

**Junk Jalopy Team Mission:**

**Build a vehicle out of junk that will travel at least 50 cm on its own and demonstrate Newton's laws of motion.**

**Mission Rules:**

1. The team may use only materials from the "junk" list or materials from the "premium" list.
2. The team members must supply all of the "junk". Your team's junk should be stored in a plastic bag that is labeled with your hour and names on the green counter. You may swap or loan your "junk" to other teams.
3. "Premium" list supplies must be requested and will cost the team points. The number of premium points used will be subtracted from the distance your car travels. For example, if your team purchases 5 premium supplies, your team's car must travel 55 cm.
4. Your team will have 4 days to design and build your car.
5. Your team will prepare a drawn diagram of the design on chart paper with a list of materials used (junk and premium). The chart should also include a brief explanation on how the vehicle demonstrates each of Newton's laws. Be sure to include pertinent vocabulary. The chart will be due on exhibition day.
6. The team will demonstrate the vehicle on exhibition day and the distance traveled will be measured by an official. Your team will be given three trials to achieve the required distance.

**Junk Jalopy Specs**

1. only supplies on the list may be used for construction
2. premium supplies will cost points deducted from the distance
3. must move on its own (not in response to push or pull)
4. must have at least three wheels
5. must move a distance of at least 50 cm
6. must fit inside the "spec" box; cannot be larger