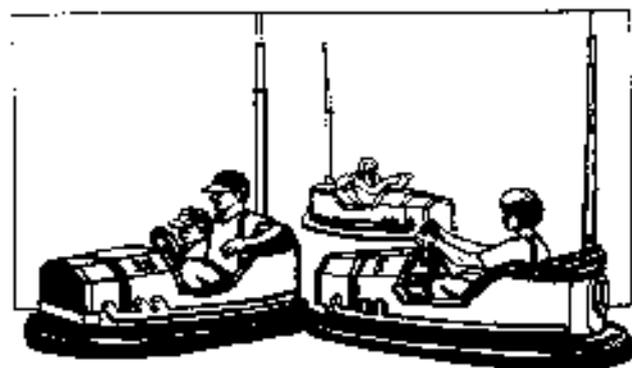


# Rue Le Dodge



1. Do you smell anything strange inside the Rue Le Dodge pavilion when the cars are operating? Can you determine what the source of this smell is?
2. Each bumper car has a long pole that extends to the ceiling of the pavilion. What is this pole for? How do you know?
3. Describe the complete electrical circuit that supplies electrical energy to one of the cars.
4. In a head on crash with another car or the wall, which way is your body thrown?
5. When you are hit in the rear by another car, which way is your body thrown?
6. When you collide with another car, which type of collision (rear end, front end, or from the side) shakes you up the most? Why do you think this is so?
7. When you collide with another car, does the car that hits you exert a force on you? How do you know?
8. During a collision, is kinetic energy conserved. Explain your answer.
9. Is the total mechanical energy (K.E. + P.E.) of the bumper cars conserved? Explain your answer.
10. How does the conservation of energy apply to the Rue Le Dodge bumper cars?
11. Would the bumper car collisions be classified as elastic or inelastic?
12. Is the momentum of each bumper car conserved in a collision? Explain your answer.
13. Is the momentum of all cars involved in a collision conserved? Explain your answer.
14. Why do the bumper cars have rubber bumpers? Be sure your answer is "timely"!