What Makes A Car?

1. Body

   Something to attach everything to. It can be wood, metal, plastic, or anything that is strong, light, and easy to work with. Examples are boxes, bottles, wood blocks, wire or pipe frames, styrafoam, etc. What do you think is good?

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2. Wheels

   Anything round; bottles, jar or can lids, coins, toy car wheels. It's important that it is strong enough, and rolls good.What will you use? _____

3. Motor

   Makes the car move. We will supply motors, but you can use your own, too, from old toys and such (maybe yours are better). You can use more than one motor -- is that better or worse?

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4. Drive System

   Connects the motor to the wheels. On a bike, it would be a chain. Full-size cars use gears. You can also use a belt (like a rubber band). Another way is a friction drive (the motor axle rubs on the wheel to make it turn). You can even put the wheel directly on the motor (direct drive). What would you like to try? _____

5. Battery

   It supplies the energy to make the car move. We will supply AA batteries, but you can try other types to see what happens. Batteries are heavy, so you need to mount them securely. But, they need to be replaced, too. How will you mount them?

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6. Wiring

   This is how energy gets from the battery to the motor. It needs to be a complete loop, from battery to motor and back again to the battery. You may also want switches to turn the motor on and off, make it run faster or slower, or forward and reverse. The more motors and batteries, and more speeds, the more complicated the wiring gets. How many switches do you think you'll need? _____

7. Seat

   The model cars don't need a seat, but the big cars do! Your model should show where the seat will be. What could you use as a seat?

   _____

8. Steering

   Even the model cars need steering, or they will go around in circles and not where you want them to go. You have to make at least one wheel steerable. How many wheels will your car have, and which ones will do the steering?

   _____

9. Brakes

   Every car needs brakes! But on your small car, you just need to plan for how you will stop it. Examples are bicycle brakes, a hinged stick that rubs on a tire or the ground, or an anchor and a rope. What could you use for brakes? _____

10. What else?

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