

# Session 1: Engineering World's Best Glider Using IDEAS Engineering Journal



[illegible]

- What is an engineer?
- What are some of the different kinds of engineers?
- How do engineers make the world a better place?

# What, Why, How

Experience using the IDEAS  
Engineering Journal to see  
how it helps guide you through  
the improvement of existing  
designs by engineering the  
world's best glider.

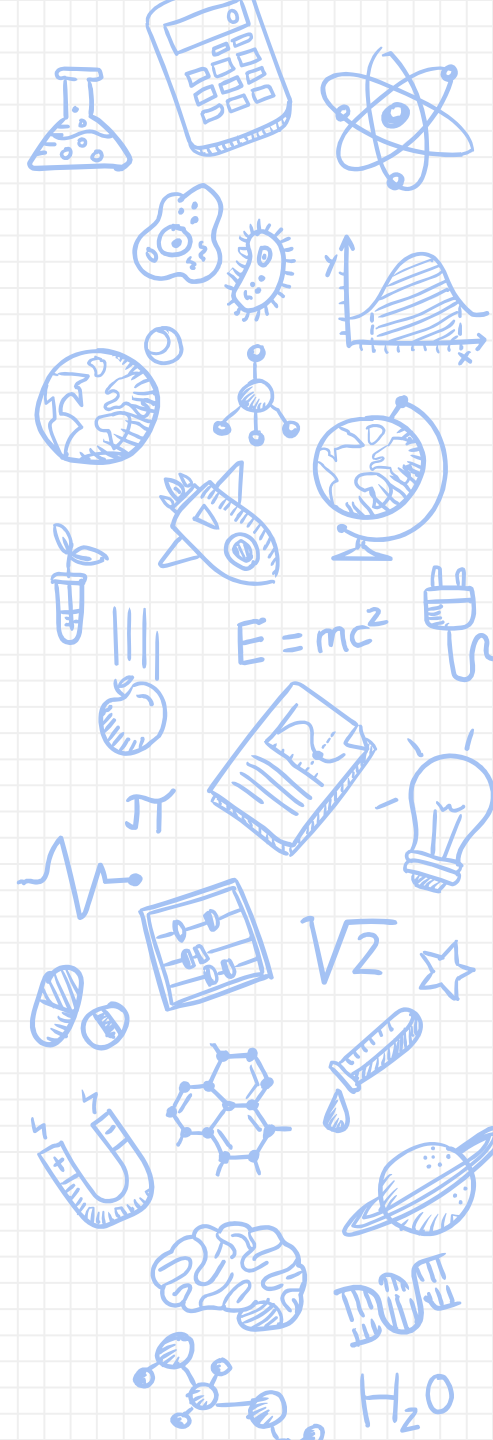
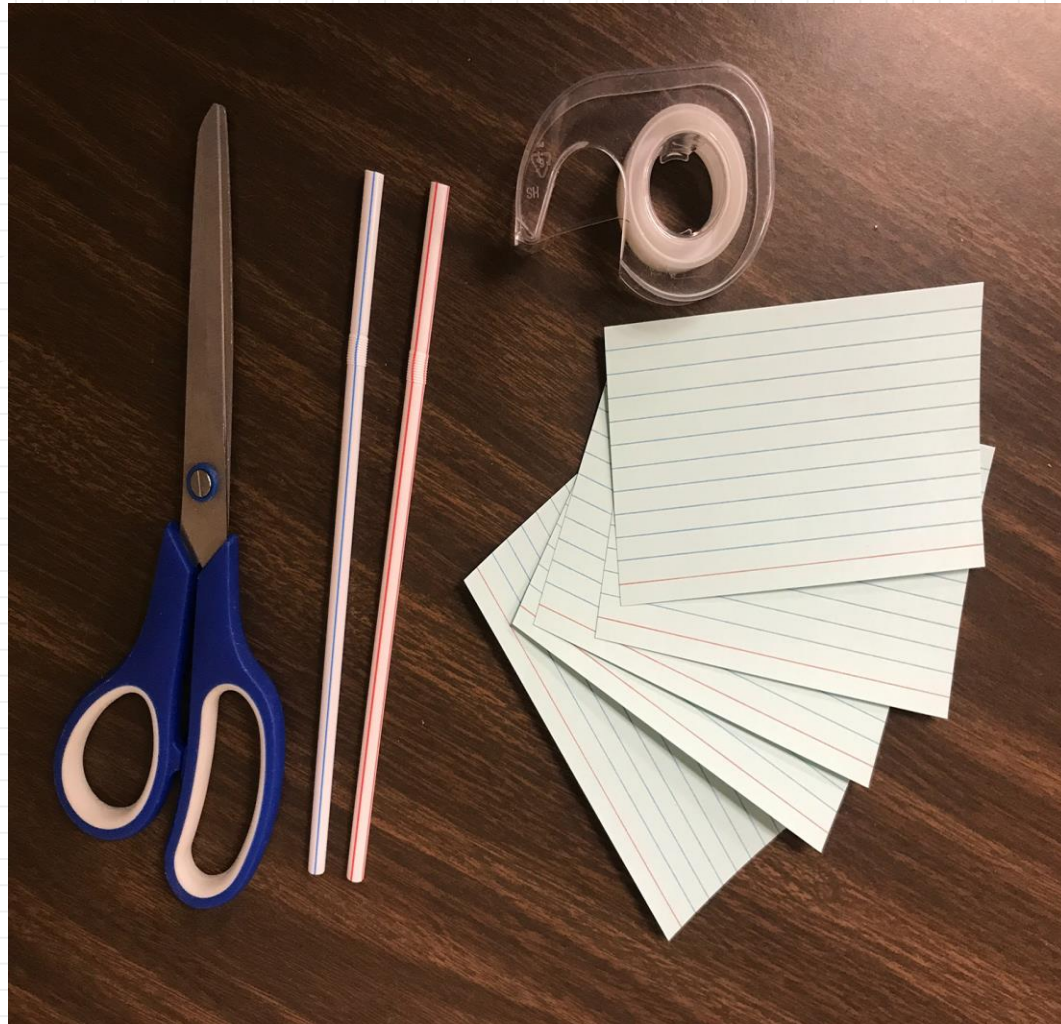




