

Activity Two:

Testing Concrete Steps:

1. Samples should be cylindrical, specifically 6x12 inches or 4x8 inches
2. Record the mass of each sample
3. Cap samples with sulfur mortar or neoprene pad caps
 - a. Replace worn out caps
4. Remember to avoid drying out the cylinders before testing
5. Calculate cylinders' cross-sectional area
 - a. Measure the cylinder's diameter in two locations (perpendicular measurements)
 - b. Check diameters differences on the occasion that they differ by more than 2%, replace the sample
6. Center samples in compression machine, failure to do so will result in unusual fractures of samples
 - a. On the occasion that the sample has a common break pattern, record it's conical fracture
7. Calculate the strength concrete samples by dividing the maximum load at failure by the average cross-sectional area
8. Record the date of experimentation, sample identity, cylinder diameter, test age, maximum load applied, compressive strength, type of fracture, and defects.
9. Concrete should be tested in 2 different labs

Variables:

1. Cylinder1_mass
2. Cylinder1_deminsion
3. Cylinder1to2_distance
4. Cylinder1_compression
5. maximum_Load
6. Cylinder_crossSecA

Activity Three:

Variables:

time1, time2, velo1, pos_1, pos_2, racetrack_length, time_f, position_f

Formulas:

Position = velocity * time

Velocity = Distance/ time

Time= Distance/ Velocity