Unit 4: Physics Video

- 1. What is the name of the video?
- 2. What does Mr. Jones teach?
- 3. What do they test at the Institute of Highway Safety research center?
- 4. Why did the dummy fall off the car?
- 5. Who introduced the concept and when?
- 6. What happens to the dummy's head when the car crashes into the wall?
- 7. How did Newton write the force equation?
- 8. What is momentum?
- 9. What is impulse?
- 10. Why does the sheet not break the egg? (Think of the force and time.)

11. How many g's can a fighter pilot withstand when accelerating?

12. What is the basis for designing automobile safety features (air bags or crumple zones)?	<u>,</u>
13. When did Newton and his buddies form the first international science club?	
14. What is conserved when the one of the metal balls is released to collide with tother metal balls?	he
15. Is momentum a scalar or a vector quantity?	
16. When is a greater weight primarily an advantage in car crashes?	
17. Name 3 forms of energy.	
18. What type of energy is found in car crashes?	
19. What do you have to manage to keep people safe during a car crash?	
20. What part of the car must be kept intact?	
21. Why is it harder to engineer safety components for side impacts?	