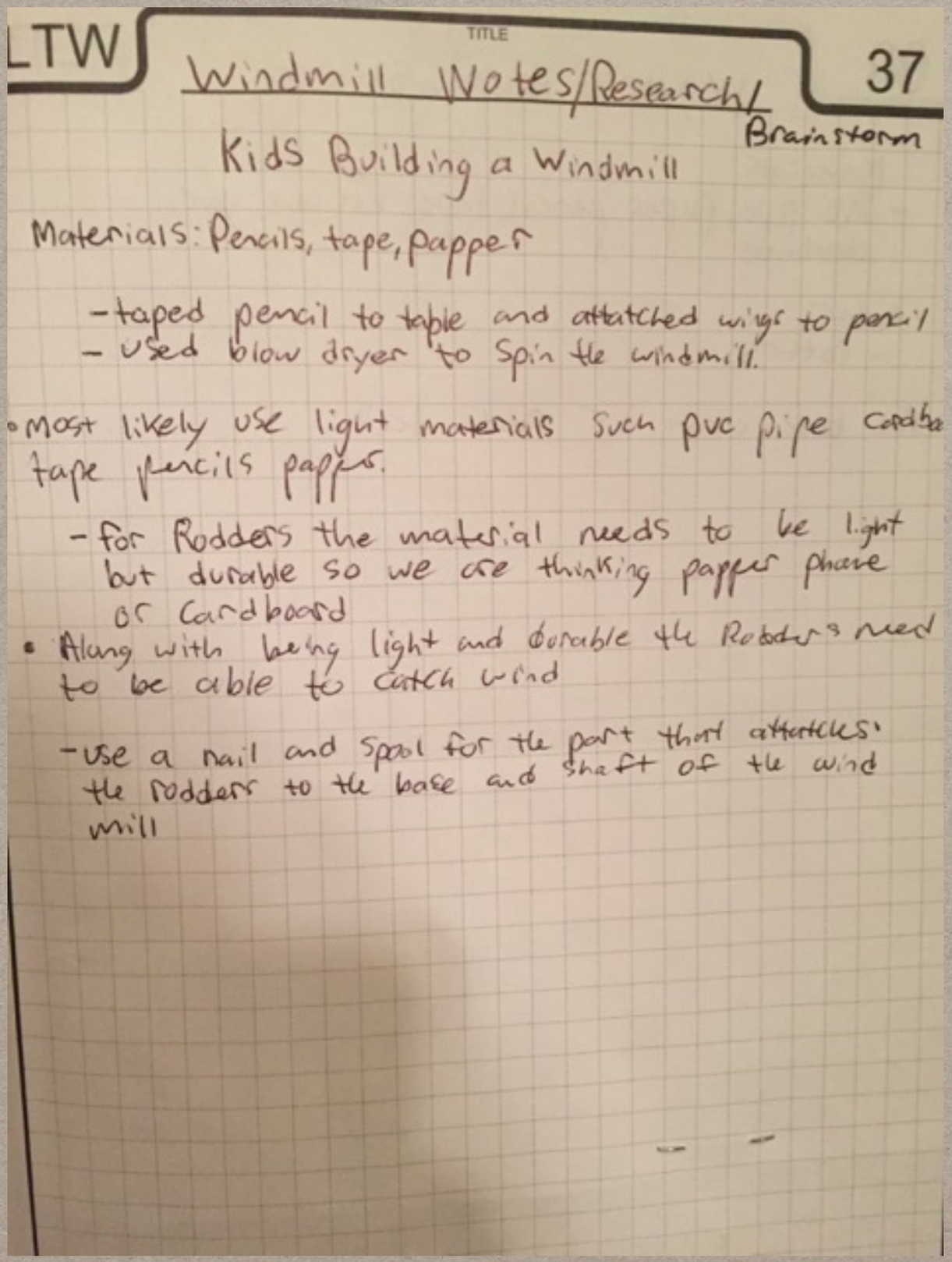
WIND-MILL TECHNICAL PRESS.

RONAN, DAVID, JONATHAN, JADEN

Brainstorming & Research


LTW

TITLE

Windmill Notes/Research/Brainstorm

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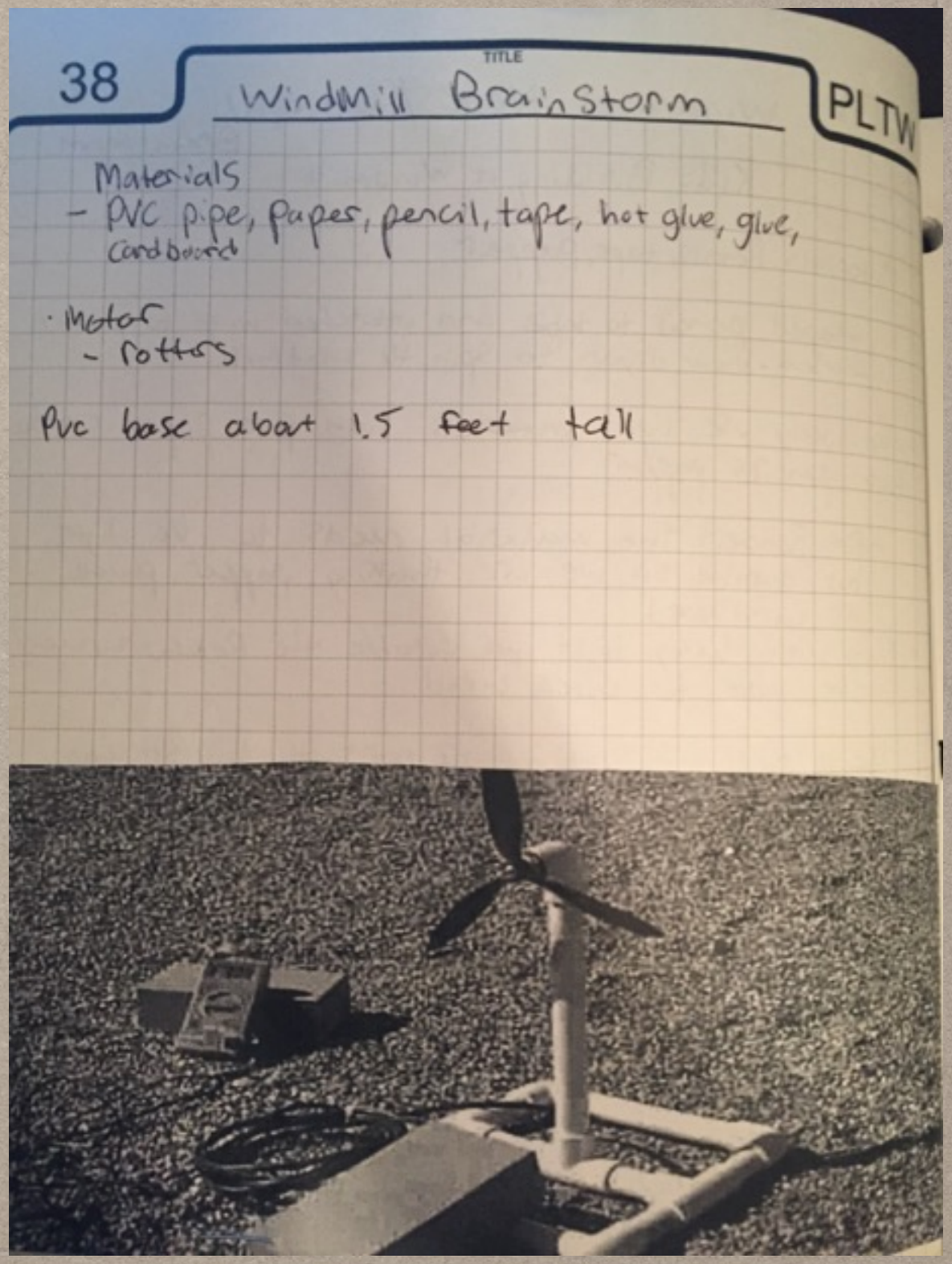
Kids Building a Windmill

Materials: Pencils, tape, papper

- taped pencil to table and attatched wire to pencil
- used blow dryer to spin the windmill.

