

# Please use our materials!

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We also humbly request that you email [sarah.adams@olin.edu](mailto:sarah.adams@olin.edu) if you use these materials, as we are tracking their impact and how far they travel!



# Welcome!

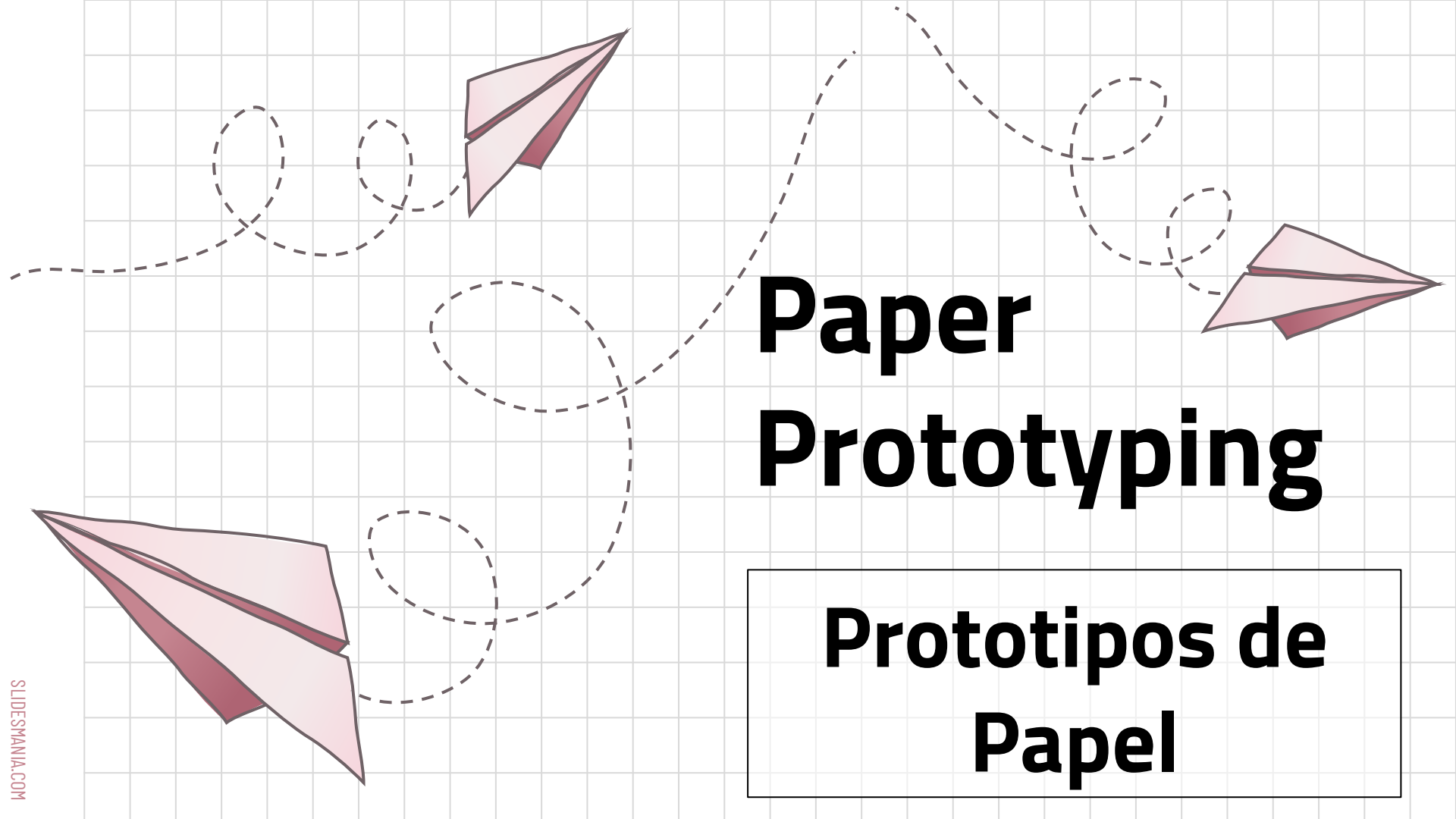
This is going to be a workshop on how to prototype and iterate. If you want to learn what that means and how to do it, stay and hang out.

This will run for approximately an hour and a half.

Paper, tape and scissors will be helpful if you have them.

Esto es un taller sobre prototipos y el proceso de iteración. Si te interesa, ¡queda y pasa el rato con nosotros!

Va a ser aproximadamente 1 hora y media.  
Si tienes, papel, cinta, y tijeras son útiles.

The image features a light gray grid background. Three paper airplanes, colored in shades of pink and red, are shown in flight. They are connected by a dashed black line that forms a winding path across the grid. The airplanes are positioned at various points along this path: one in the upper left, one in the lower left, and one on the right side. The text 'Paper Prototyping' is written in a large, bold, black font in the center-right area. Below it, the text 'Prototipos de Papel' is enclosed in a black rectangular box.

# Paper Prototyping

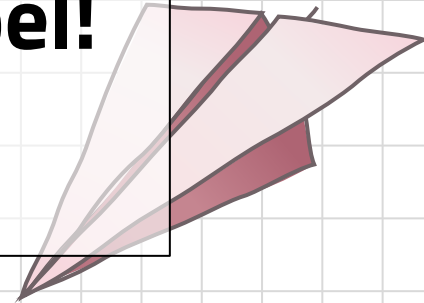
**Prototipos de  
Papel**

# Let's make a paper airplane

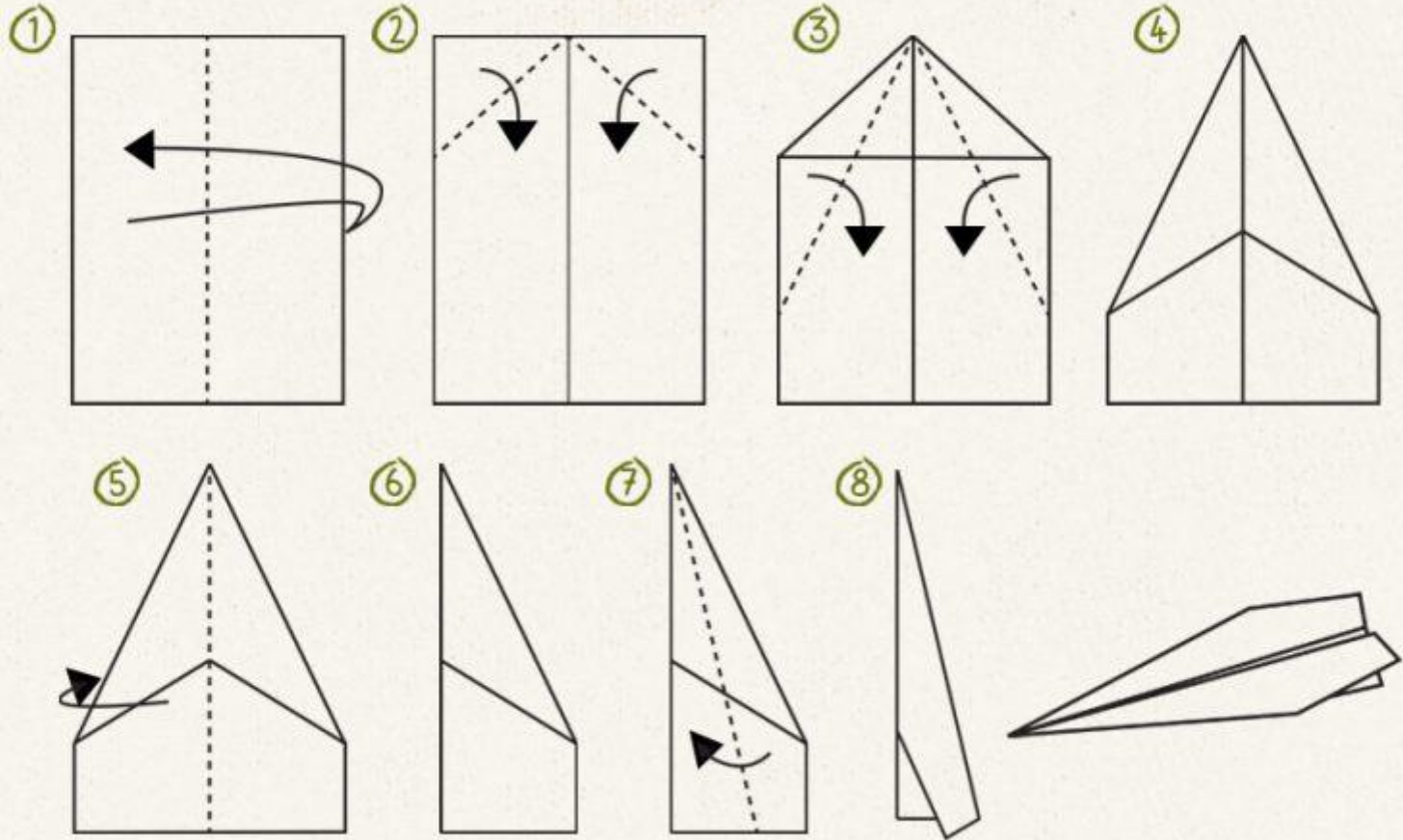
Follow along  
or  
make your own!

**¡Vamos a crear un avión de papel!**

Sigue nosotros o crea un original.



# PAPER AIRPLANE DIAGRAM



# Test your plane

If you can, test your paper plane.

How did it work? What did you notice?

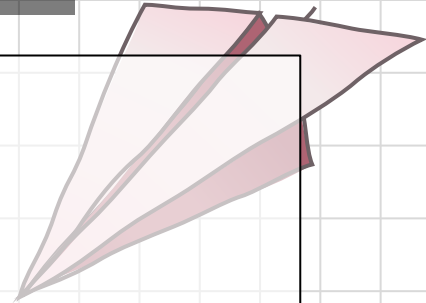
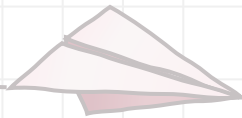
Share in the chat

## Prueba tu avión

Si puedes, prueba tu avión.

¿Cómo funciona? ¿De qué te da cuenta?

Comparte en el chat.



# Iterate! Change it up

Change something about your plane. Try to make it go further or fly faster.

Test it out again.

What changed? Did it perform better or worse?

## ¡Itera! Cambia el avión.

Cambia algo sobre tu avión. Trata de influirlo a volar más adelante o aumentar su velocidad.

Pruebalo otra vez.

¿Qué cambia? ¿Performa mejor o peor?