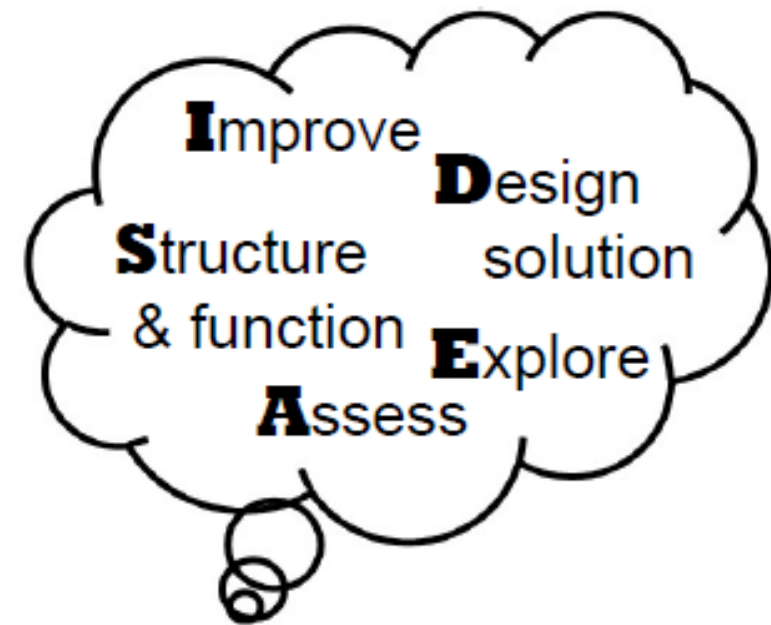
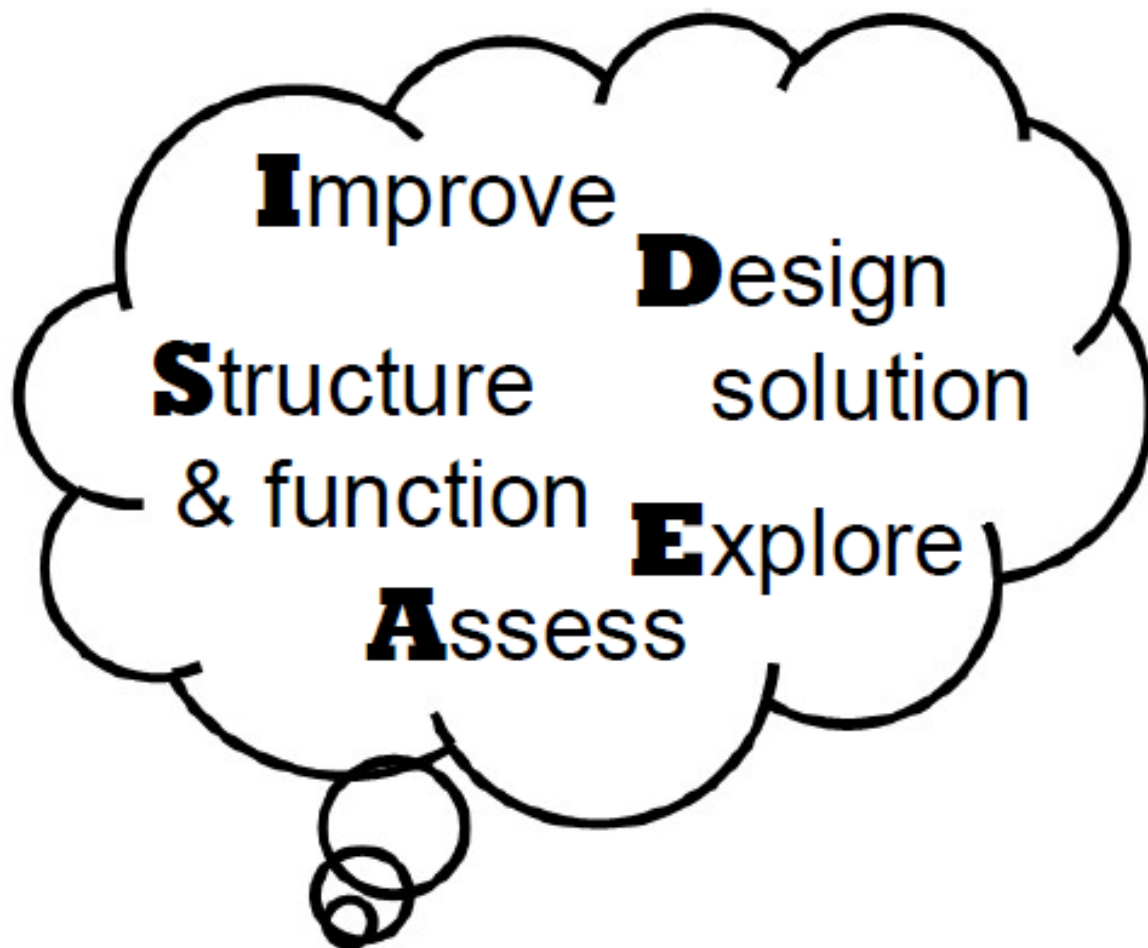
# IDEAS Engineering Glider