- most likely use light materials such pvc pipe cardboard tape pencils papper.
  - for Rodders the material needs to be light but durable so we are thinking papper phone or cardboard
- Along with being light and durable the Rodders need to be able to catch wind
  - use a nail and spool for the part that attatches the rodders to the base and shaft of the wind mill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TITLE

Windmill Brainstorm

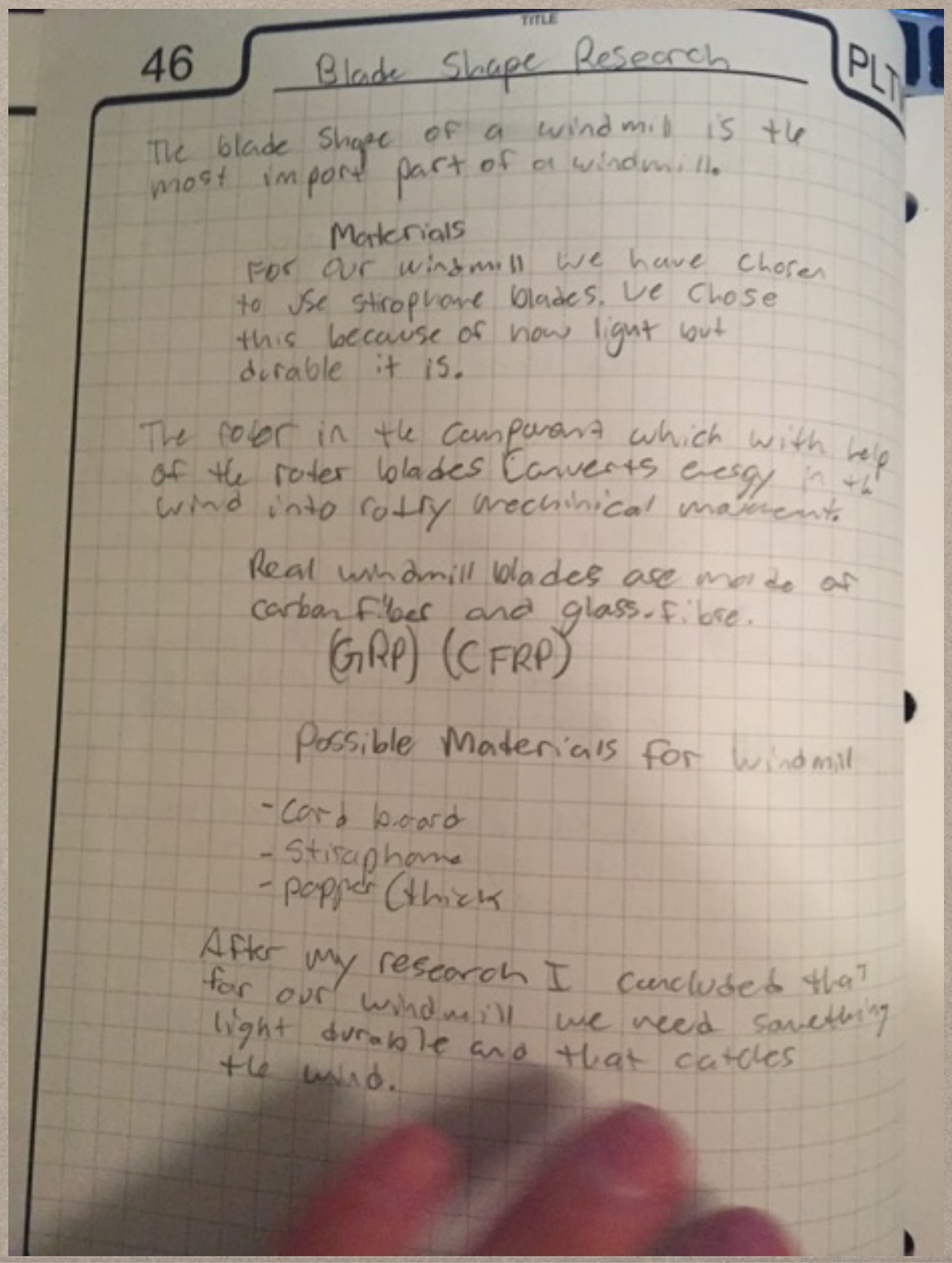
PLTW

Materials
- PVC pipe, papes, pencil, tape, hot glue, glue, cardboard

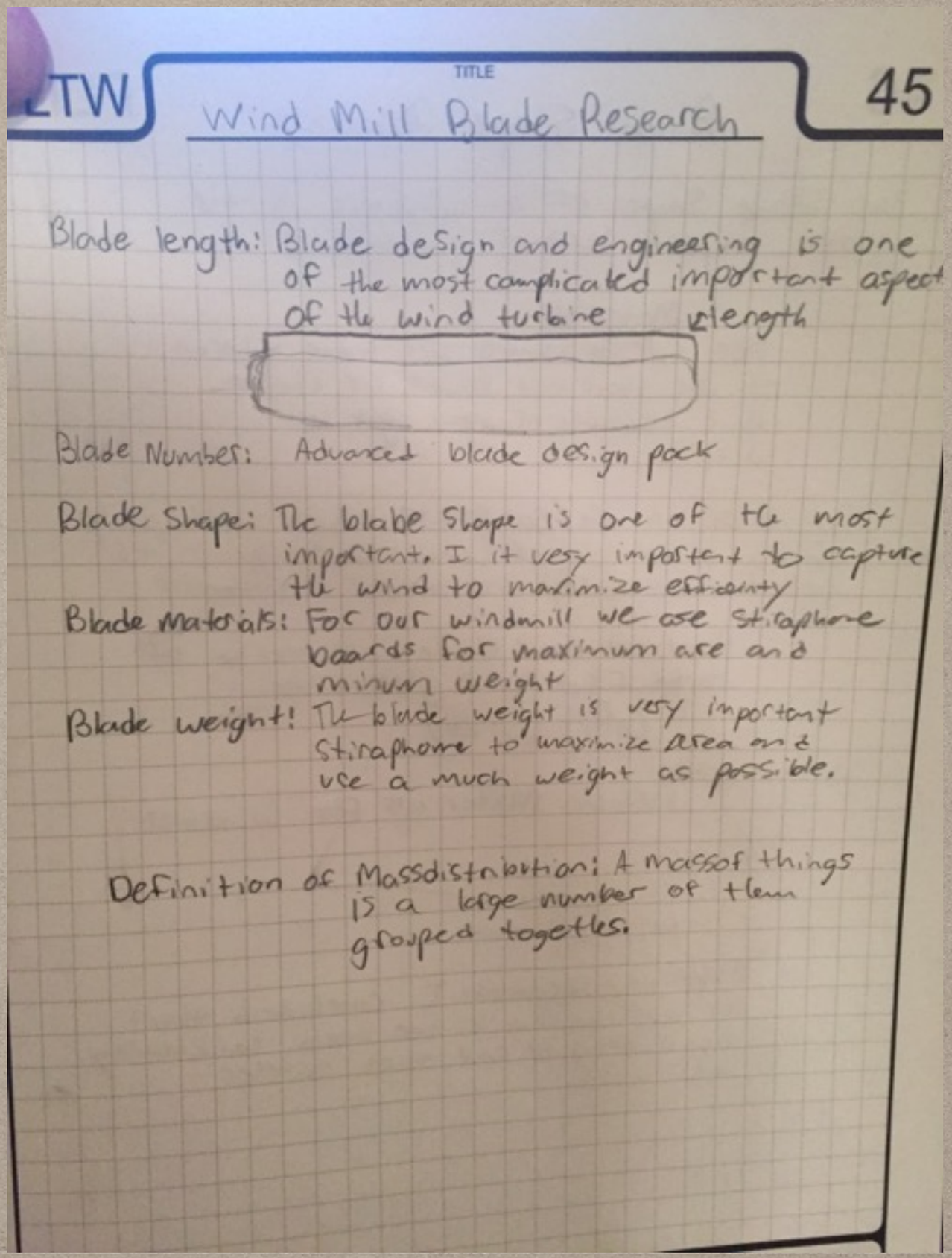
- motor
  - rotters

Pvc base about 1.5 ~~feet~~ tall

Blade Shape Research



Wind-Mill Blade Research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TITLE

Wind Mill Blade Research

45

Blade length: Blade design and engineering is one of the most complicated important aspect of the wind turbine ↕length

