SUPER ENERGY CO.

"We FUEL your Future!"

Super Energy Co. is proud to announce that it has discovered a new source of energy! Located at the very top of Mt. Escritorio, this energy source could be the answer to our reliance on fossil fuels and stop Global Warming in its tracks!

There are a few problems, however.

Problem 1: The energy source is fragile. While mined in a round shape, one cannot simply drop it down the mountain and into the processing plant.

Problem 2: Super Energy Co.'s Board of Directors are very tight with their wallets, they don't want to invest in an energy source that is more expensive than the oil and gas that we currently put into our cars. So all transportation methods have to be cost effective.

Problem 3: Super Energy Co. has an agreement with environmental agencies that the methods in which the resource is harvested will do as little damage to the earth as possible. They will be sending inspectors periodically to ensure that the mining structures are earth-friendly.

Problem 4: Super Energy Co. found the resource, but they don't know how to design a vehicle that will run off of this resource.

Problem 5: When facing impact, the resource has a tendency to explode. Which means that any extreme impact, like a car crash or being transported too quickly down the mountain, could be much more devastating than with a standard car.

<u>In a small group (4-5 people maximum):</u>

- **A)** Research structures built for stability.
- **B)** Using your research to guide you, design a method to get as much of the material from the top of Mt. Escritorio, to the factory that is 10 miles away. (1 mile = 1 foot for your model)
- **C)** Construct and test a prototype of your design. Success will depend on how many of these problems your prototype can solve, and the amount of materials you can deliver in a to-be-determined amount of time.
- **D)** Use materials wisely, as the more materials used, the less likely SuperEnergy Co.'s Board of Directors will use your design!
- **E)** Come up with a marketing strategy, cost/benefit analysis, or other report on how your design is the one that the Board of Directors should use.

Note-Taking Sheet

Your Name:

Members in your group:

Research Notes:

Your design will need to go from the top of a desk or tall table, to the “factory” 10 feet away. The materials you will be able to use for the transport will include:

- paper plates,
- paper trays,
- painters tape,
- foam tubing,
- string,
- popsicle sticks,
- white glue,
- and any recycled boxes or cardboard that can be easily salvaged by the time building starts.

For groups interested in tackling the Car design problem, other materials are available upon request.

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Official Design