## Materials:

- index cards
- straws
- tape
- scissors
- Pencil
- IDEAS Engineering Journal



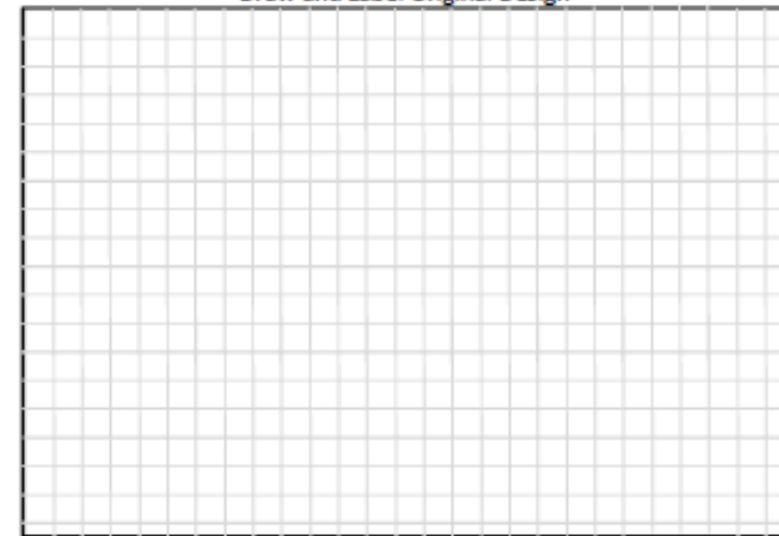
# IDEAS Engineering Journal



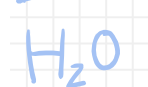
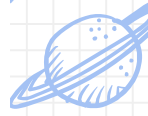
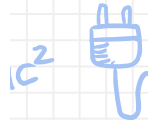
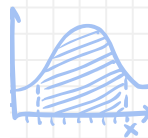
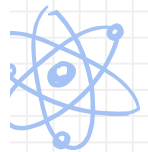
Engineer's Name \_\_\_\_\_

