #1:

Location: Small Playground

Pre Lab Discussion: Remember that Average speed is the total distance divided by the total time it took to travel that distance (S = D / T). In this portion of the lab you will travel certain distances at different speeds and make several calculations with this data. Also remember that the average speed is not necessarily the actual speed an object is traveling, it is merely the *average* speed.

Materials Required:

Tape measure
Stop watch
Data Sheet

Procedure:

1. Measure the distance around this course with the 100 ft tape measure provided. Record this distance in the data table below.
2. Assign two students as timers, they will measure the actual time and record this data in the table provided.
3. The student should then walk at a *normal speed* around the entire course. Both timers begin the stop watches.
4. As the student finishes the course, the timers will stop the watch and record the total time required to complete the course.
5. Next, have a student walk backwards through the course and record their total time and record this in the table.
6. Next, have the same student who walked the course repeat the course however, they must now stop at the middle orange cone and do 25 jumping jacks before they continue their walk – both ways!!
7. Record the total time in the space provided below
8. Repeat this procedure with another student; having them walk forward, backward , & w/ jumping jacks through the course
9. Calculate the average speed of each of these procedures

Name: _____ Date: _____ Period: _____

Walking Forward

Student walking	Total Distance Round to the nearest .1 feet	Timer 1 Round to the nearest .1 sec	Timer 2 Round to the nearest .1 sec	Average Time T1 + T2 / 2	Formula: S = D/T Write out the Problem	Average Speed (ft/sec)

Walking Backward

Student walking	Total Distance Round to the nearest .1 feet	Timer 1 Round to the nearest .1 sec	Timer 2 Round to the nearest .1 sec	Average Time T1 + T2 / 2	Formula: S = D/T Write out the Problem	Average Speed (ft/sec)

Walking Forward w/ Jumping Jacks

Student walking	Total Distance Round to the nearest .1 feet	Timer 1 Round to the nearest .1 sec	Timer 2 Round to the nearest .1 sec	Average Time T1 + T2 / 2	Formula: S = D/T Write out the Problem	Average Speed (ft/sec)

Station #2 Reaction Time – Stopping on a Dime

Follow the directions for Part 1(text pg 24). Record your data here

Student	Trial #	Distance (CM)	Reaction Time	Avg. Time	Student	Trial #	Distance (CM)	Reaction Time	Avg. Time
	1					1			
	2					2			
	3					3			
	1					1			
	2					2			
	3					3			