Energy Conversion Contraption

The Basics

- As a class, you must decide on the simple task that you would like your contraption to do
- You will break up into teams of 2 or 3 (no less, no more)
- You must assign jobs to each person in your team (everyone must have at least one job).

The jobs are:

⇒ **Draftsman**- This person is in charge of producing a labeled sketch of the initial and final plans for your section of the contraption (2 sketches in total)
⇒ **Supply Manager**- This person is in charge of making sure that all necessary materials are obtained (NOTE: This person does not provide all of the materials, but makes sure that every member of the group knows what materials they are responsible for)
⇒ **Communications**- This person is in charge of talking with the Communications person in the other groups to verify compatibility of parts. This person is also responsible for bringing any important information to the attention of the teacher.
⇒ **Scribe**- This person is in charge of all written information that is to be handed in
⇒ **Test Engineer**- This person is responsible for the testing of your section of the contraption
⇒ **Chief Engineer**- This person is responsible for keeping the team running smoothly and making sure that all necessary tasks have been completed in a timely manner

- The entire contraption must have at least 15 steps
- Each team is responsible for at least 3 steps in the contraption
- Each team’s section must demonstrate at least two different types of energy conversions
- The following types of energy must be used **at least once** in the contraption:
  - Chemical Energy
  - Electrical Energy
  - Heat Energy
  - Light Energy
  - Mechanical Energy
  - Sound Energy
  - Elastic Potential Energy
  - Gravitational Potential Energy

- The above energies must be used to do work in the contraption
- You will be limited to the surface area of two tables as a work space
- You can temporarily attach objects to the table or the ceiling, provided that no damage is done to the table or the ceiling
- Limited materials will be available. Any materials that are brought in from home will be returned upon completion of the contraption