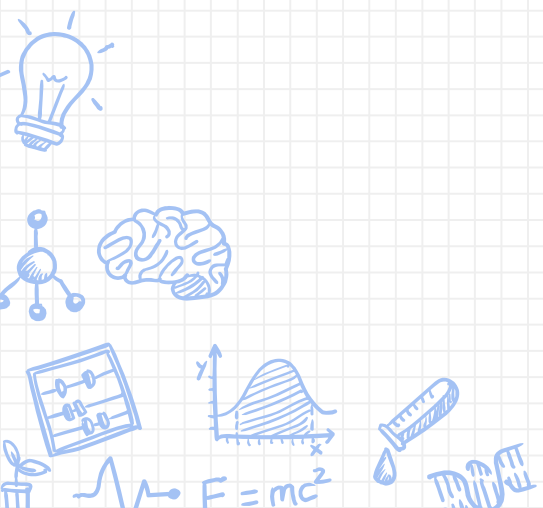
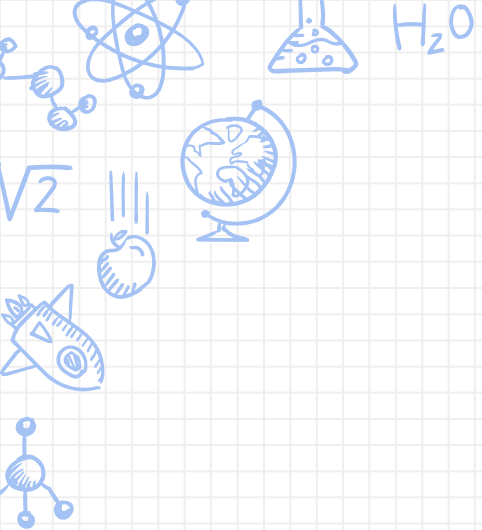
Engineering This: \_\_\_\_\_