Prototipo

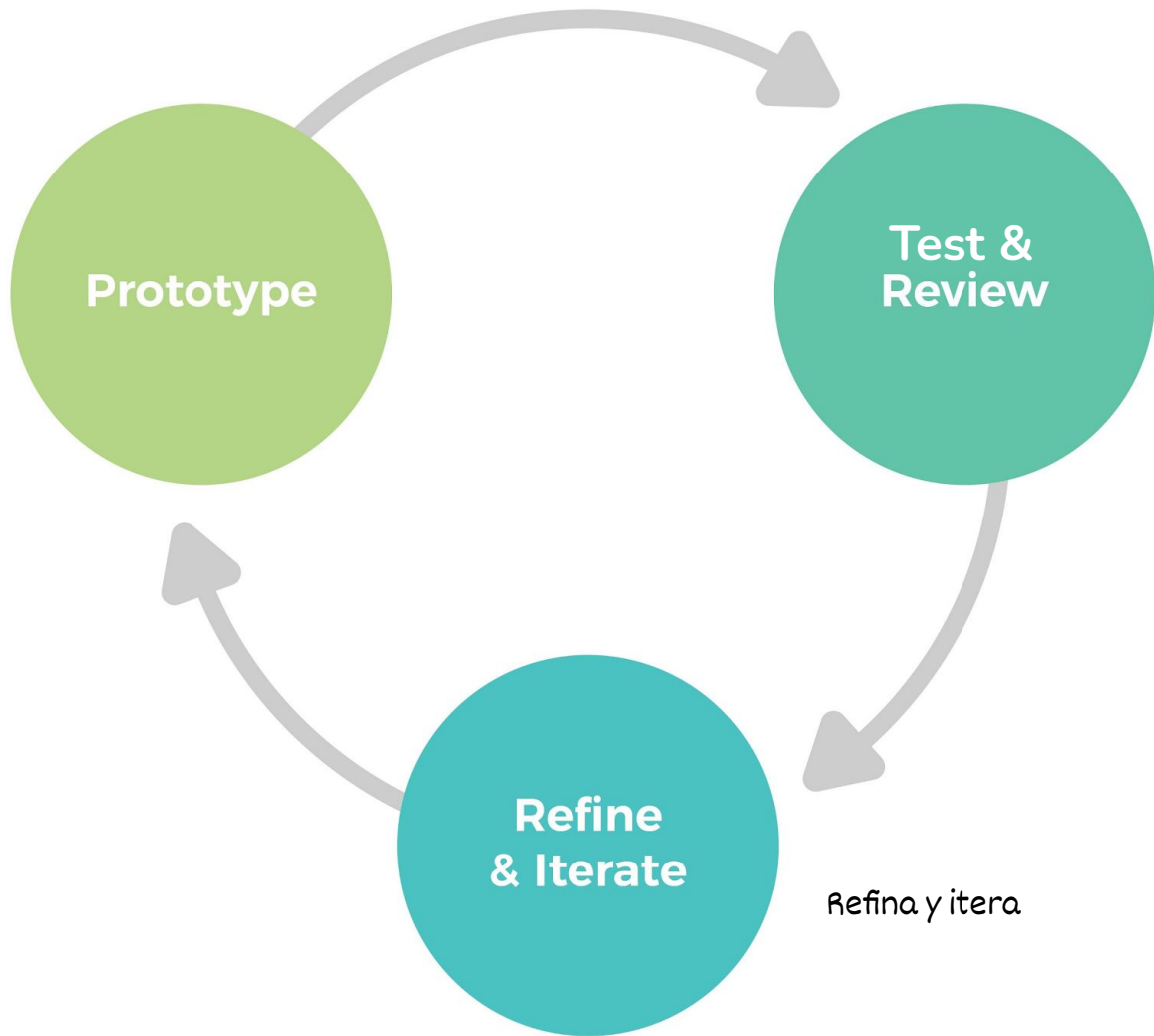
**Prototype**

**Test &  
Review**

Prueba y  
revisa.

**Refine  
& Iterate**

Refina y itera.



# What is prototyping?

A prototype is an **early model** of something.

Prototypes are used to **test a concept/process**.

Prototyping: taking an idea and **building** it so it can be tested

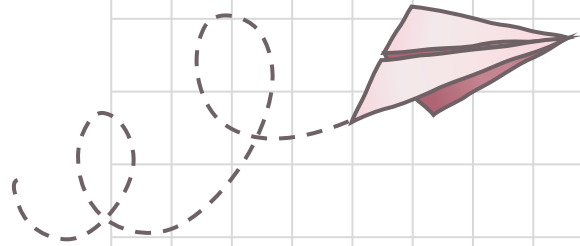
Un prototipo es un **modelo principio**.

Prototipos son usado para **probar un idea o proceso**.

Hacer un prototipo: **Construyendo** algo de un idea para probarlo.



# What is iterating?



Iterating is when you **take what you learned** from your prototype and **apply it** to the next one.

What didn't work in your last prototype?

What will you try in your next prototype?

An iteration is **a version of something**/one of your prototypes for the same idea

Iterando es **usando lo que aprendiste** sobre tu prototipo para **aplicarlo** en el siguiente.

¿Qué funciona bien en el prototipo previo?

¿Qué vas a cambiar en tu prototipo siguiente? Una

iteración es **una versión de algo**, o uno de tus prototipos sobre el mismo idea.

# What is sketch modeling?

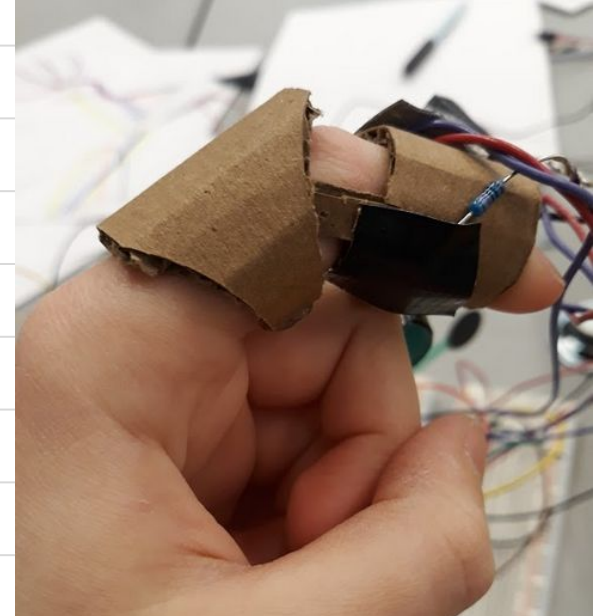
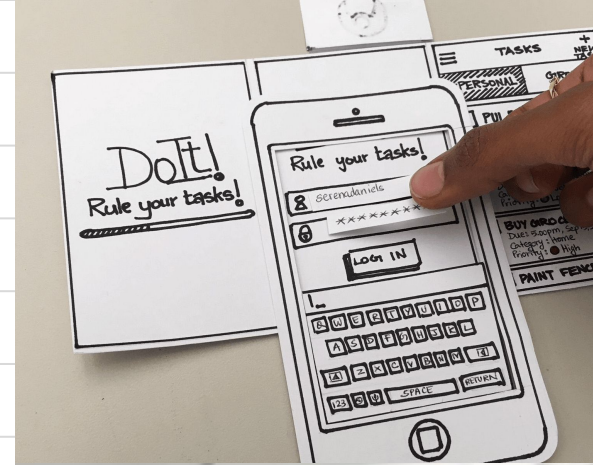
A simple physical model (prototype)

- Low cost material
- Easy and fast to make
- Low fidelity
  - Looks like the idea but doesn't work
  - Works like the idea but looks bad
- Made to be tested/broken
- Have a purpose! (something to test)

## ¿Qué es modelando bosquejos?

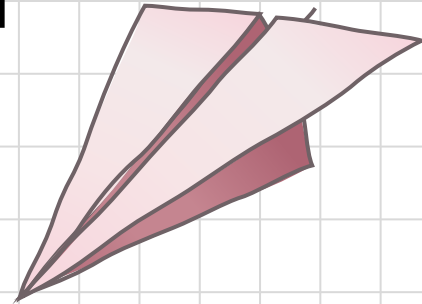
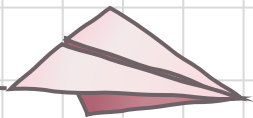
Un prototipo físico y simple.

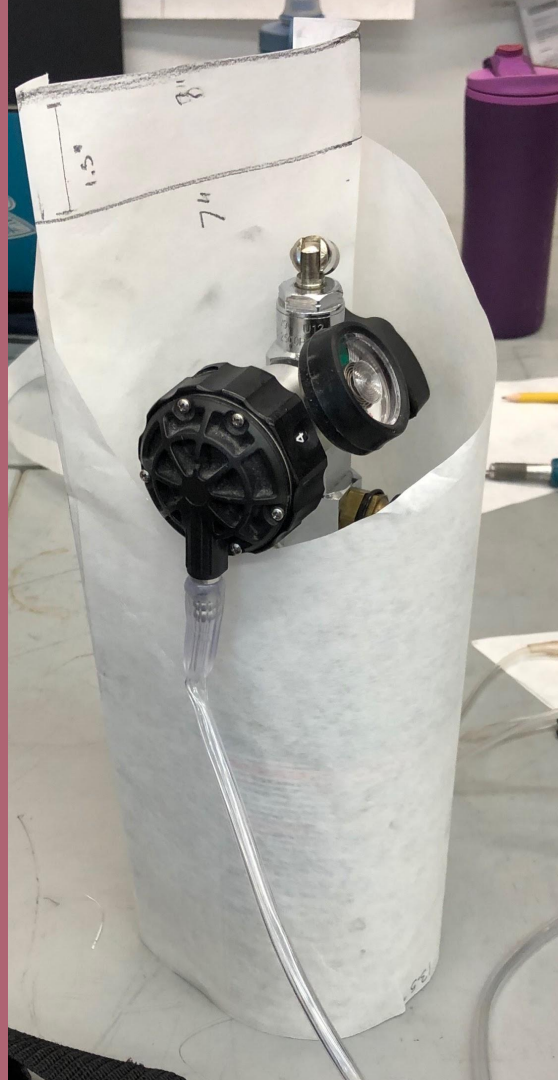
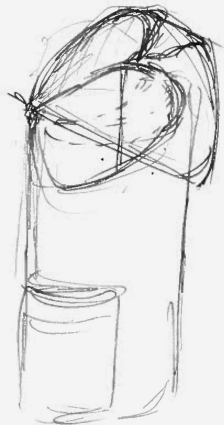
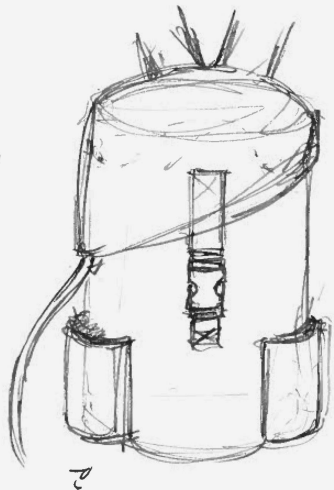
- Materiales de bajo costo, fácil y rápido para hacer
- Fidelidad bajo
- Se parece el idea pero no funciona, o funciona como el idea pero es feo
- Diseñado para probar y romper
- ¡Ten algo para probar!



# What can you do with paper?

¿Qué podemos hacer  
con papel?