Blade Number: Advanced blade design pack

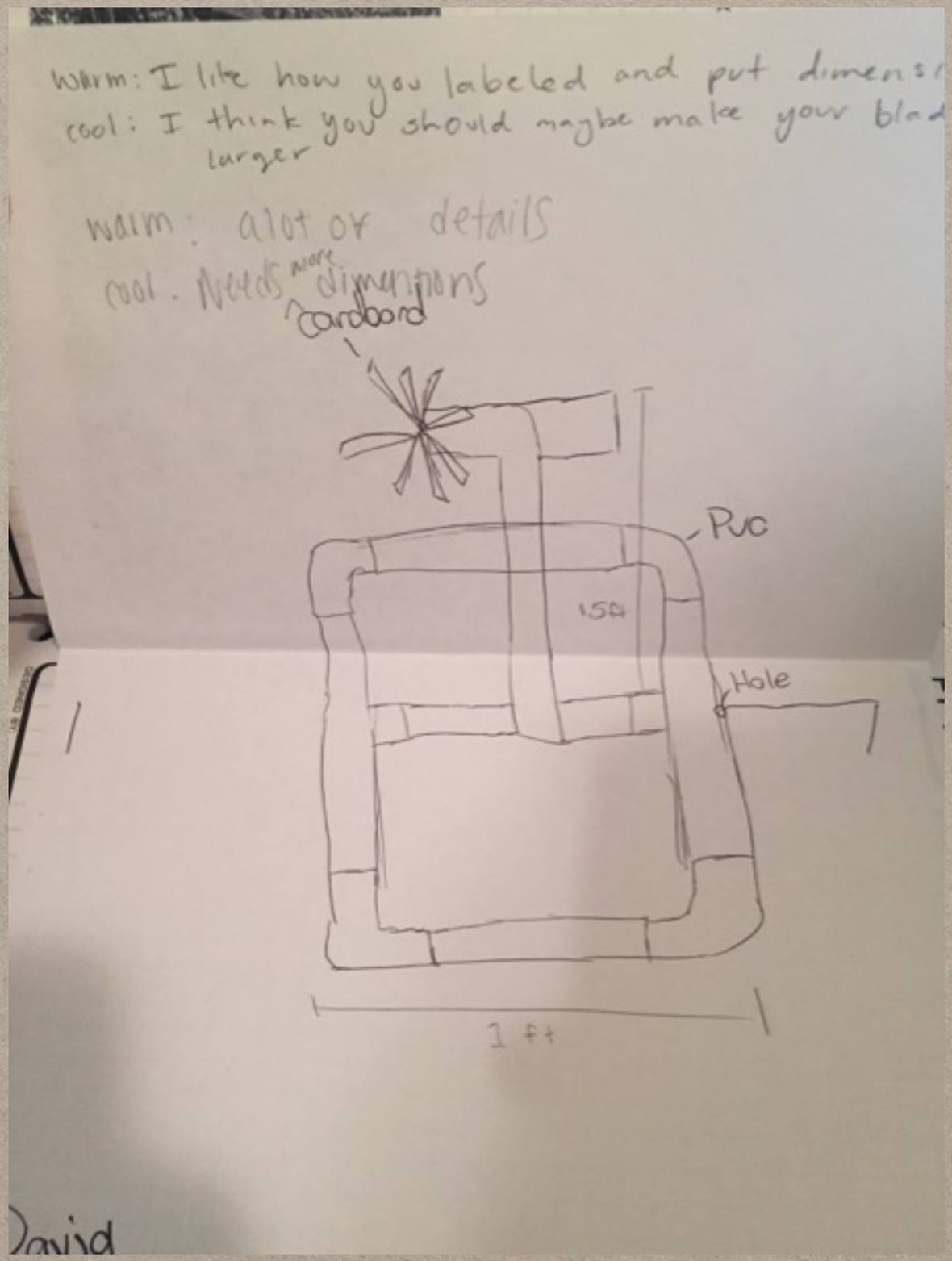
Blade Shape: The blabe Shape is one of tG most important. I it very important to capture tG wind to maximize efficiency

Blade materials: For our windmill we ose Stiaphone baards for maximum are and minum weight

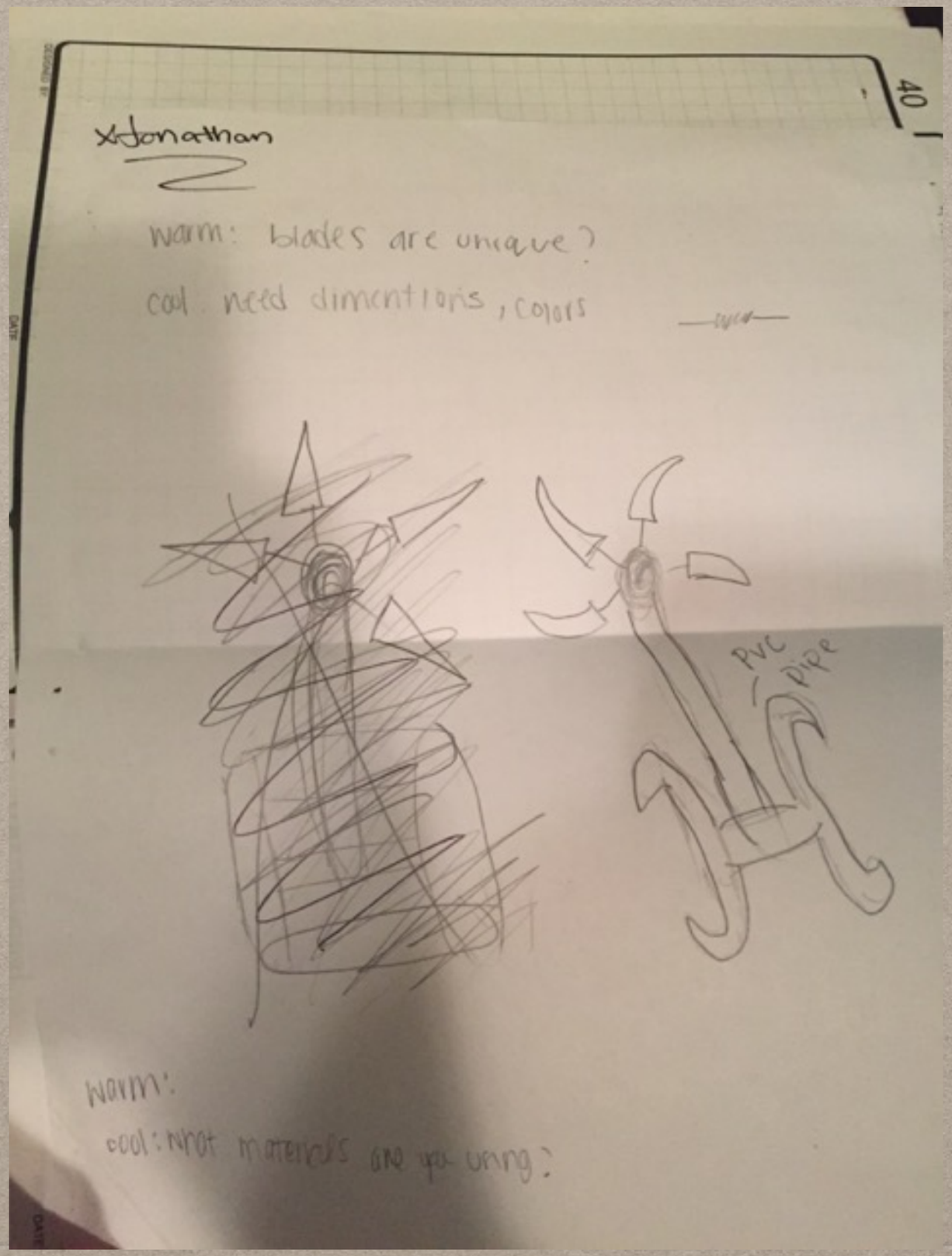
Blade weight: The blade weight is very important Stiraphone to maximize area and use a much weight as possible.

Definition of Massdistribution: A massof things is a large number of tlem grouped togetles.

