The Great Egg Drop of 2014

Use the following worksheet to help your grade! By completing this in a timely fashion it’ll help you keep that target you set for yourself earlier. Plus hand in the answers from the slides! Some rules are you can’ use a bottle or any hard surface (its like cheating) and bonus marks will be awarded for originality and creativity (this project isn’t about the egg its about so much more).

1. Explain, using principles of physics, why you designed your egg buster stopper 2000 the way you did?
2. In terms of projectiles (we quickly touched on this Friday) would it make a difference if I just drop your egg straight down or toss it away from the school?
3. Currently you don’t know the height of the school. Using reasonable estimation, and based on the science you’ve seen, how tall do you think the school is?
4. Using that estimation, calculate the vf of your egg just prior to hitting the ground.
5. Using the video we took calculate (using the scale of course) what the vf of your egg was.
6. By using the video calculate what the acceleration of the egg was (yes I’m aware gravity is -9.8 m/s2) but use science to prove that.
7. If the height of the school is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_(to be told later on) how far out are in your estimation and how far out are you in your calculation (what’s your uncertainty, to be taught this week).
8. Create a P/T and V/T graph of that what would look like.