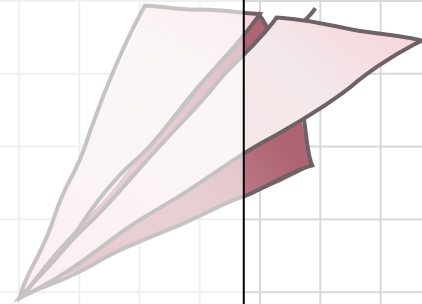
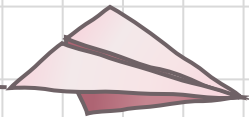


# Let's learn some techniques

- Creases and folds
- Tearing straight lines
- Connecting without tape
- Make a box

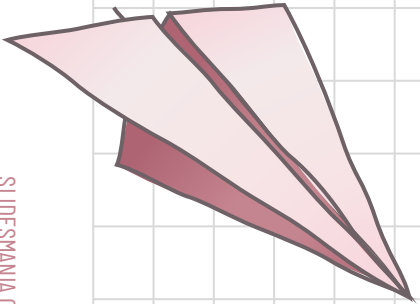
## Aprendemos técnicas

- Rayas y doblas
- Rasgando líneas rectas
- Conectando sin cinta
- Haciendo una caja

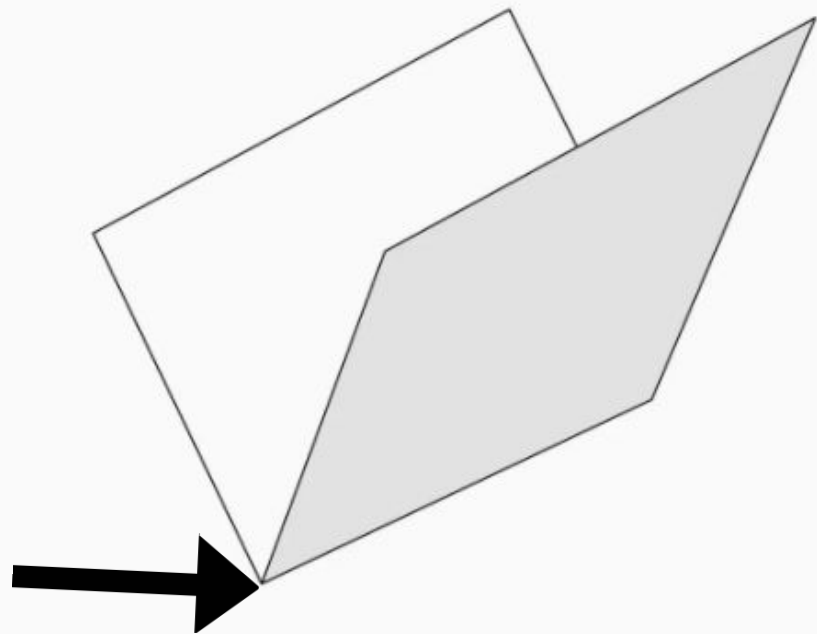
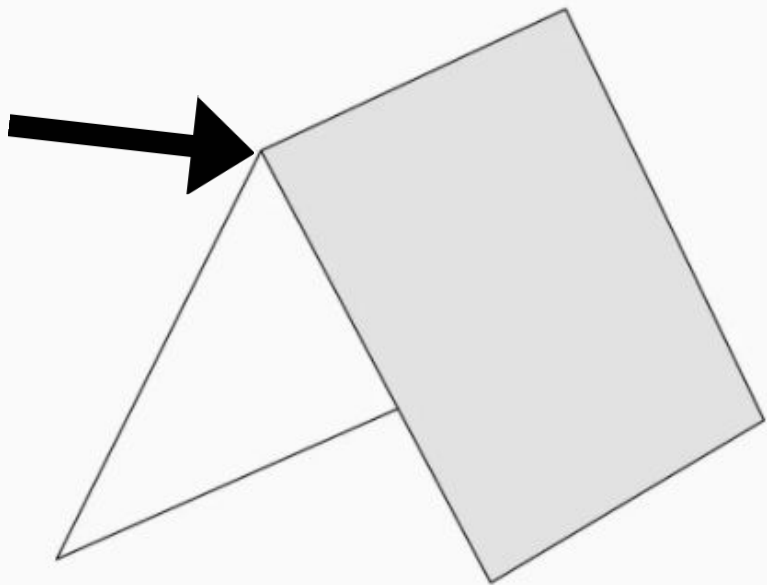




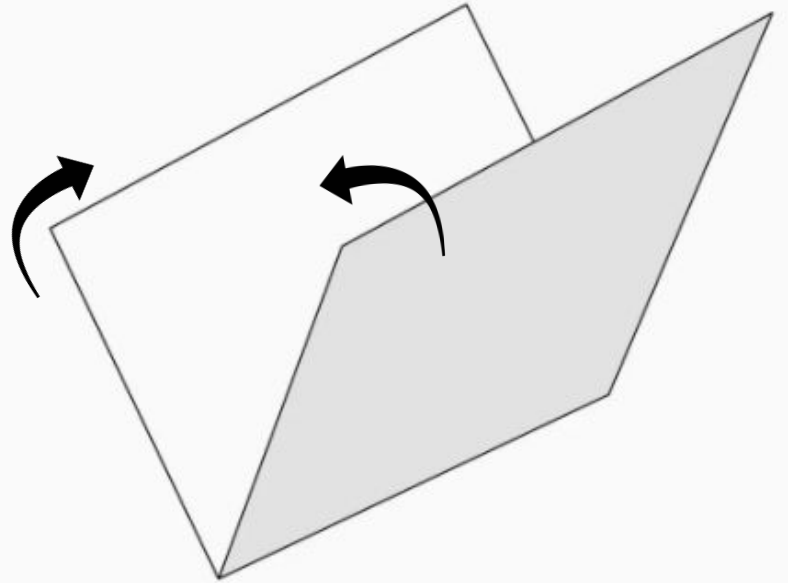
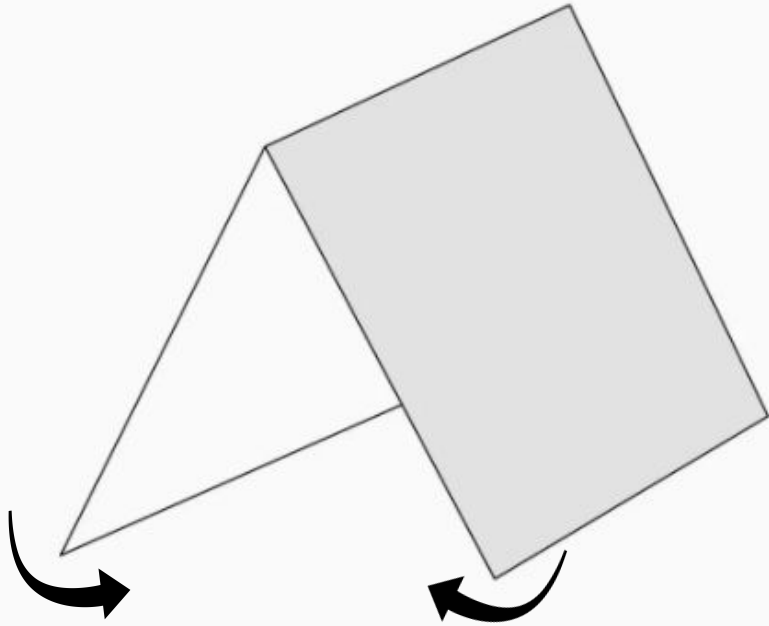
# Creases & Folds

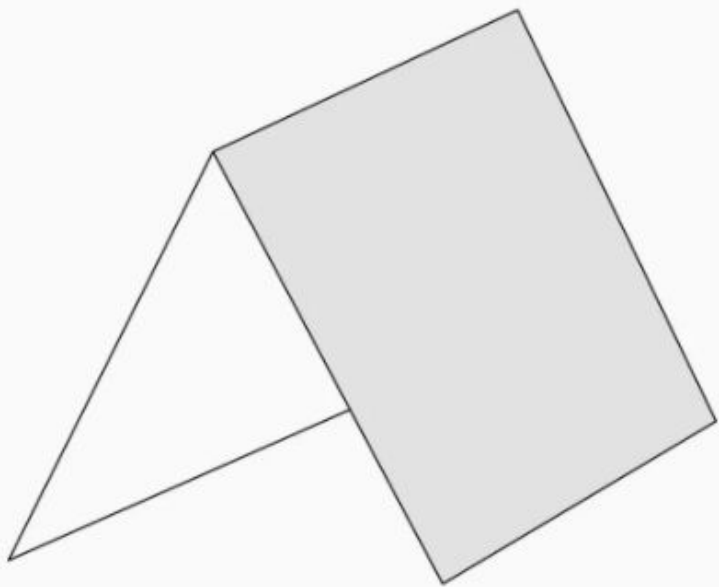


# Crease

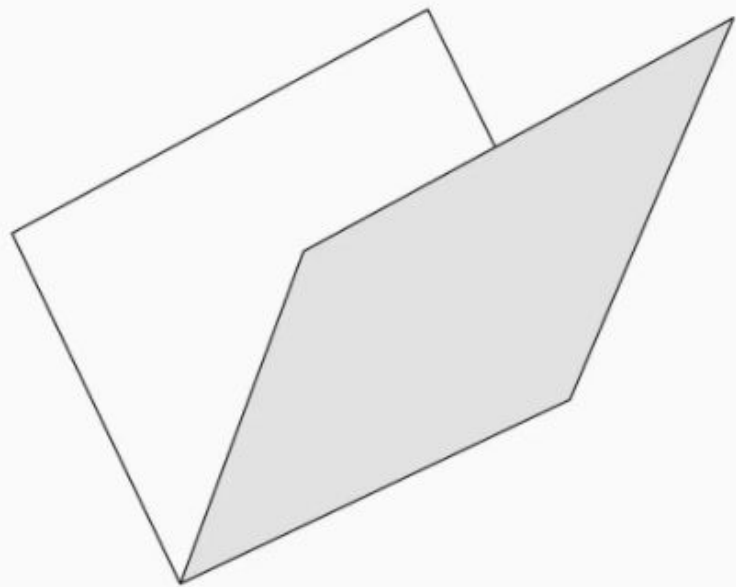


# Fold



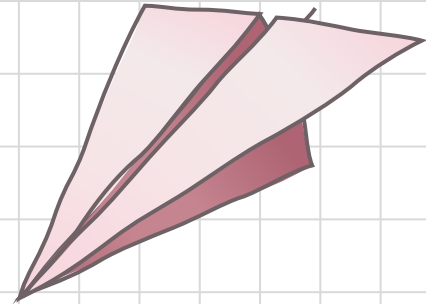
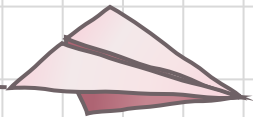


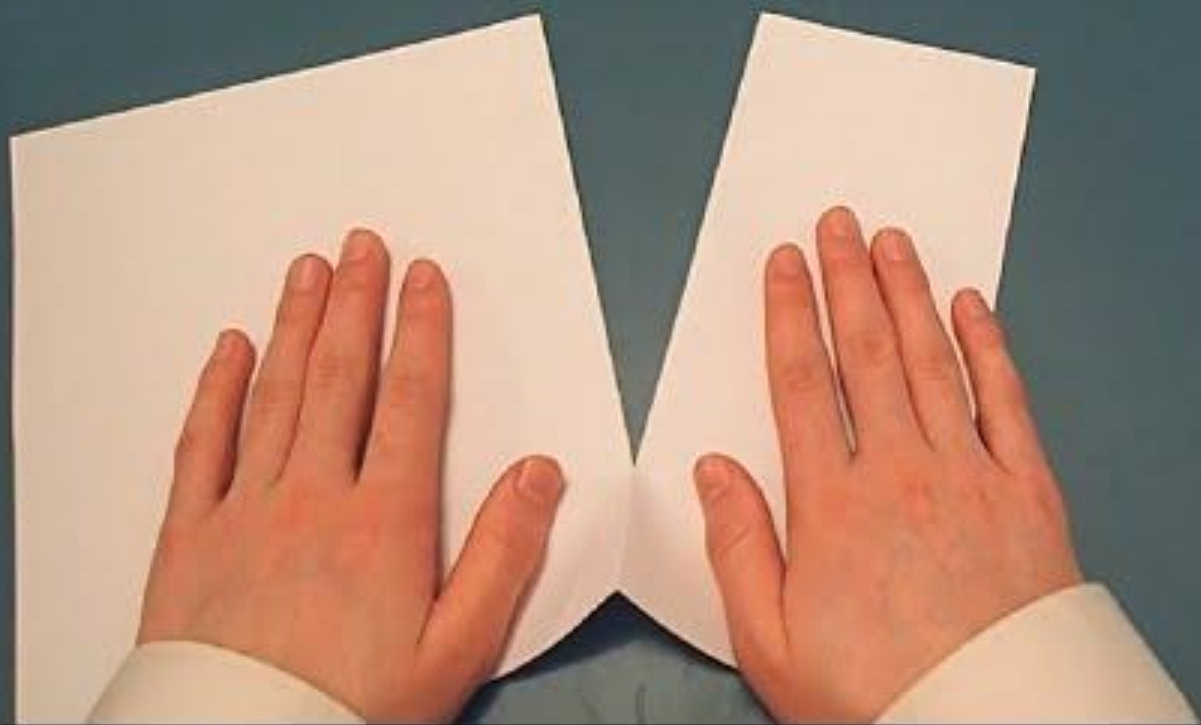
With a **Mountain Fold** the crease bends the paper down and the crease resembles a mountain.



