TECHNOLOGY EDUCATION BAYFIELD SCHOOL

NAME: _____

DATE: _____

ELECTRATHON GENERAL SAFETY REVIEW DOCUMENT

Directions: Answer each question to the best of your ability. Multi-sentence answers are par for the course. One word or vague answers, or blanks, will have to be redone until they are correct! Use words and/or drawings to explain your answers. BE SAFE!

Safety Review Electrathon Supplement Section 1: Electrathon (Batteries/Electrical)

1. Explain what is dangerous about electric vehicle batteries?

2. When removing or attaching the connections off the posts of the batteries, what procedure should you follow? Which post (neg. or pos.) should you disconnect first?

3. What would happen if you hook up the controller reverse polarity (pos to neg.)?

4. What would happen if you hook up the motor reverse polarity (pos to neg.)?

5. What type of safety equipment should you wear when servicing, installing, or metering batteries?

6. What can you use to neutralize battery acid in case of a spill?

7. What should you do if you get battery acid spilled on your skin or clothing?

8. What should you do if you get battery acid in your eyes?

9. When hooking up batteries to be changed, what should you pay attention to? Where should they be located when they are charged?

10. What are the safety rules for batteries as specified by the Wisconsin Electrathon?

11. What would happen to a motor if you "gunned it" with no load (free spin)?

(Safety Review Electrathon Supplement) Section 2: Driving an Electrathon Vehicle

1. What requirements must a driver meet before they are eligible to drive an Electrathon Racer?

2. Why shouldn't students who are not in the Electrathon Program drive the Electrathon racer?

3. The first time you drive an Electrathon vehicle, how should you drive?

4. Before driving the Electrathon Racer, what must you have turned in to your supervisor?

5. What safety equipment must you always wear when driving the electric vehicle?

6. If you hit another object or vehicle while driving the Electrathon racer, whose fault is it?

7. What is the most efficient and safe manner in which to drive the electric vehicle?

8. Before testing the electric vehicle in the parking lot, what conditions must be met?

9. What would be a safe way to drive an Electrathon vehicle in a parade?

10. List five reasons why an Electrathon vehicle may be more dangerous than a full size automobile:



11. List five safety requirements for the driver of an Electrathon racer (as specified by the WE):



12. Why shouldn't students who are not in the Bayfield Electrathon Program drive the Electrathon racer?

13. During testing, a driver notes that the vehicle has good pick up and lots of top end speed. Why is this NOT a good indication of how well it will perform in an hour long endurance competition?

Safety Review Electrathon Supplement Section 3: Electrathon Vehicles

1. List five safety requirements for Electrathon vehicles (as specified by the WE):

а	
b	
c	
d	
е	

2. Why can there not be any opening larger than 6" below the drivers shoulder in the Electrathon vehicles frame?

3. Why does the front of the frame have to have an 8" square framing member?

4. What is the safety requirement for the throttle?

5. Can a driver take their hands off the steering wheel/lever to apply the brake?

6. What are the requirements for roll bar bracing?

7. What is a pinch point on an Electrathon vehicle? What can be done to protect a worker from it? What does the WE rules state on "pinch-point"?

8. What are the requirements for guarding a chain drive system?

9. Draw an Electrathon safety logo or slogan that you think would help other students on the team become safer lab workers.