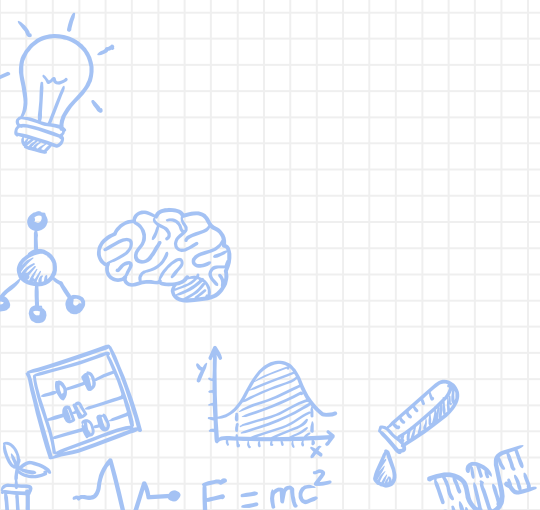
Draw and Label Original Design

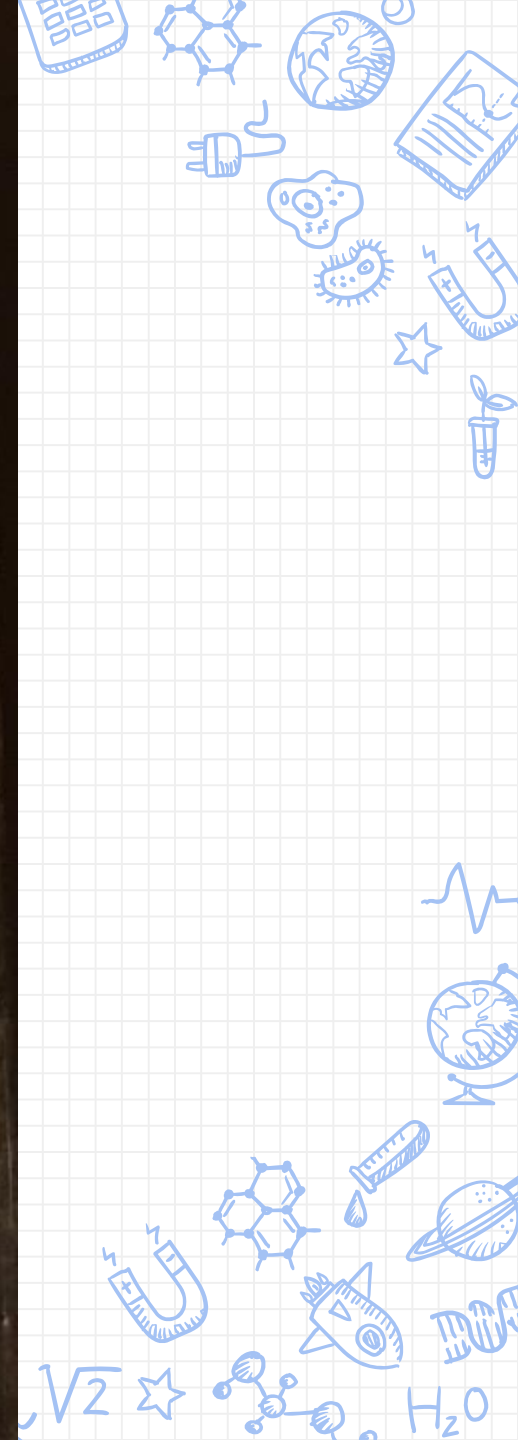