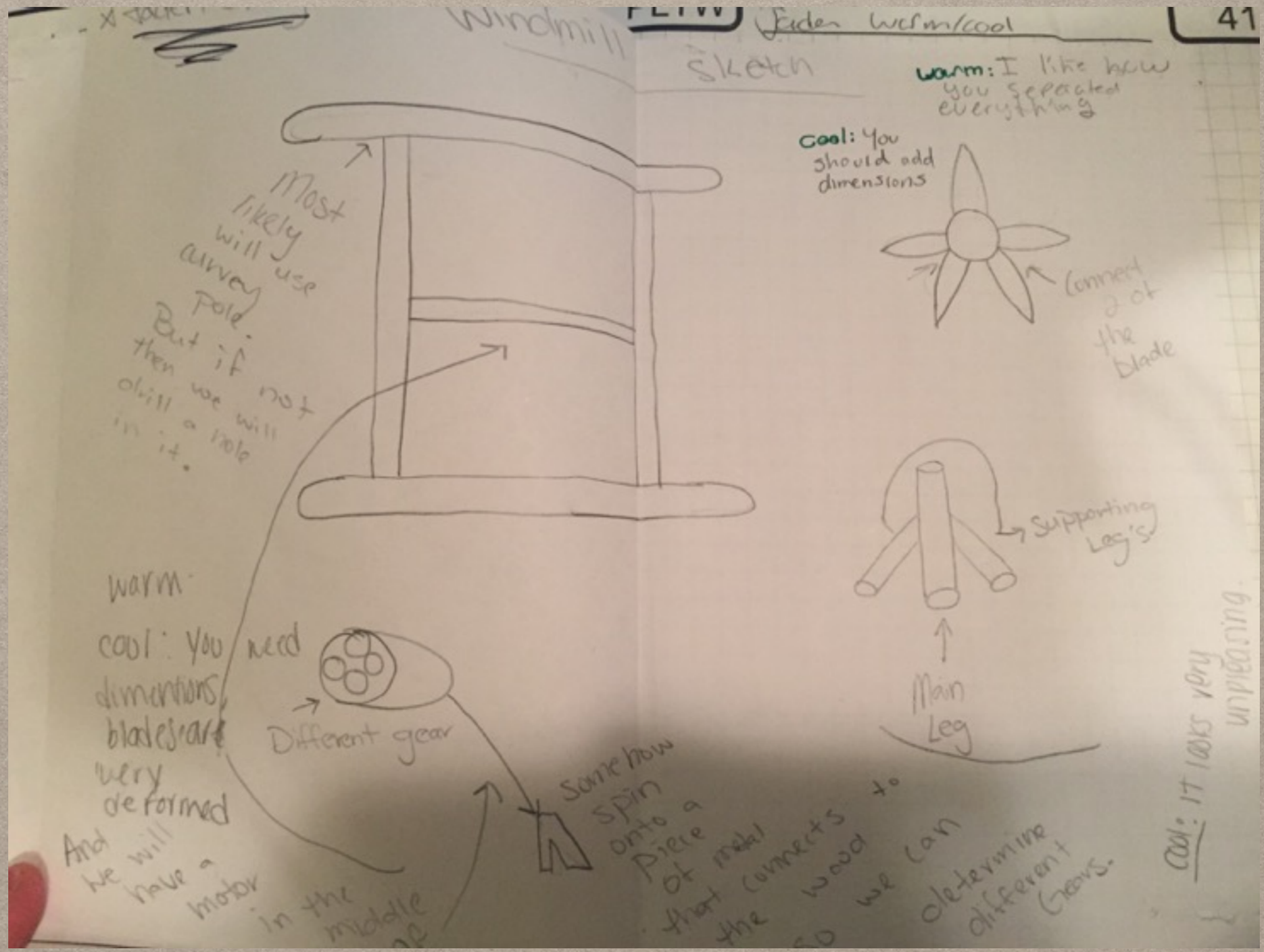
David's Technical Sketch



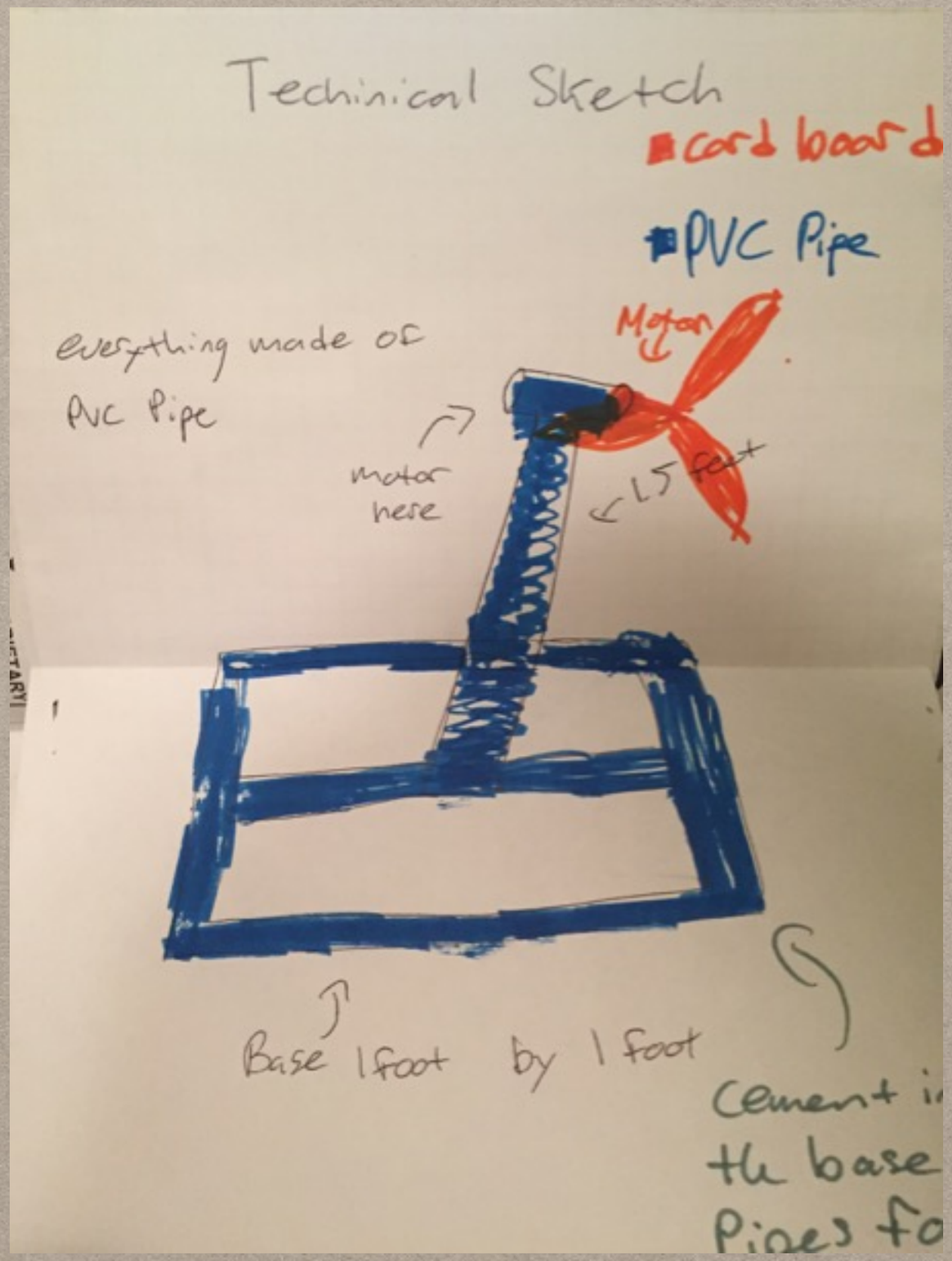
Jonathan's Technical Sketch



Jaden's Technical Sketch



Ronan's Technical Sketch



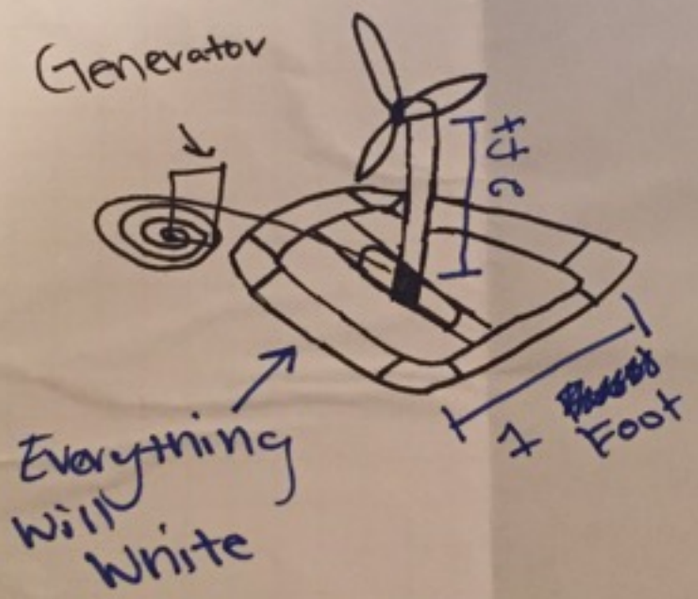
Decision Matrix

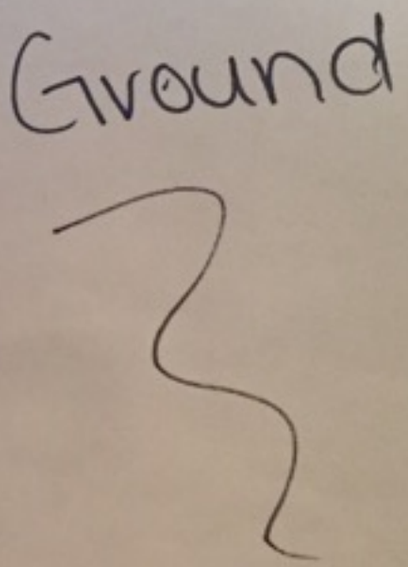
	Creativity	Sturdiness	Easy 2 Wire	Easy 2 Put 2gether	
PVC	3	4	4	4	15
Foam	3	2	3	3	11
Card board	3	3	3	3	12

Final Sketch / Final Idea

Materials List:

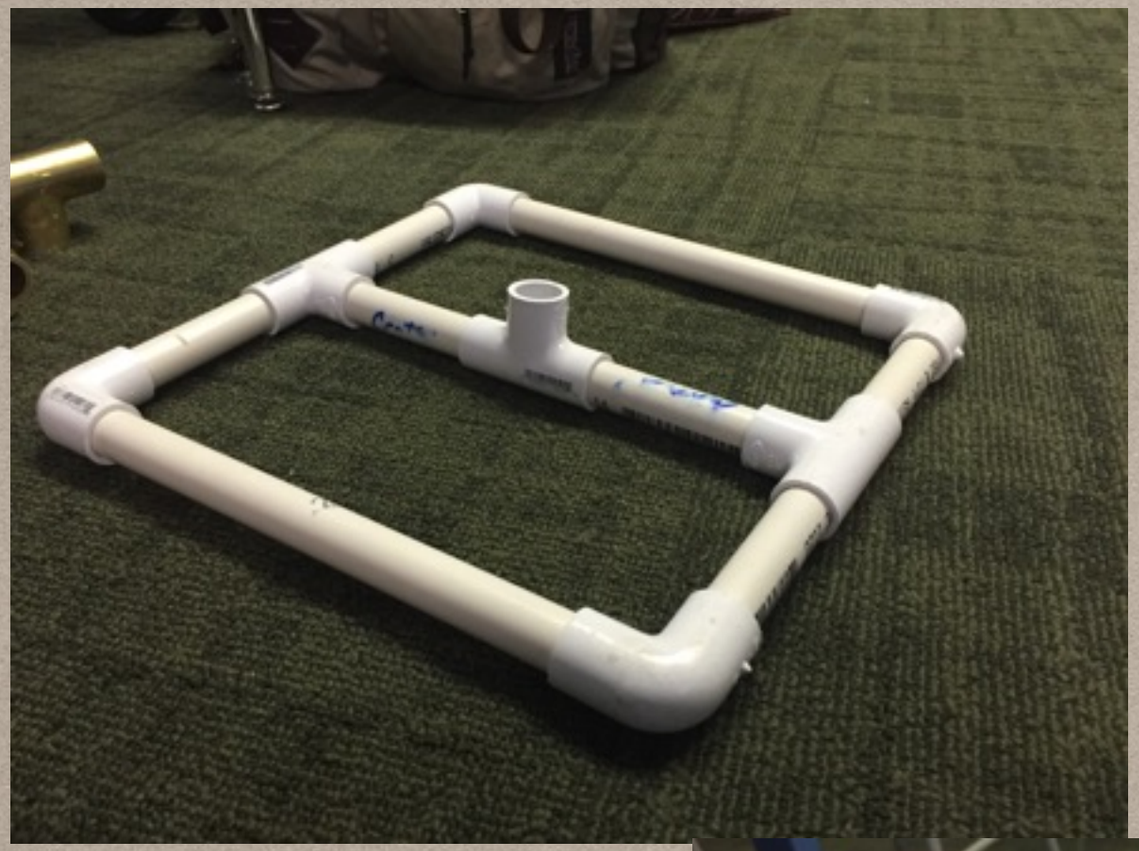
- PVC
- Cement
- PVC Glue
- Blades
- Everything Else Provided