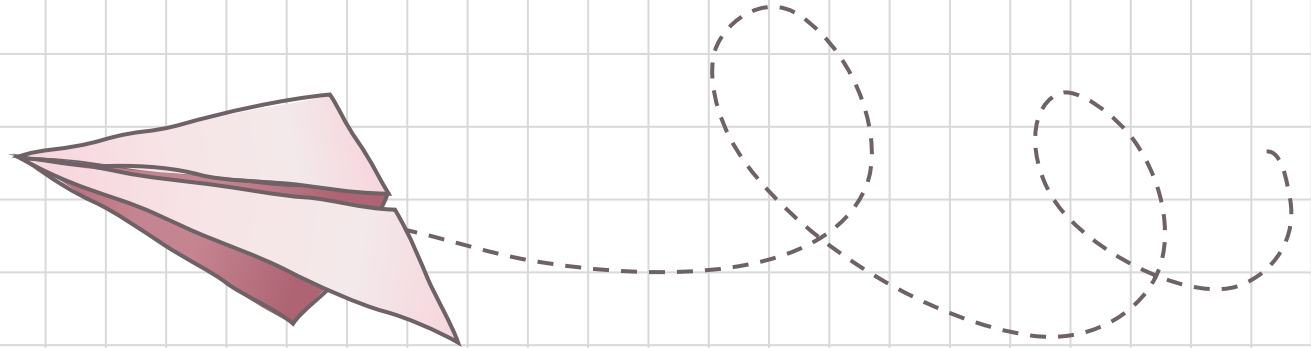
With a **Valley Fold** the crease bends the paper up and the crease resembles a valley.

# Ripping Straight Lines

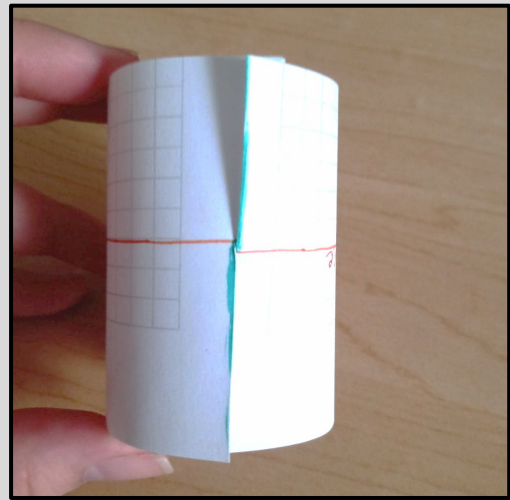
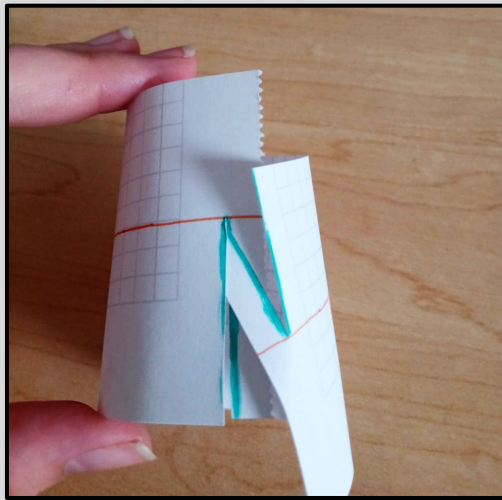
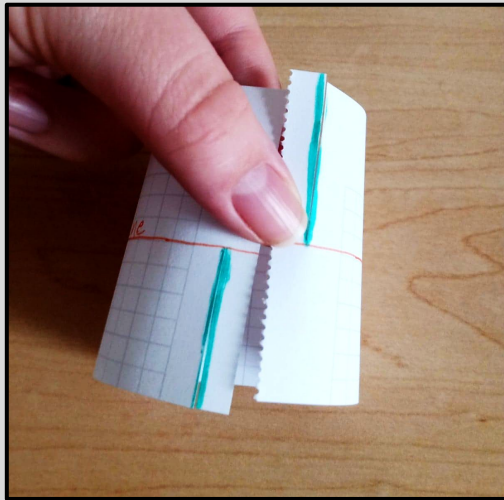
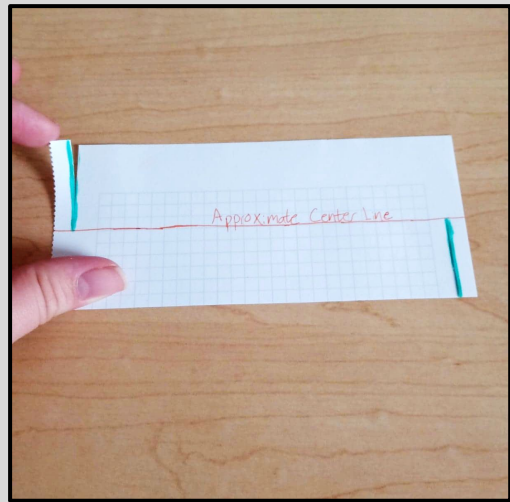
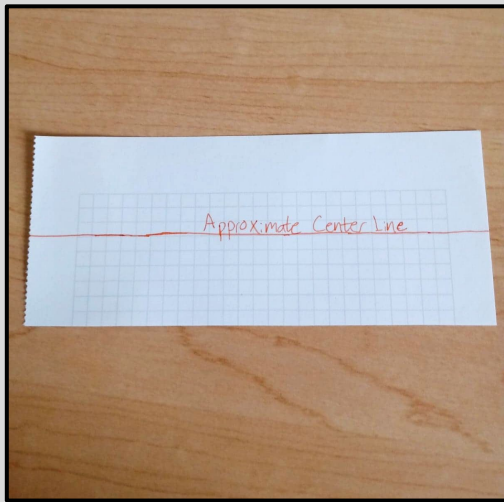