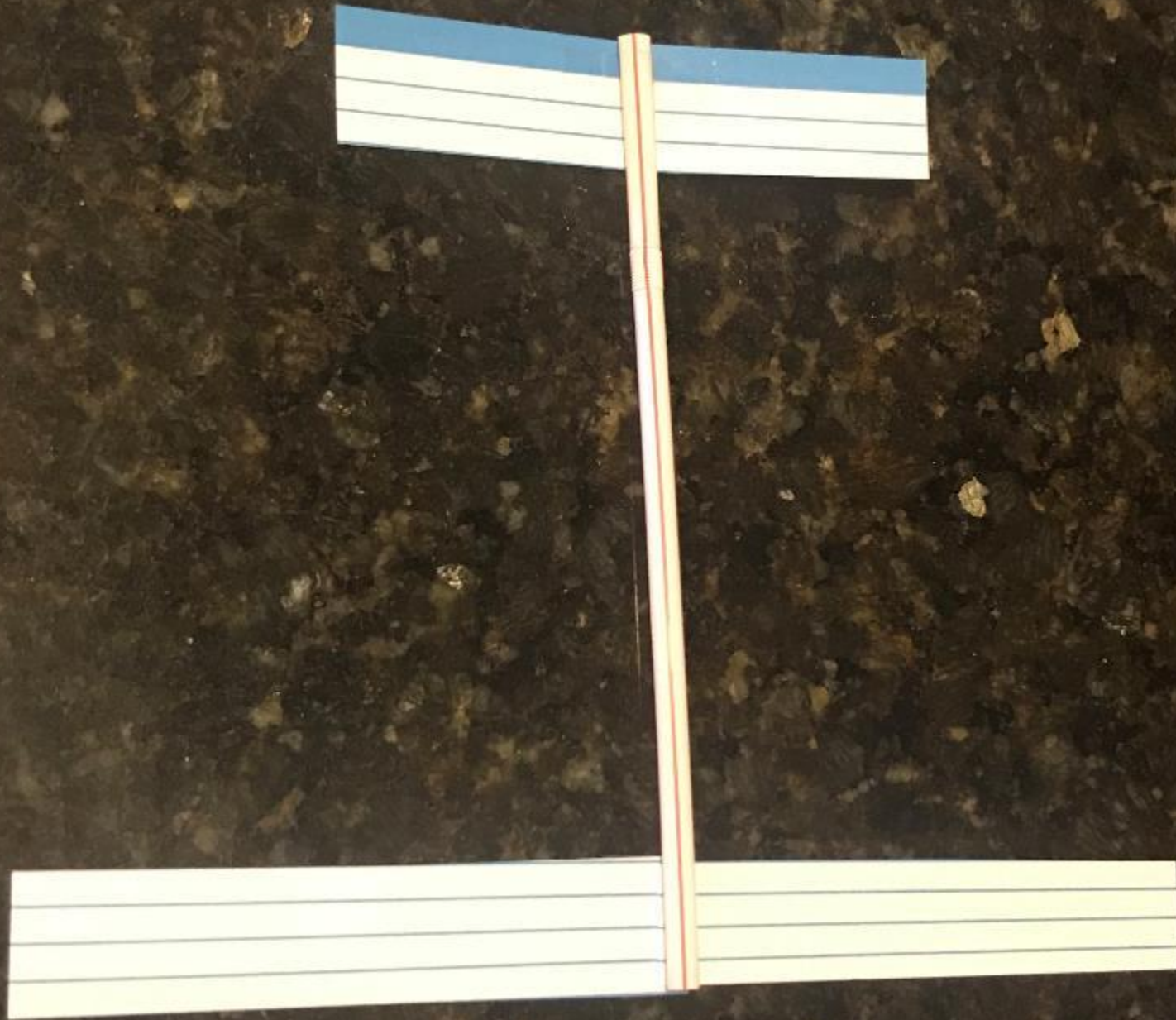
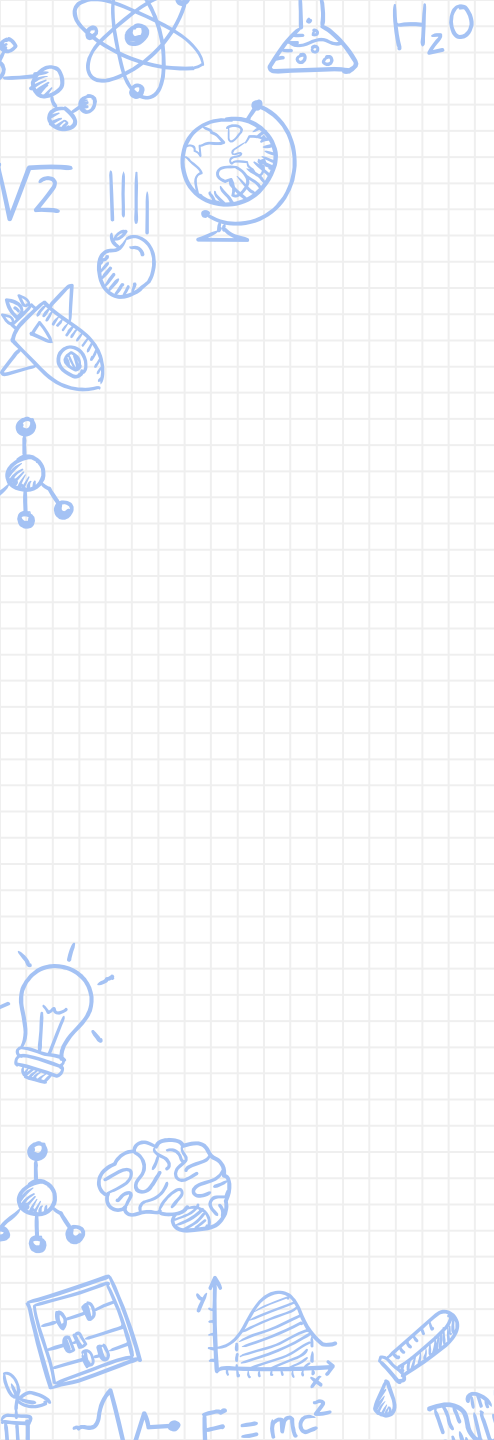


