Human Powered Machines

Name: _____ Block: _____ Date: _____

Day 1 - Individual Assignment
Individually you will have time in class to begin researching on some specific topics that will relate to your project. Each of these topics should include notes and drawings for how you may relate these topics to helping to build your human powered vehicle. You may bring different skills to your design compared to other group members but you will need to all put in effort in order to complete this year's MAJOR PROJECT.

Every day you will have some more research topics to look into and answer questions. The purpose of these questions is to get you ready for designing your vehicle before you build it! Prepare, Prepare, Prepare!

Today's research topics: To be written on separate lined paper

1. Adapting and using Bicycle gearing for other purposes (easy to pedal gearing vs hard to pedal but more long term speed)
2. Weight distribution with multiple people (Quadracycles, etc) vs single riders for human powered machines.
3. Steering systems for different types of vehicles. How do these different steering systems work? What principles are required in order for these systems to work for their intended use?
    a. Horse and buggy/carriage
    b. Go-karts. What is **Ackermann Steering Geometry?**
    c. Kids pedal-karts
    d. Scooters
4. Live axle vs single drive go-karts. What is the difference and why might you choose one or the other?

More information and requirements for this project can be found on the teacher website:
https://holbrooktech.weebly.com/04-human-powered-vehicle.html