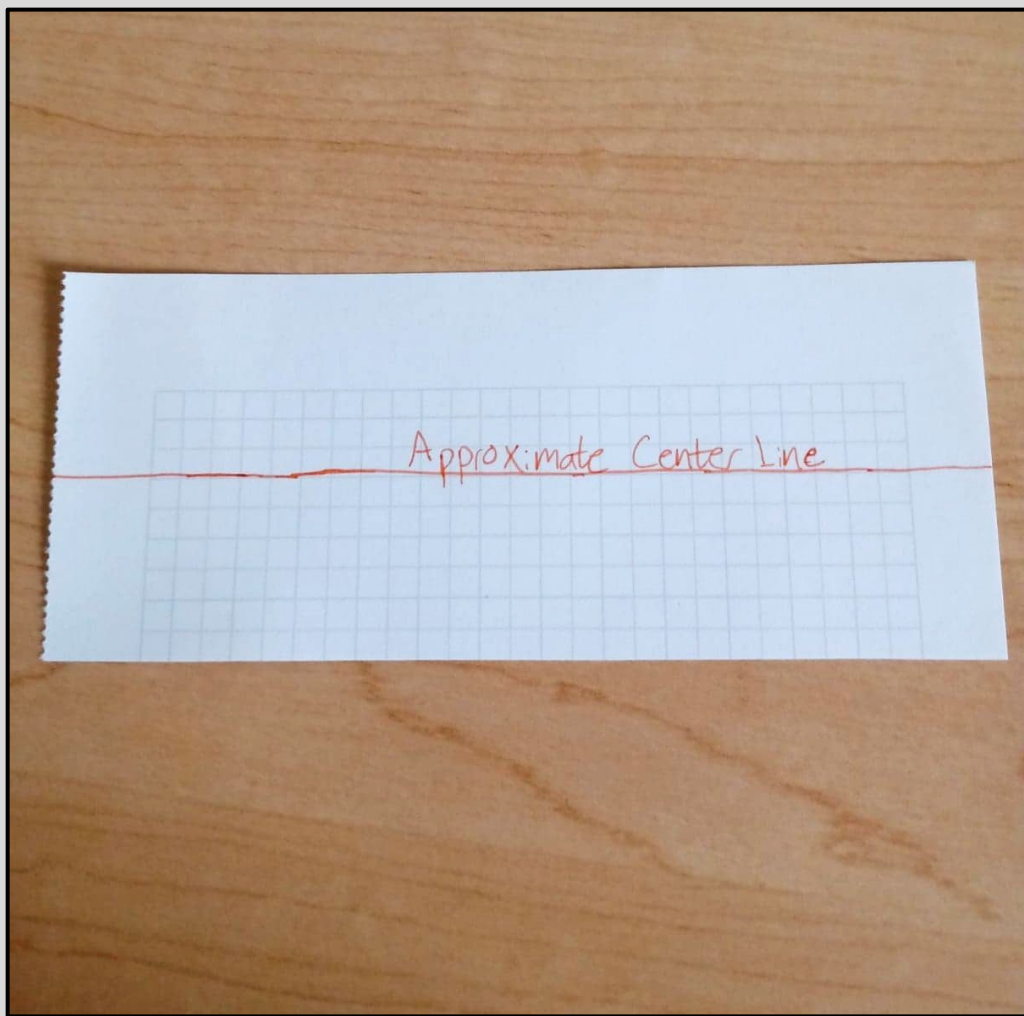
# Connecting Without Tape



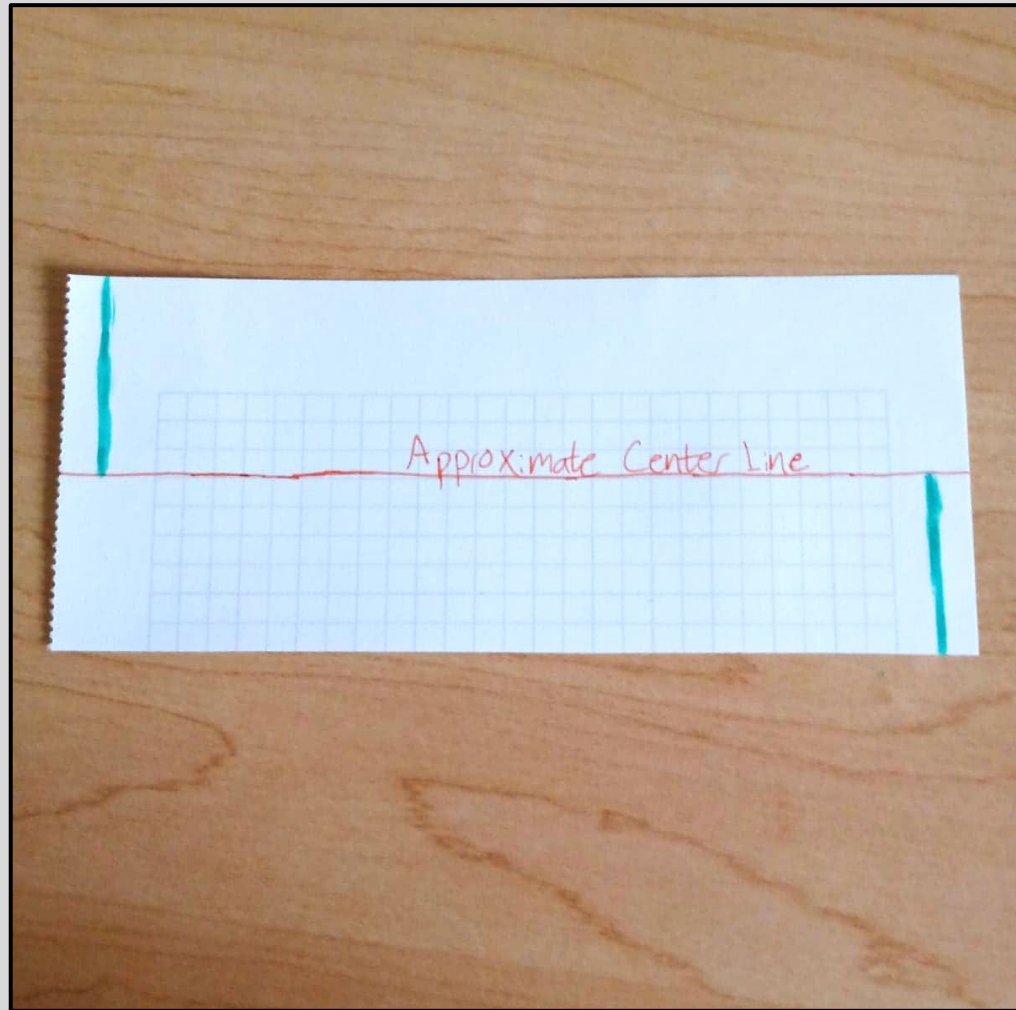




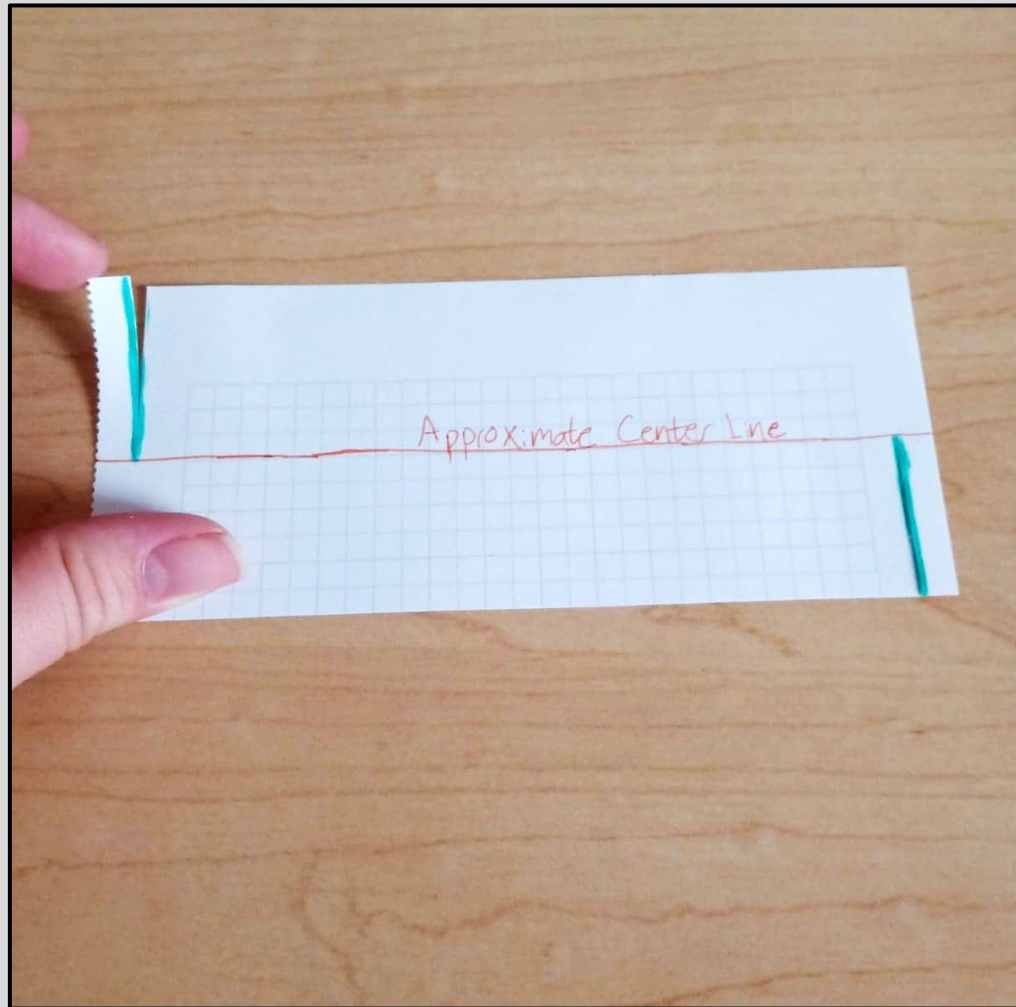
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2

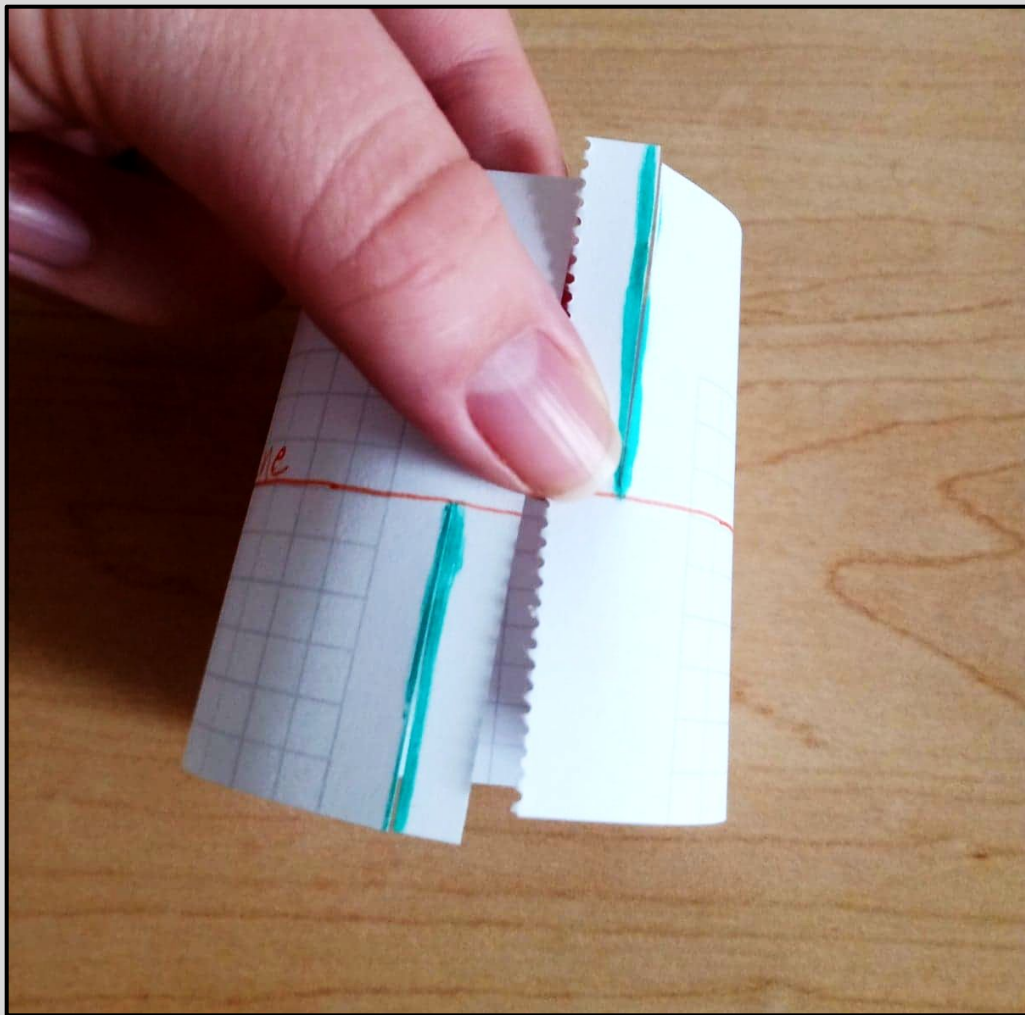


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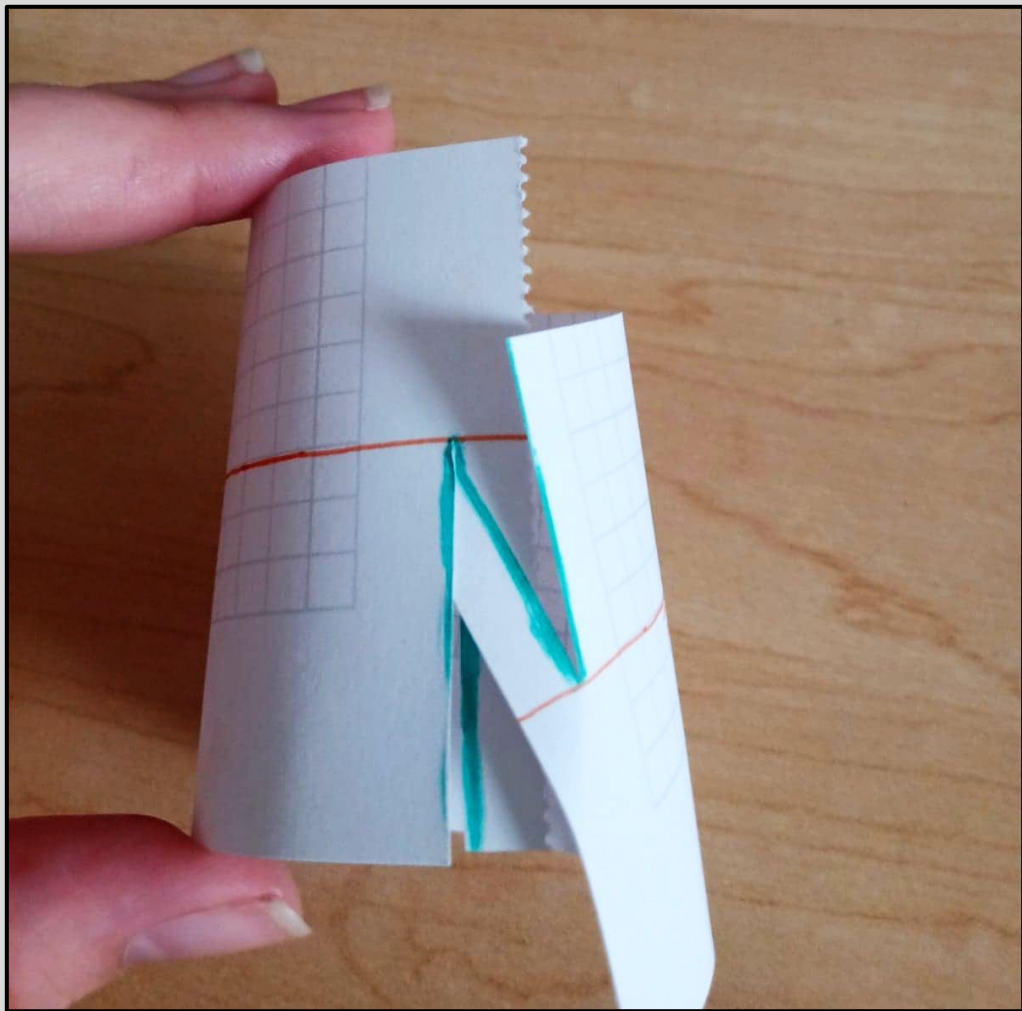