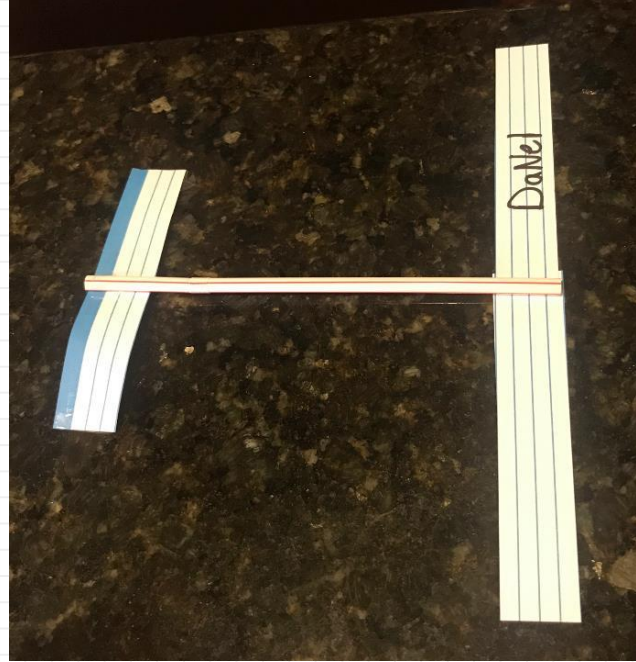
DaNel Hogan and Sherrie Dennis – STEMAZing.org