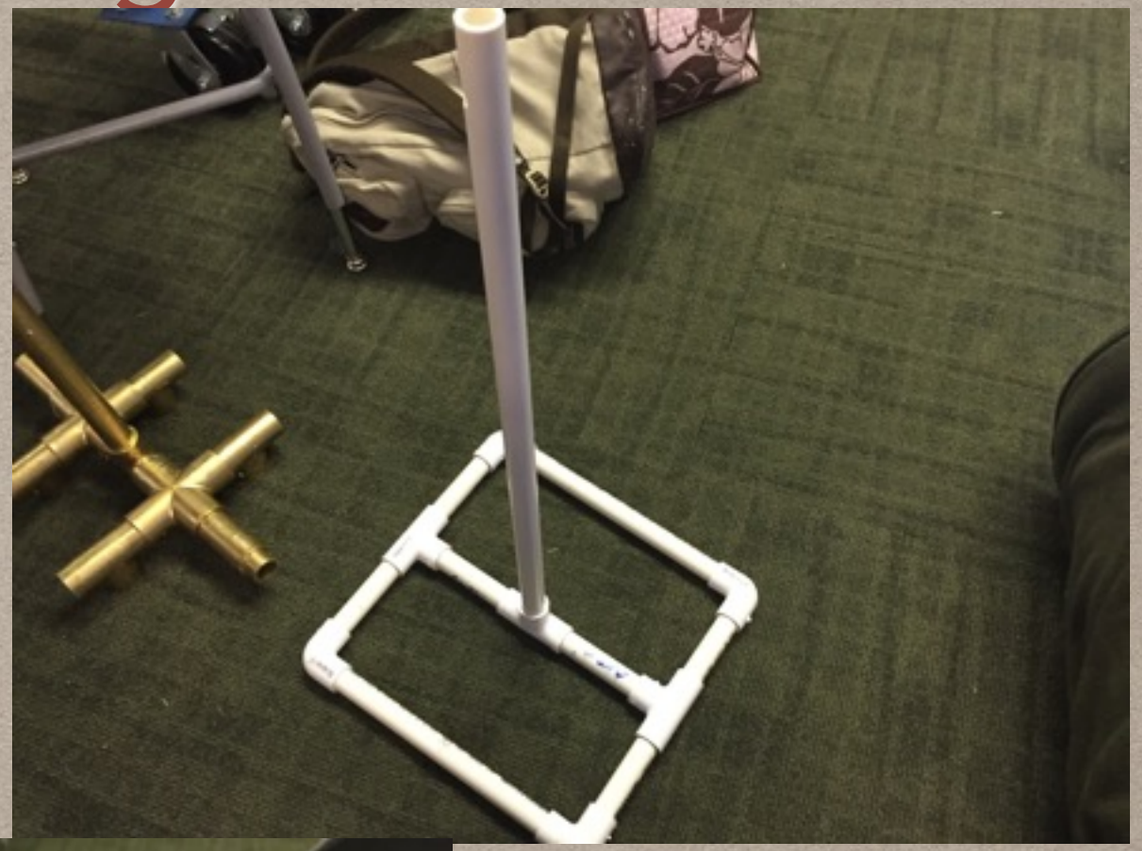




Jaden, David, Jonathan, Ronan

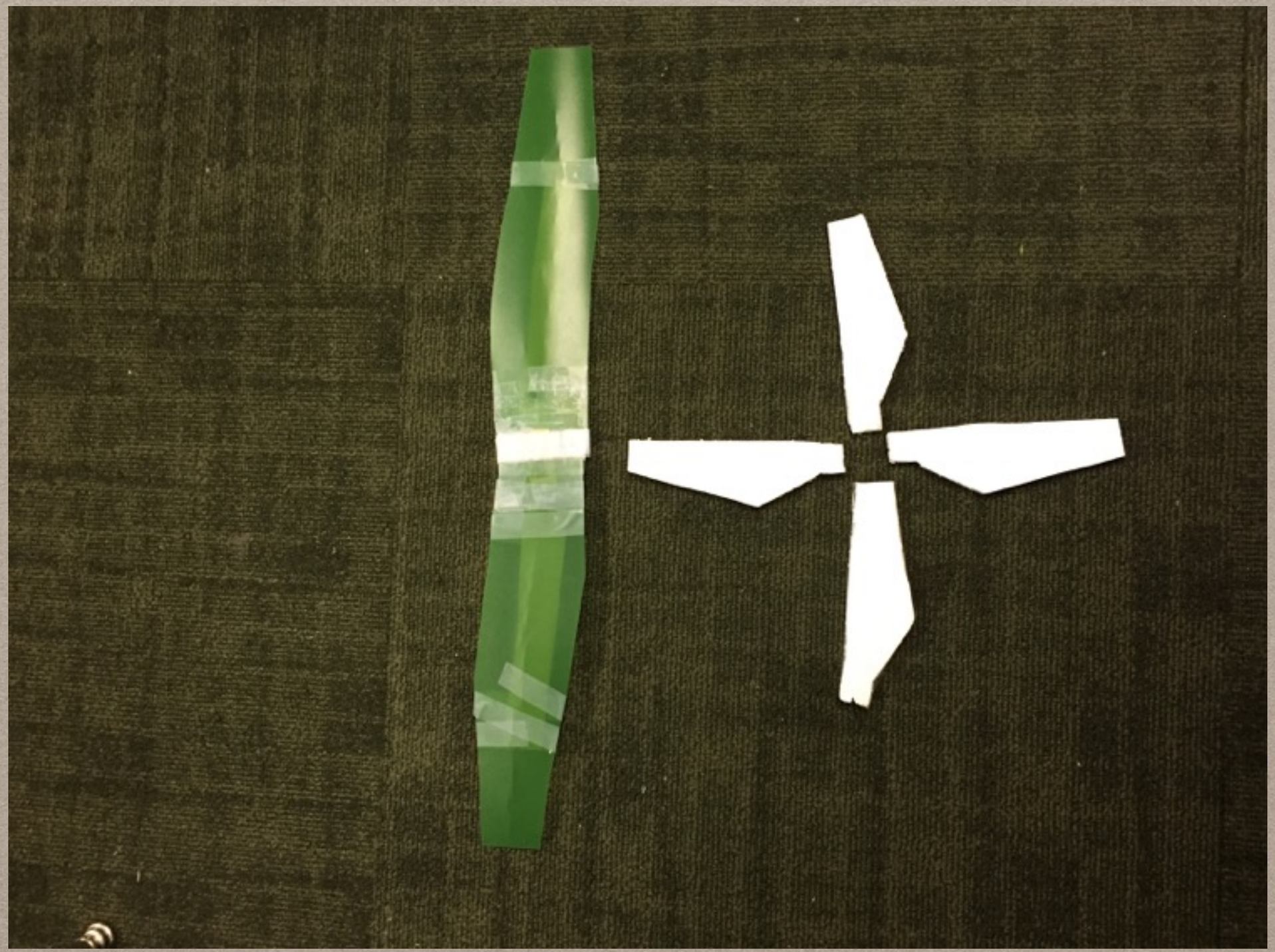
Building



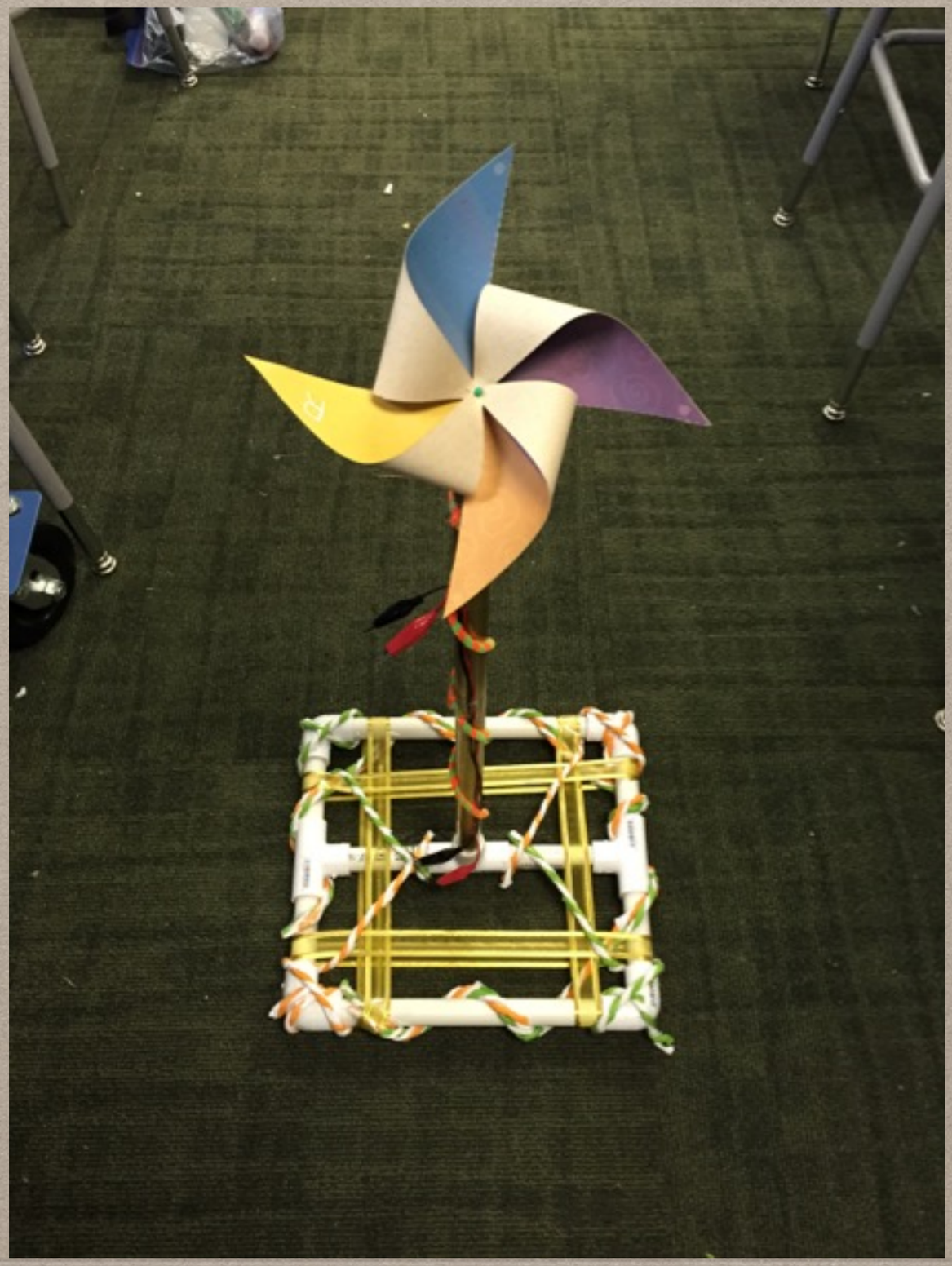



REVISIONS

Wings Revisions

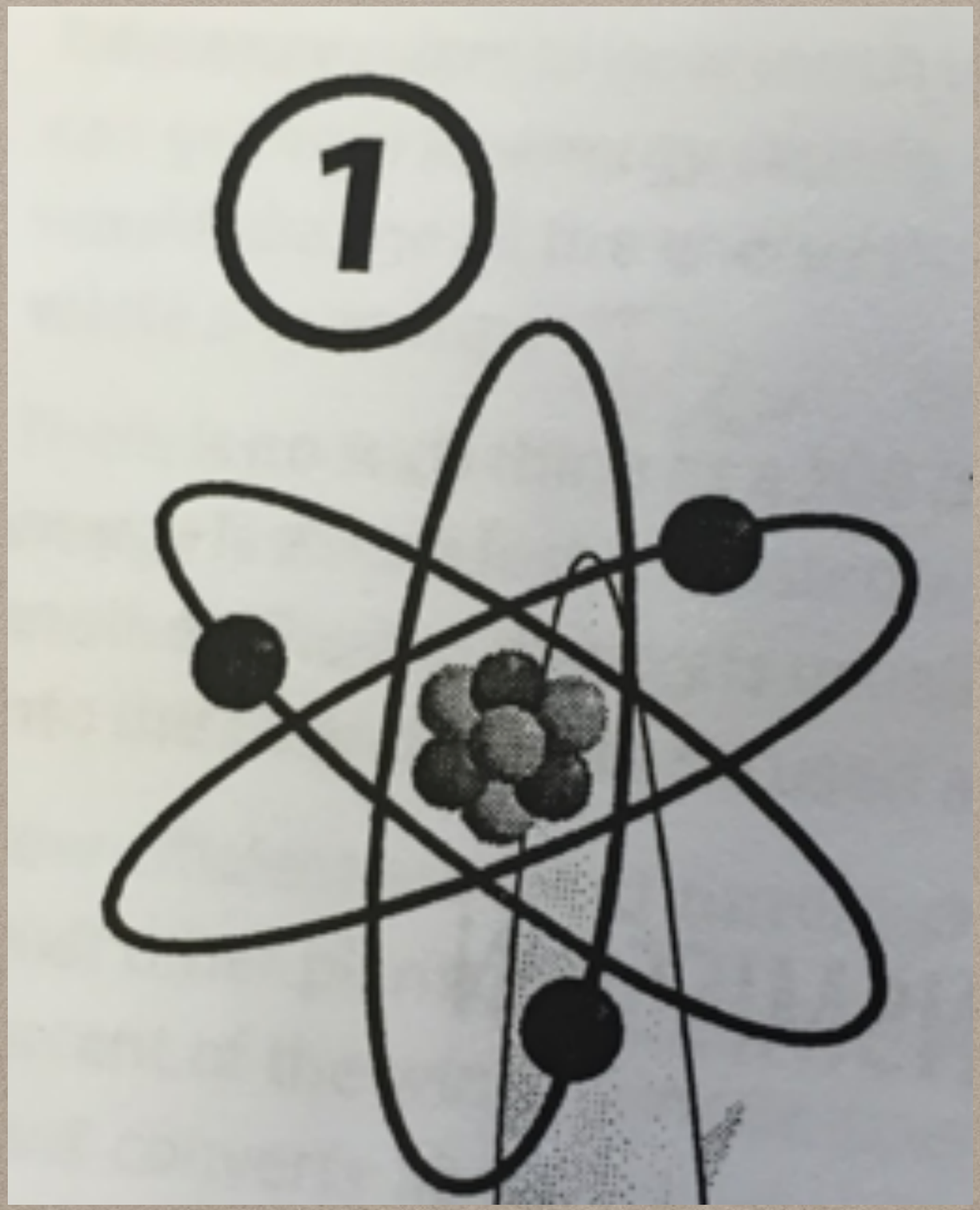


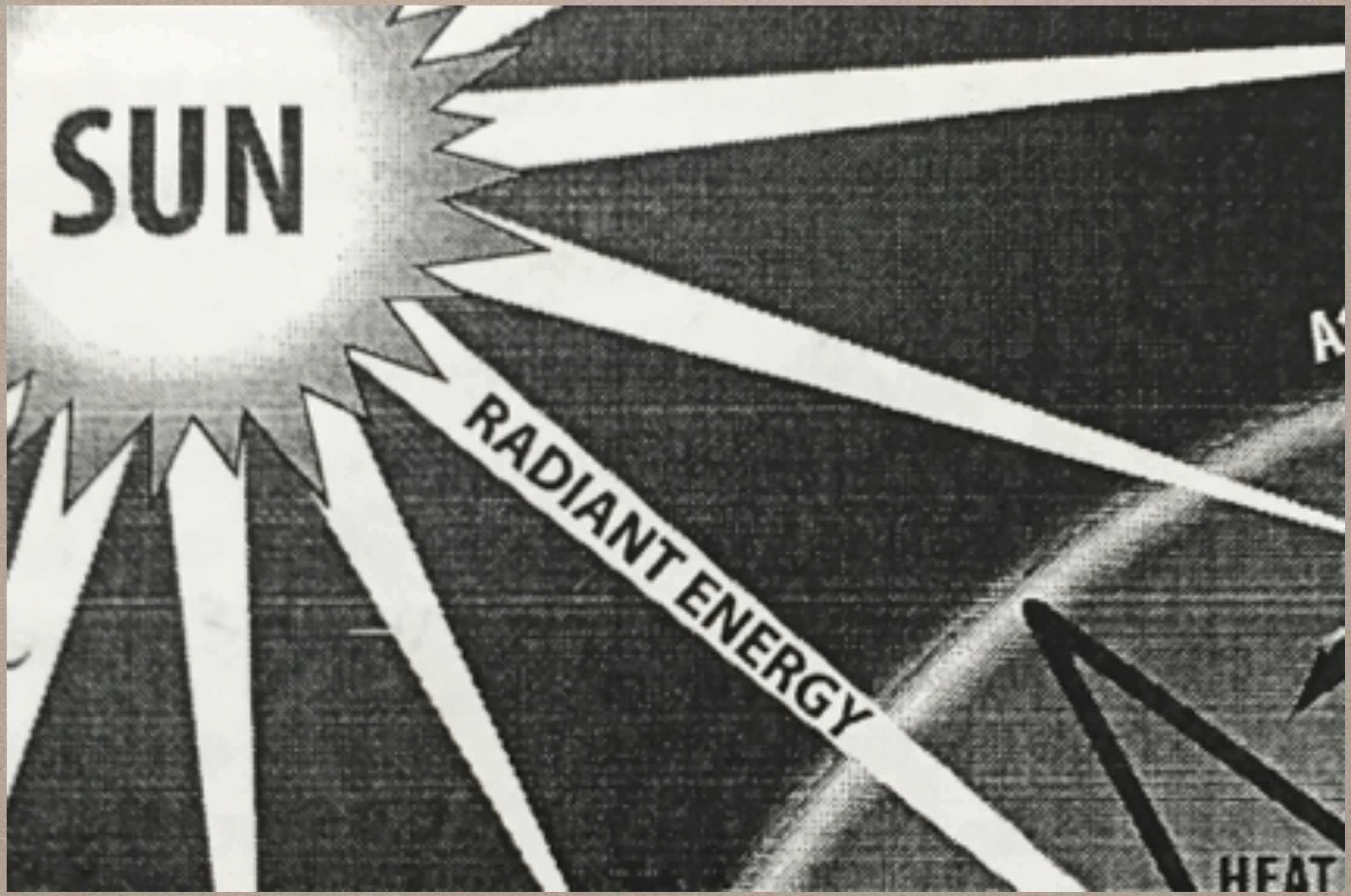
Final Product



Physics Section

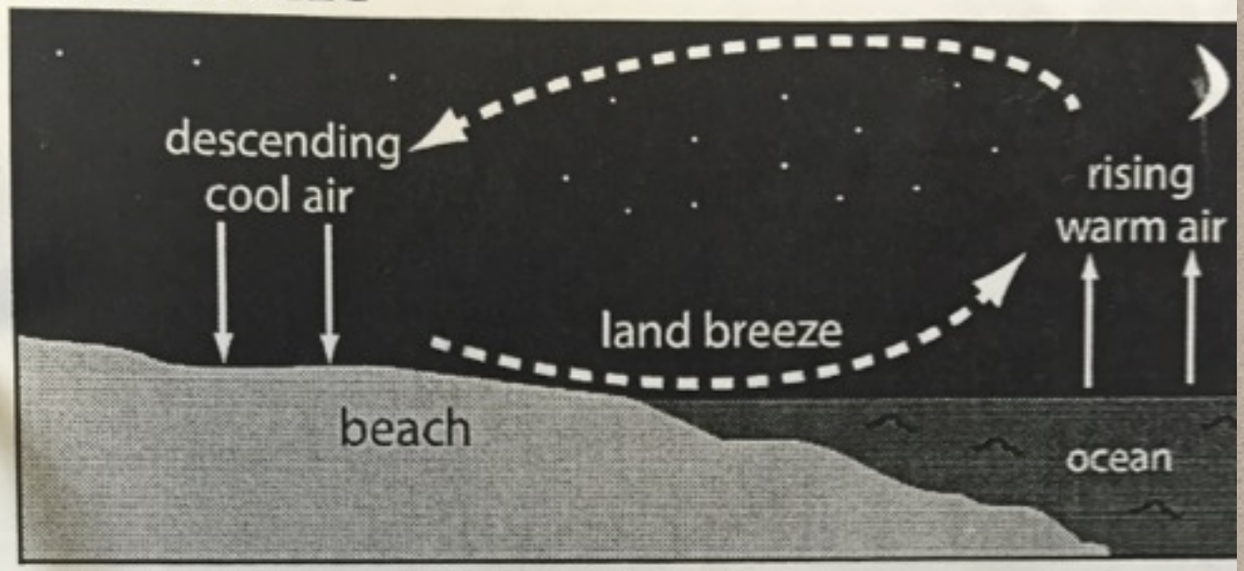
It all Starts Here



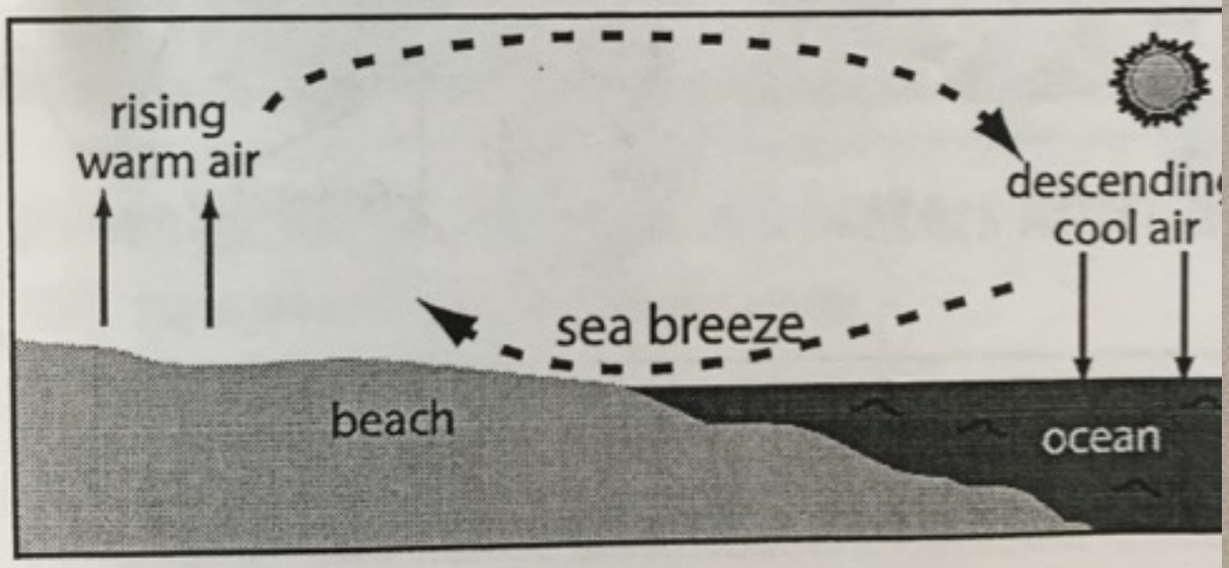