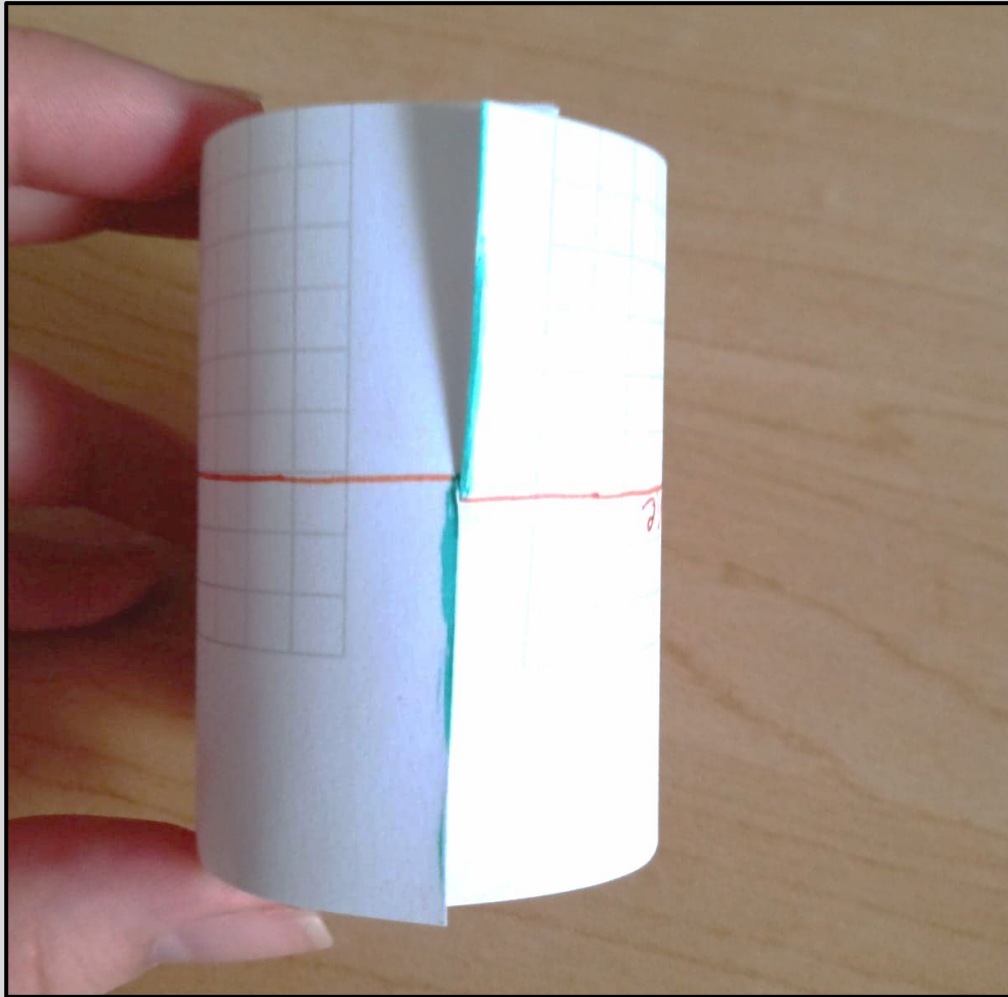
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5

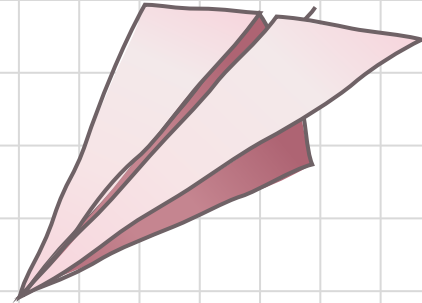
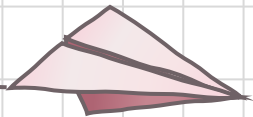


6





# Making a Paper Box

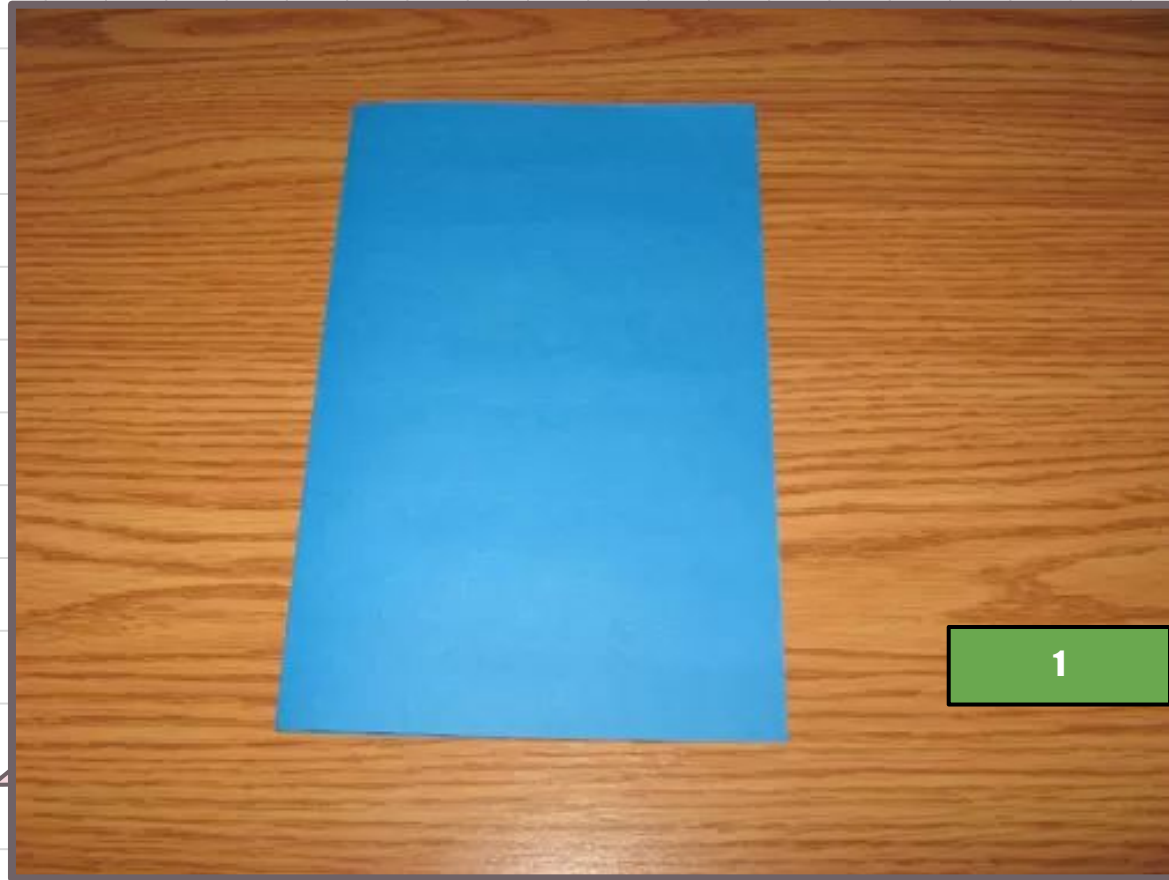


# Story time: No bowls for Cereal?!



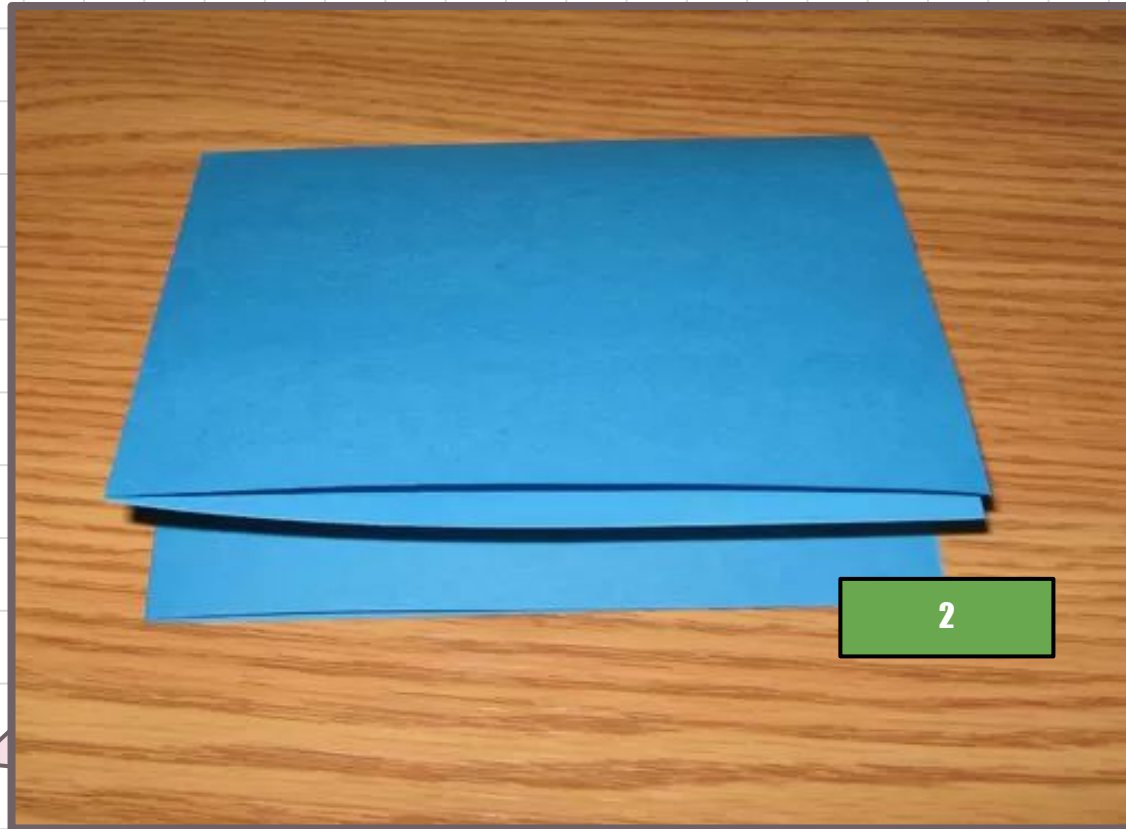
[https://origami.lovetoknow.com/How\\_to\\_Make\\_a\\_Folded\\_Paper\\_Bowl](https://origami.lovetoknow.com/How_to_Make_a_Folded_Paper_Bowl)

