Speed is dangerous and expensive

Students frequently ask their teachers, “Will this be on the test?”

Some things play a more important role in life than a test score: understanding things can determine who will live and who will die?

Speeding and time management.

If you travel at the speed limit in your vehicle you will travel the distance to your destination,

d = velocity x time

So if you are traveling 2 miles at the speed limit rate of 35 miles/hour, it will take you 2/35 of an hour or 3.43 minutes. If you are insane and decide to drive the same road at 70 miles/hour (endangering yourself and anyone near the roadway you would make the trip in 1.71 minutes. Are you really willing to risk death, destroying your vehicle, and losing the right to drive over 1.71 minutes of additional travel time? Waking up and leaving your house 1.71 minutes earlier provides the same benefit without any of the additional risk. Speeding provides barely any benefit unless you are traveling very long distances.

Speed and energy.

The kinetic energy of a vehicle is calculated $E = \frac{1}{2} mv^2$. So if you double the velocity of a vehicle, there will be four times as much energy of motion. If you triple the velocity of a vehicle, it will have 9 times the energy of motion. Think about falling down. If you are walking and fall, you can usually get up with only your pride injured. If you are running, clothing damage and skin scraping are likely, If you fall off a bike or skateboard, bones may break. If you are in a vehicular accident and not seat belted and air bag protected, you are likely to go through a windshield or receive severe internal injuries. If you are traveling in a normal vehicle and are involved in a collision at near 100 mile/hour you are very likely to die from your injuries. Since the energy your body will absorb increases as the square of your velocity, high velocity is very dangerous. Energy also affects the braking distance of the vehicle. When you are speeding, it is much more difficult to stop or avoid obstacles in your path. This can translate into fender benders, collisions with deer, winding up with extensive damage when your car slides into a deep ditch, or killing someone who runs out in front of you. This energy of motion has to come from somewhere. That means speeding uses more gasoline or drains your battery earlier in an electric vehicle.

For more on the physics of driving, click here