

Rock-it Science Observations For Winter Lessons 2010

Demolition Derby

The students were given a lightweight frame with four wheels. Their job was to create a bumper so that it could crash into a wall at a reasonably high speed (driven by an airplane engine and propeller) and not get broken. Later, they would put an egg in the car to see if it would survive. The lightest design would get the most points. Surviving eggs were padded, weighed, and taken outside for the toss-test.

Students may have noticed:

- The cars with smaller bumpers went faster and hit harder.
- The frame part breaks first and the wheels next.
- Blocking the air flow worked very well.
- Absorbing energy through a long weaker structure made less impact noise.
- The louder the impact, the more damage was done.