# Story Time: Cereal with no bowl?



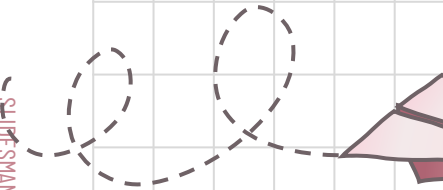
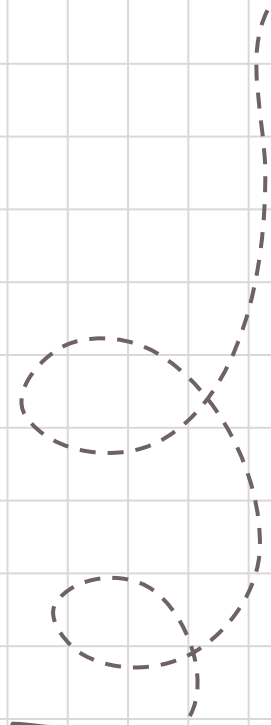
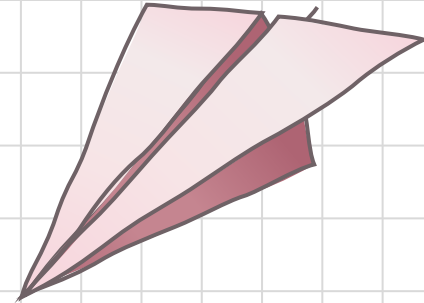
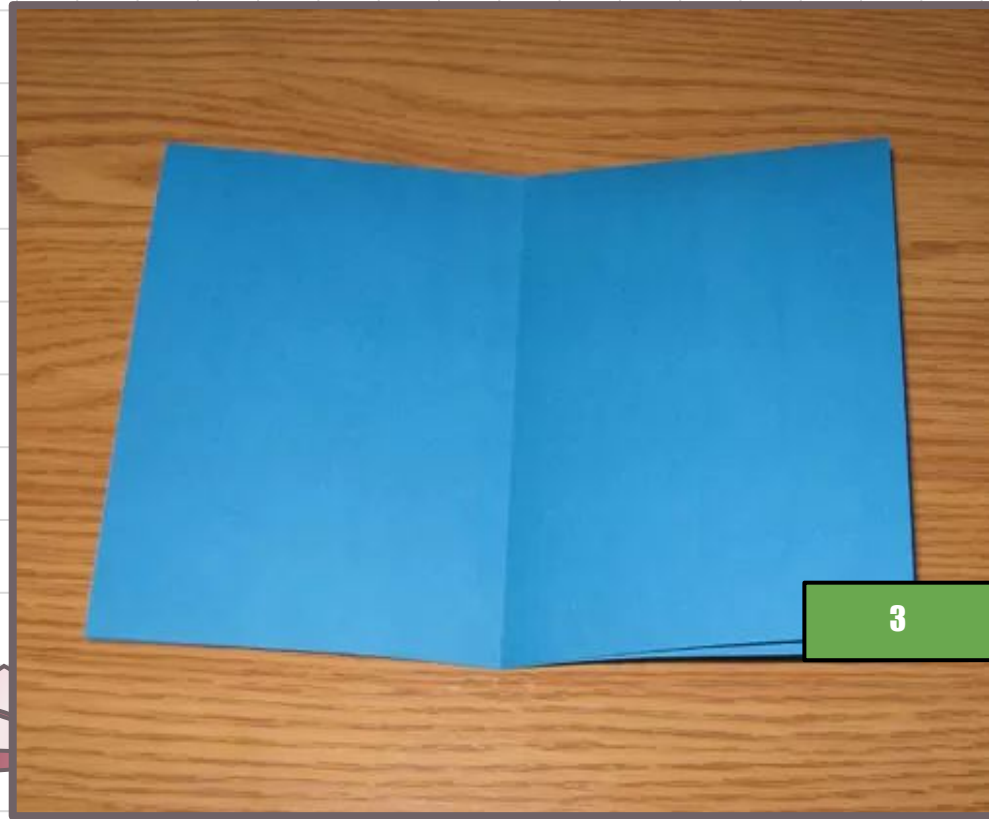
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# Story Time: Cereal with no bowl?

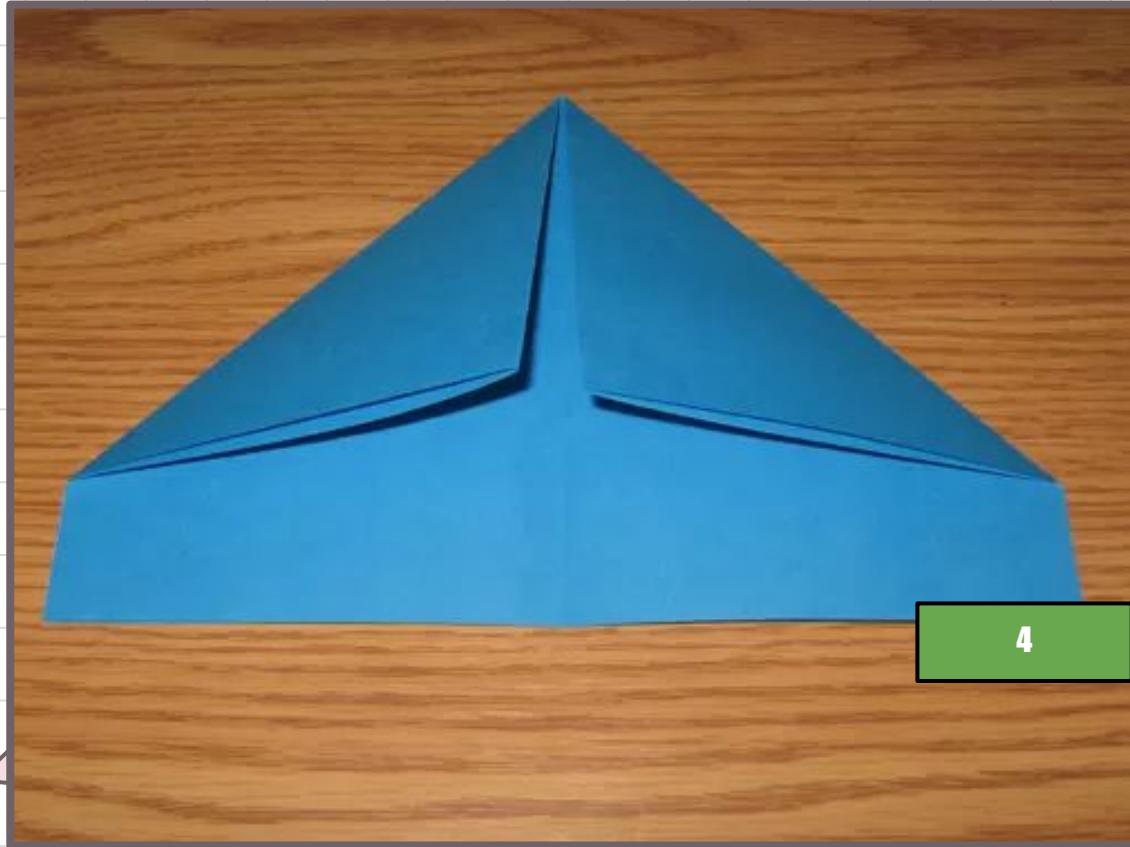


2

# Story Time: Cereal with no bowl?

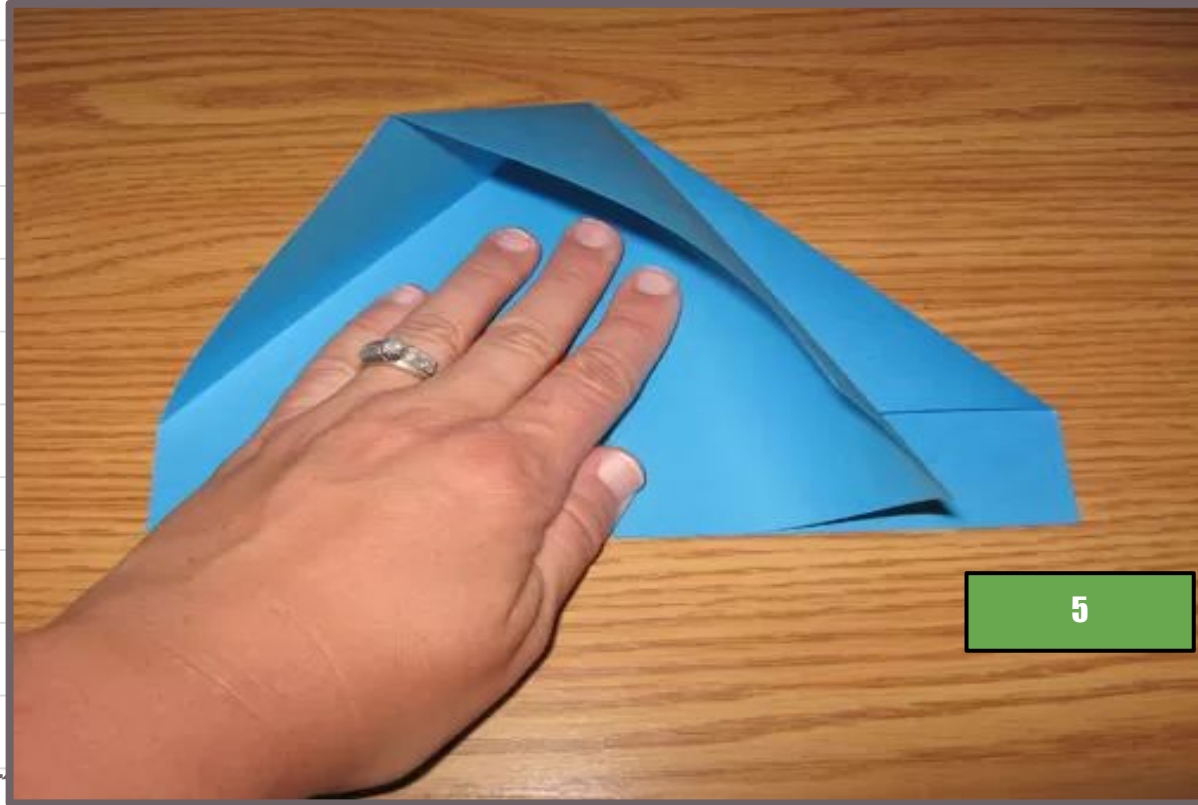


# Story Time: Cereal with no bowl?



4

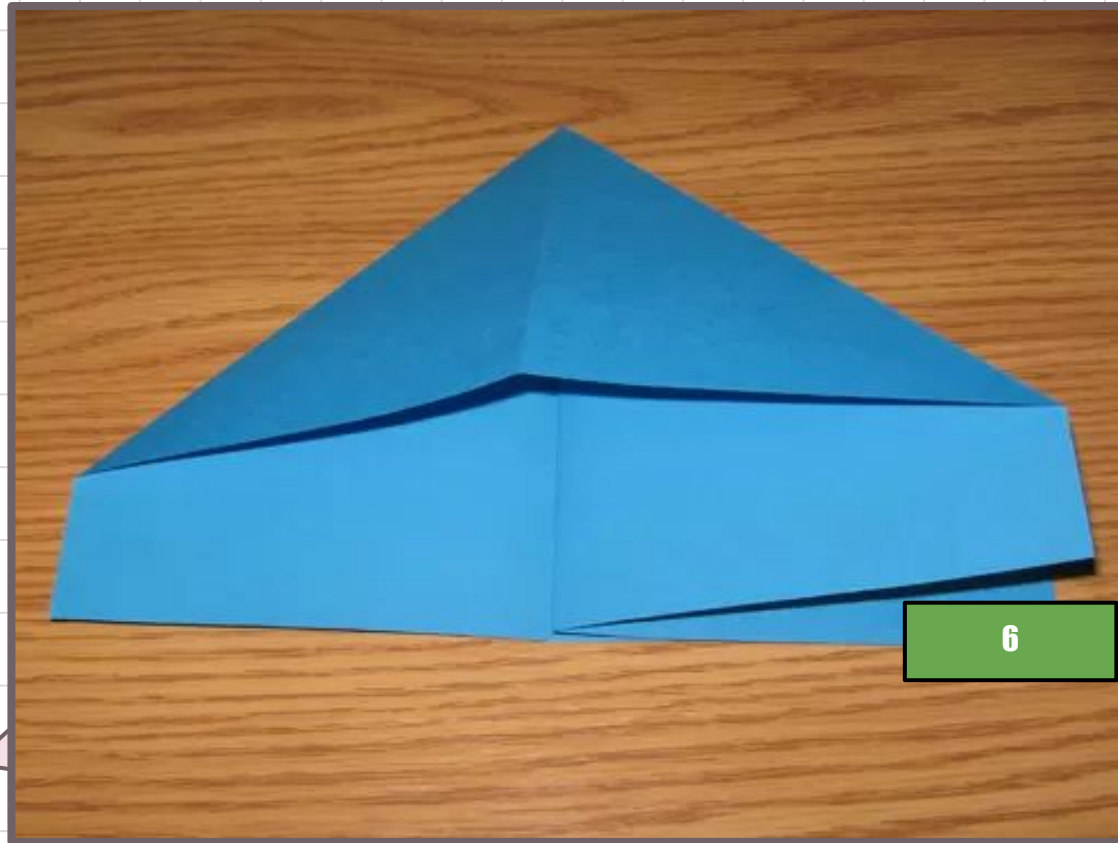
# Story Time: Cereal with no bowl?



