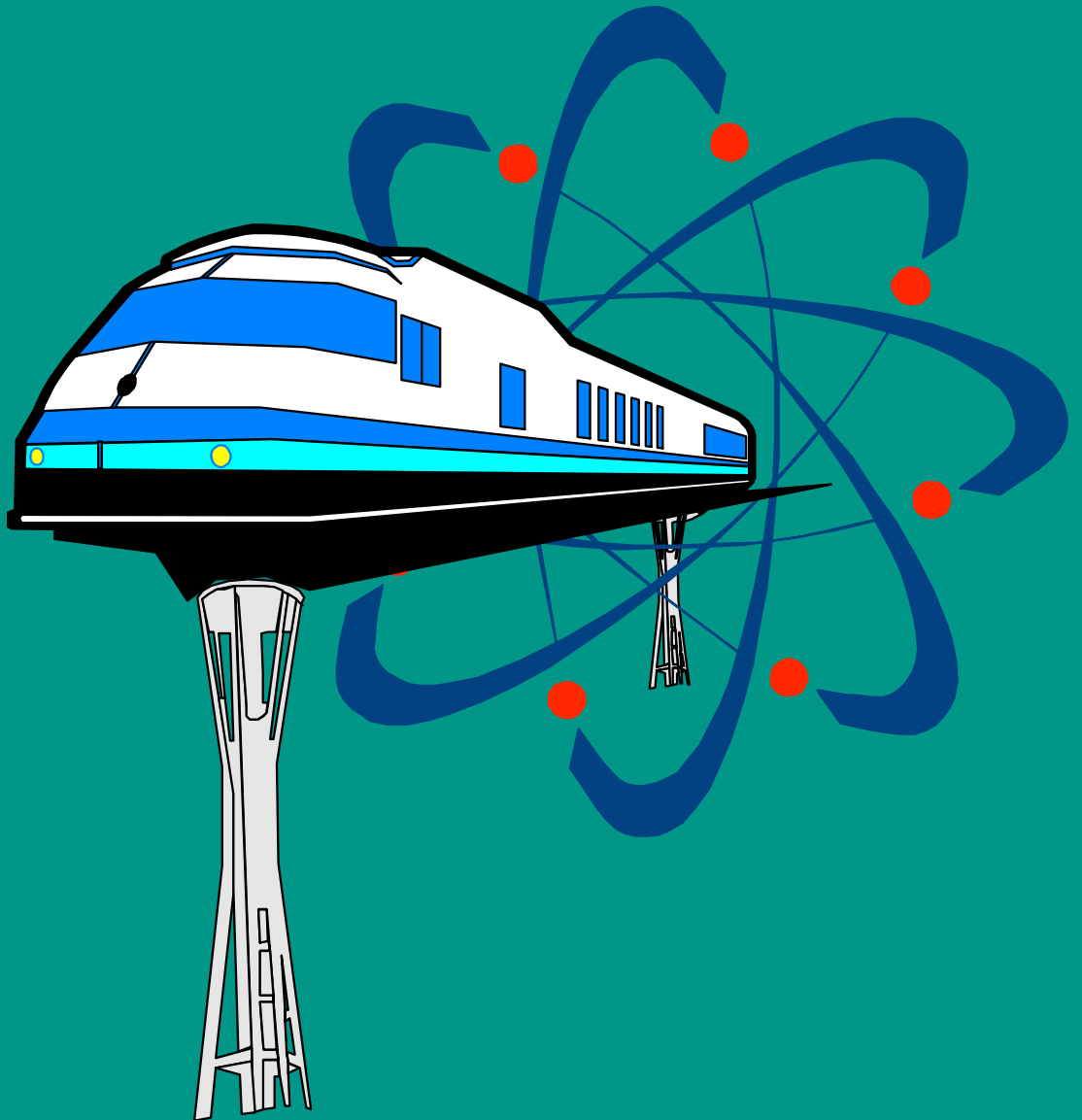


MAGNETIC LEVITATION



MAGNETIC LEVITATION

The object of this TLA is to design and build a Magnetic Levitation vehicle that will travel down eight feet of track in the shortest period of time, powered only by wind.

The catch is, you are only allowed to use Post-Consumer materials in the construction of your racer.

MAGNETIC LEVITATION

What does Post-Consumer mean?

- *Something that will be recycled or thrown away once it has been used by consumers.*

MAGNETIC LEVITATION

*Step one in the design process
is to:?*

- *Identify the need or the
problem*
- ***Design and build a
Magnetic Levitation
vehicle that will travel
down eight feet of
track in the shortest
period of time***

MAGNETIC LEVITATION

*Step two in the design process
is to:?*

- *Research the need or the
problem*
- *Which you all have already
started doing*

MAGNETIC LEVITATION

*Step three in the design
process is to:?*

- *Develop possible design solutions*
- *Sketch 2 possible solutions for a Mag Lev Racer. Make sure you draw a front and a side view for each design.*

MAGNETIC LEVITATION

Your homework tonight is to go home and gather the materials you will need to construct your racer. Now that you have an idea of what your racer looks like you should have an idea of what you need for materials.

Try to find materials with different properties so they can be used for different parts of the racer.

MAGNETIC LEVITATION

What do we mean when we say materials all have different properties?

*Material Properties are the physical characteristics of how the material is made up.
For instance:*

- Weight*
- Hardness*
- Flexibility*
- Porous or non porous*
- color*
- transparent*

MAGNETIC LEVITATION

*What kinds of materials would
be good to collect for the
construction of your racer?
(Remember the materials need
to be LIGHT)*

Note cards

Toothpicks

Sandwich bags

Tissue paper

Tin foil

News Paper

straws

popsicle sticks

paper bags

cardboard

drink stirrers

styrofoam

MAGNETIC LEVITATION

Pretend I went home and collected the following Post-Consumer materials. What would be the best use of these materials in the construction of our racer?

- *Straws*
- *Plastic Wrap*
- *Styrofoam*
- *Tinfoil*
- *Skewers*
- *cardboard*

MAGNETIC LEVITATION

*Fill in Step 1 now on your
Design Process worksheet.*

- ***Design and build a
Magnetic Levitation
vehicle that will travel
down eight feet of
track in the shortest
period of time***