**Prepare to be impressed.**

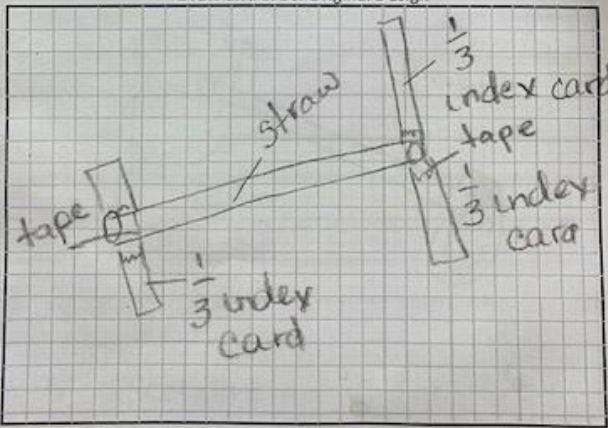
**Complete your labeled drawing and wait to  
test the glider until instructed to do so.**

# Original Design – Labeled Drawing

**Improve** **Design**  
**Structure** **solution**  
**& function** **Explore**  
**Assess**

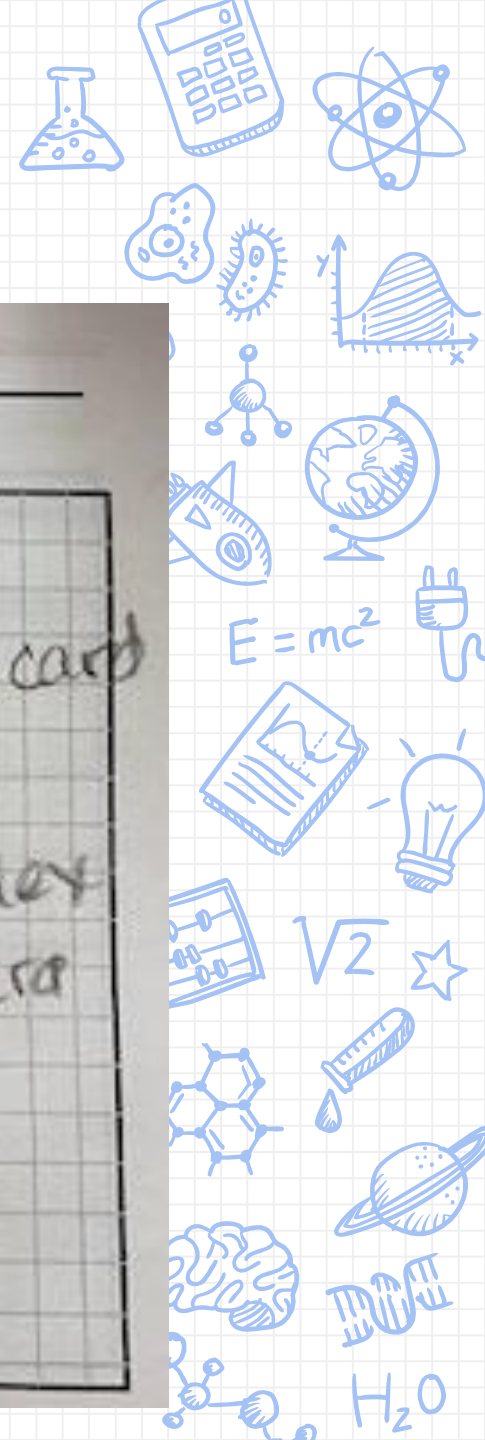
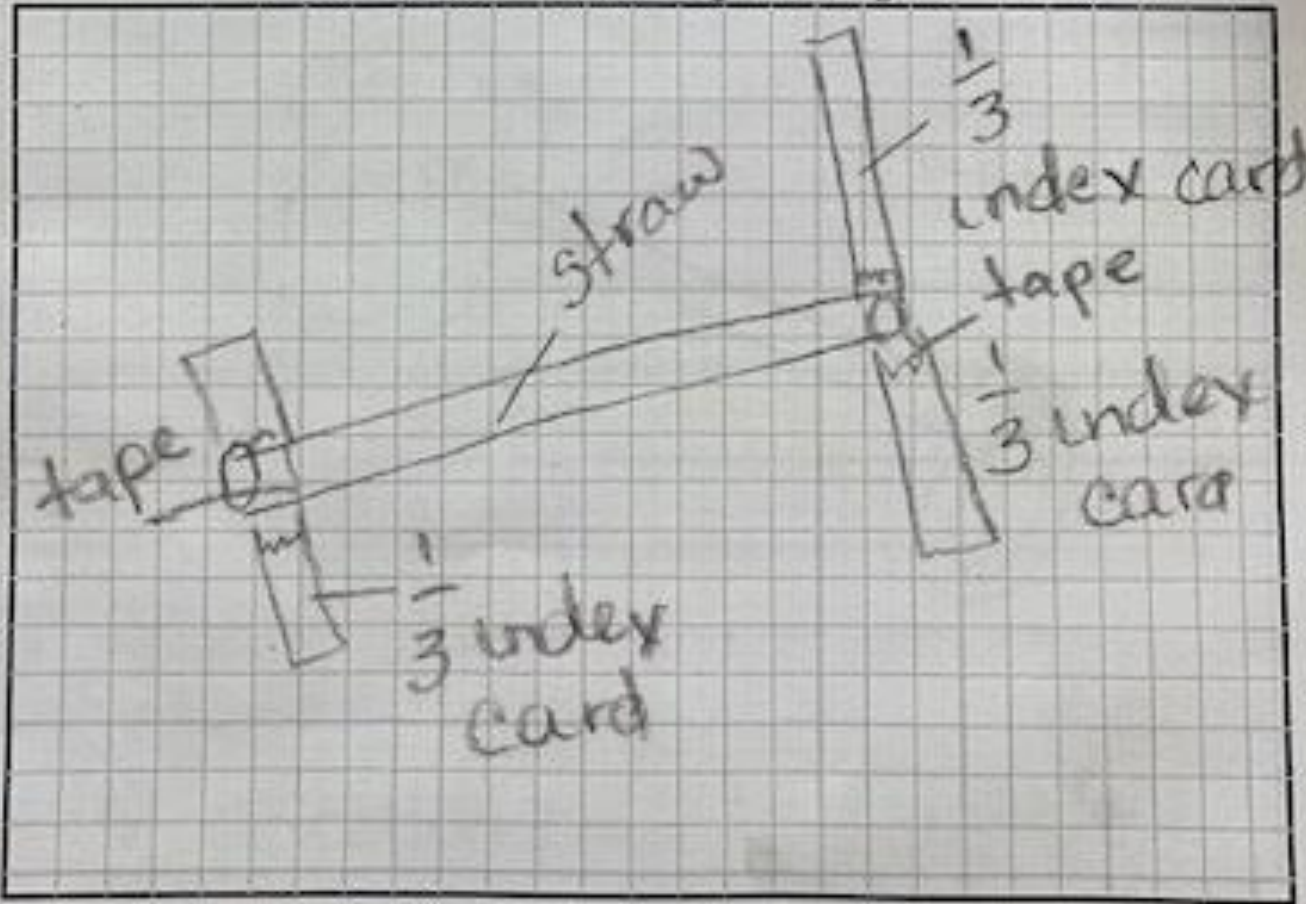
6 Sherrie  
Engineer's Name

Engineering This: glider  
Draw and Label Original Design



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Engineering This: glider  
Draw and Label Original Design



Test it!  
Record observations in journals.  
Share observations.



# Modification 1

## IDEAS for Modification 1

( Can you make a  
\_part bigger/smaller?)

(Can you change the shape of a part?)

Are there different materials you could use? }

( Can you make a  
part lighter/heavier?

(Can you make a part  
longer/shorter?)



# Modification 1

**Ideas?**

Can you change  
the shape of a  
part?



**Prepare to be impressed.**

**Complete your labeled drawing on page 1 in your journal  
and wait to test the glider until instructed to do so.**



# Test it!

## Record observations in journals.

## Share observations.



# Engineer it!

Continue making modifications to your glider and working through the IDEAS Engineering Journal.

Be prepared to share your final designs at next session!



# Why engineer?

## Where engineering might lead you?





Continue engineering your  
world's best glider.  
How far will it go?

