Resources Video 2

This activity picks up where the last question ended – in a discussion about average speed. The goal is to connect student conceptions of average speed to constant speed and for students to gain practice calculating average speeds in a variety of ways.

The rest of worksheet one builds the connection of average and constant speed. As students are working through this, the teacher should be sure to bring this out – average speed should be thought of as the constant speed the truck would need to travel to cover the same amount of distance in the same amount of time. This should not be an explanation given by the teacher but should come from the students. Students can often calculate average speed, but then cannot explain what the value they found means. It is important for students to begin to vocalize the meaning. The teacher should also begin making connections to the graph and how speed and average speed are represented in that representation.

After this activity has been completed, the PowerPoint should be utilized to give students other opportunities to calculate and interpret average speed. In slide 9, be careful of errors in calculating the average speed. Some students may not know how to approach the problem because they are not given any distances. Distances must be calculated using the formula. Another common error seen is that students will find the distance at 2,3,4 & 5 seconds, then add the distances and divide by 4 to find their average speed. The teacher should question students about this and try to bring out the error of the method and *why* you only need the distance at 2 and 5 seconds to calculate average speed. This method of calculation is different than calculating average scores on a test and it may be useful to have a specific discussion about this since this is the kind of 'average' students are most familiar with.