SUN
RADIANT ENERGY
HEAT

different tem

Land Breeze



Sea Breeze

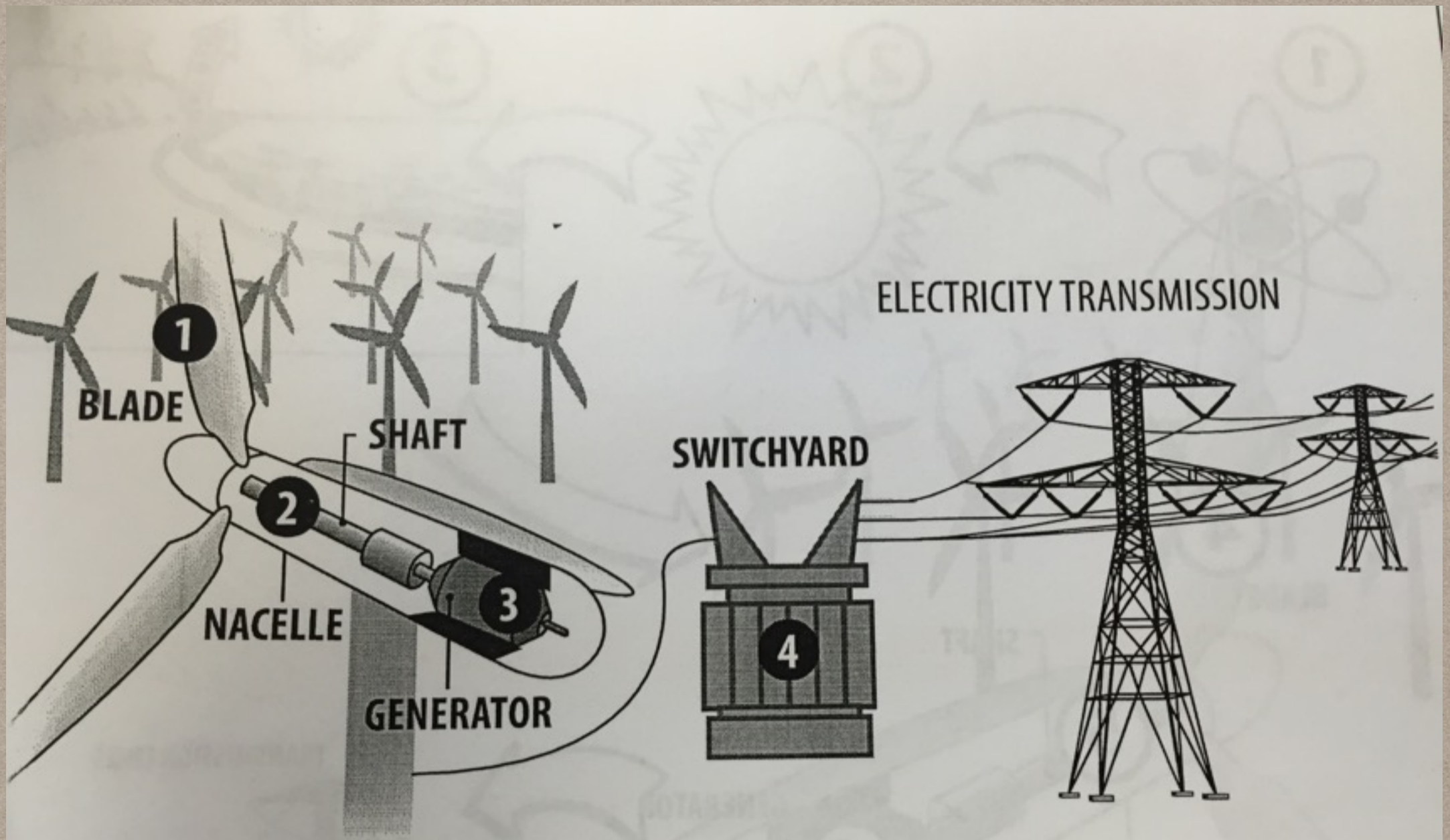


Windmill

Weather Vane

Anemomet

When Wind Hits The Fan



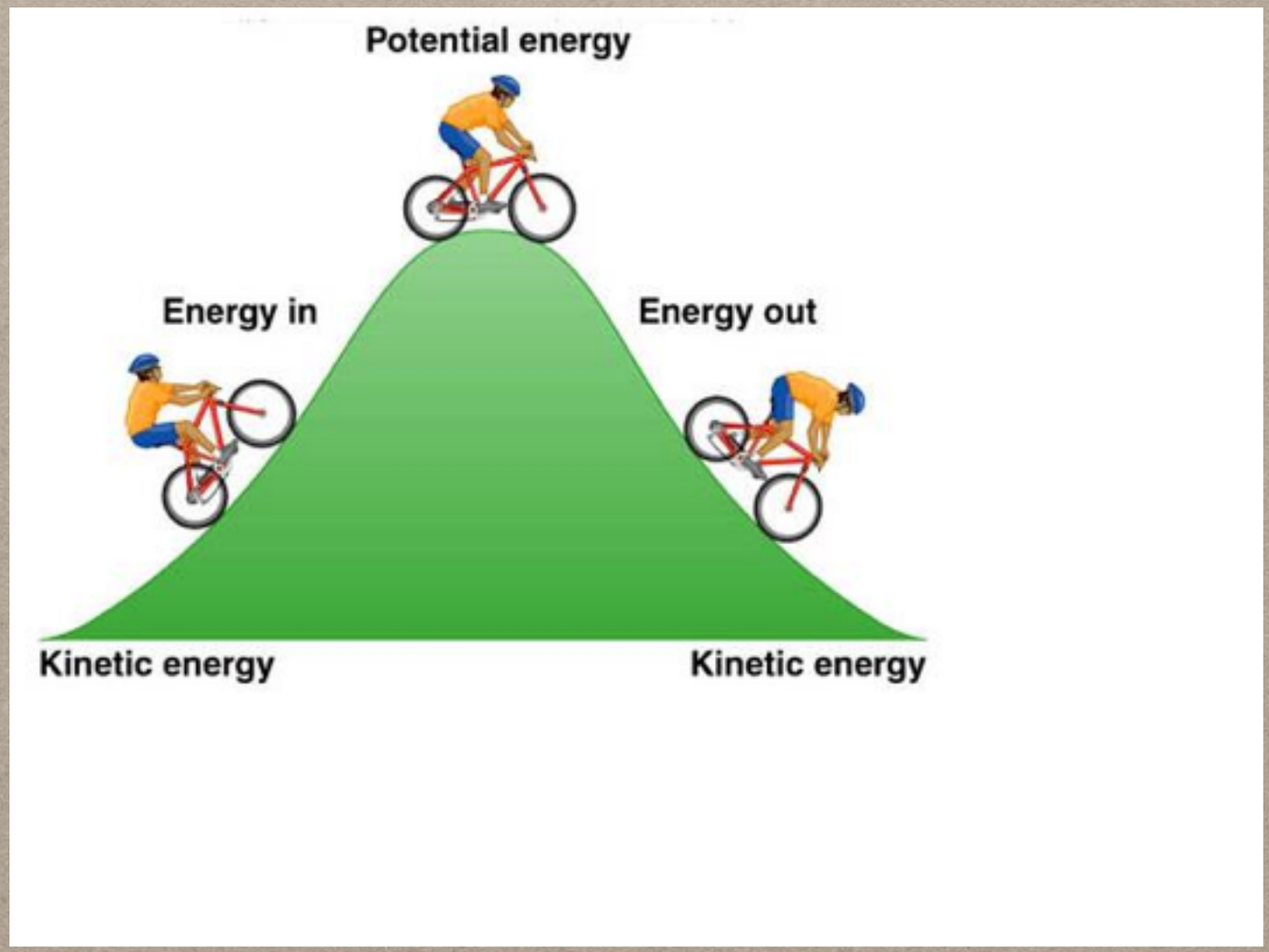
Wind turns the blades of the turbine.

The blades spin a shaft inside the nacelle.

Inside the generator, the shaft spins coils of copper wire inside a ring of magnets.

The Law of Conservation of Energy

In physics, **the law of conservation** of energy states that the total energy of an isolated system remains constant—it is said to be conserved over time. Energy can neither be created nor destroyed; rather, it transforms from one form to another.



Physics Wind Turbine Data

Fan Level 1 (lowest)		Fan Level 2 (middle)		Fan Level (heighest)	
0.10 V	0.03 A	0.14 V	0.04 A	0.17 V	0.05 A