5



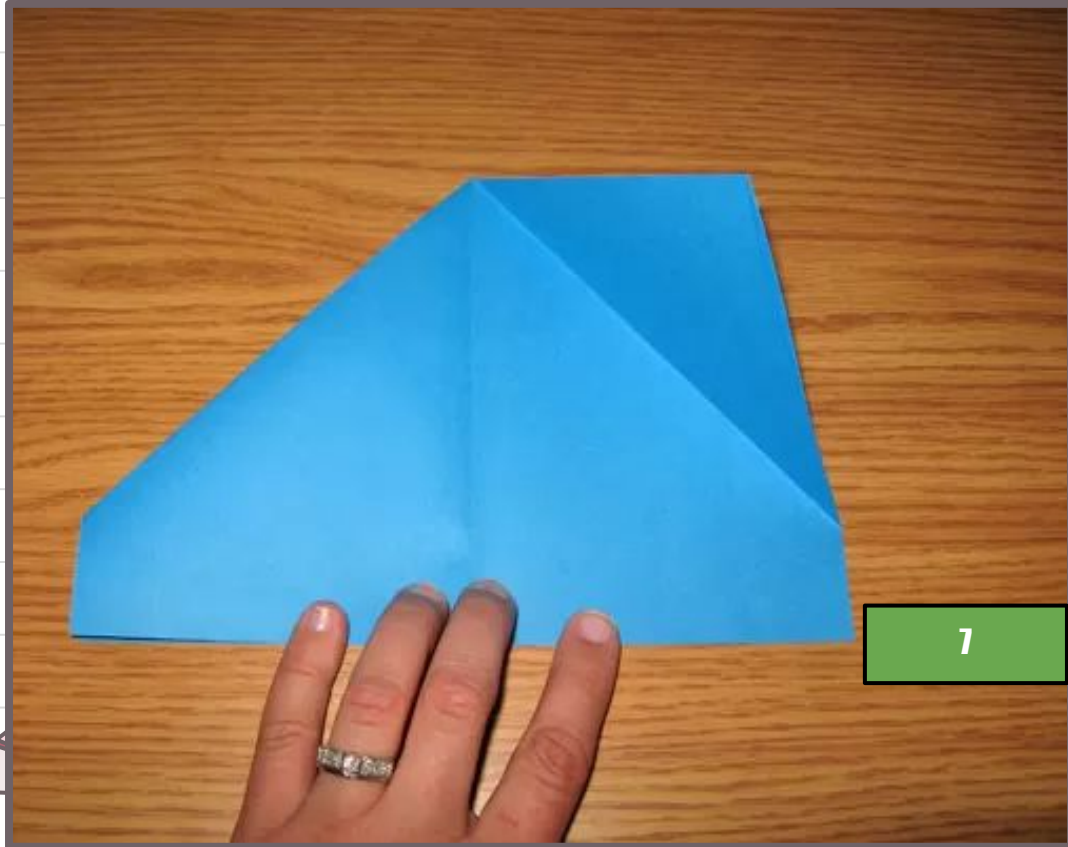
# Story Time: Cereal with no bowl?



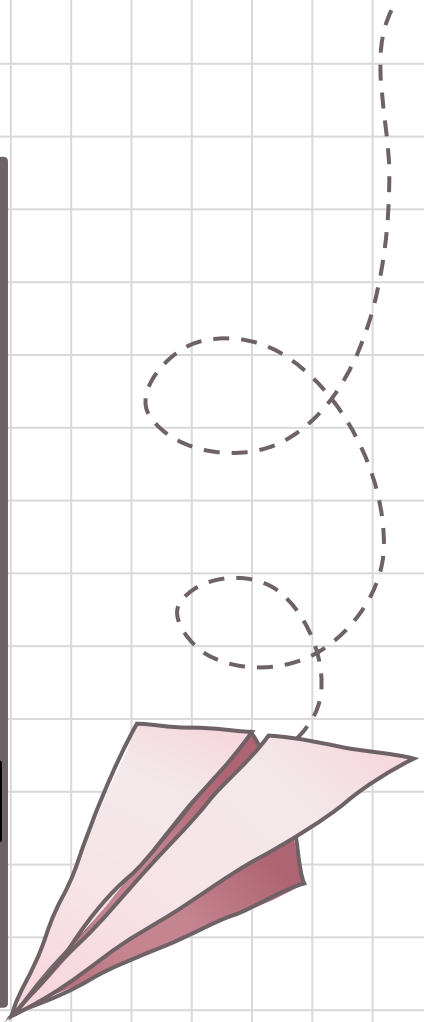
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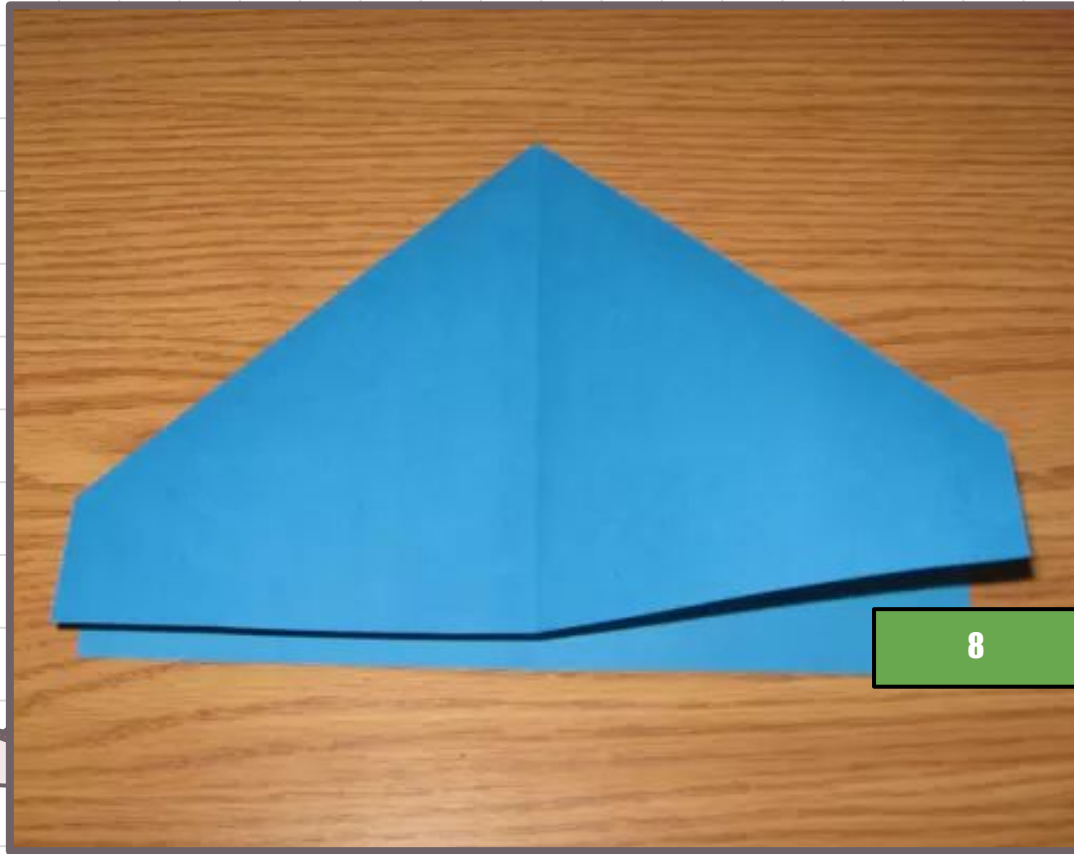
# Story Time: Cereal with no bowl?



7

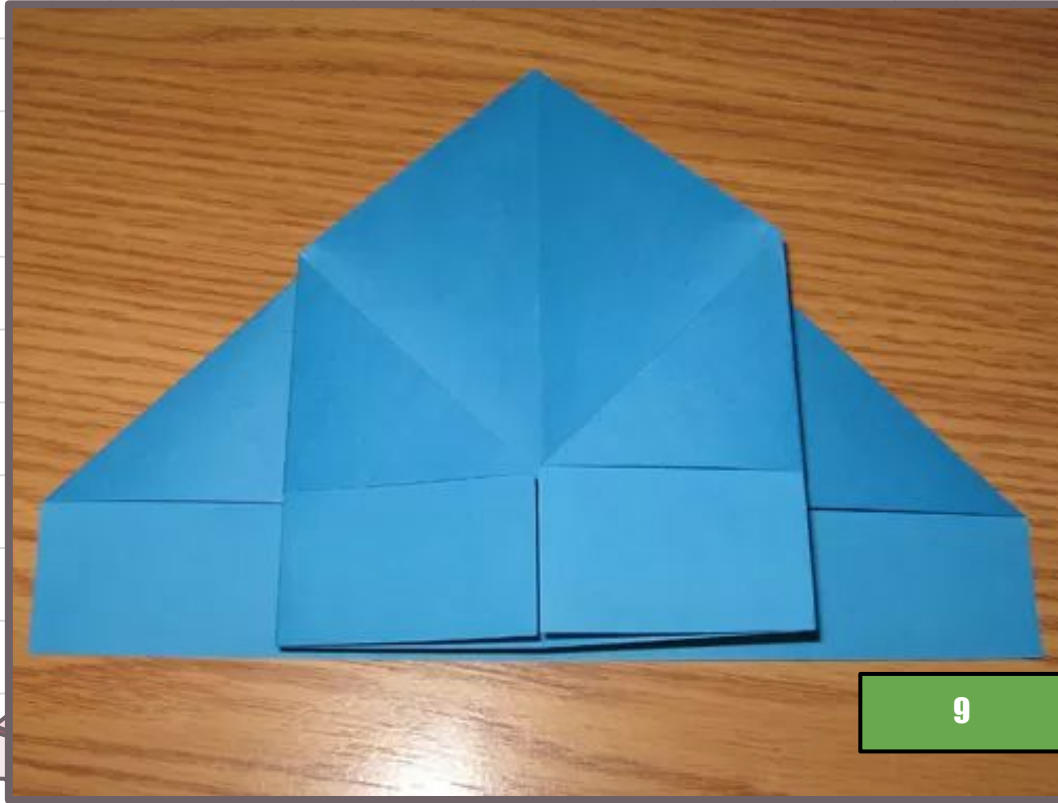


# Story Time: Cereal with no bowl?

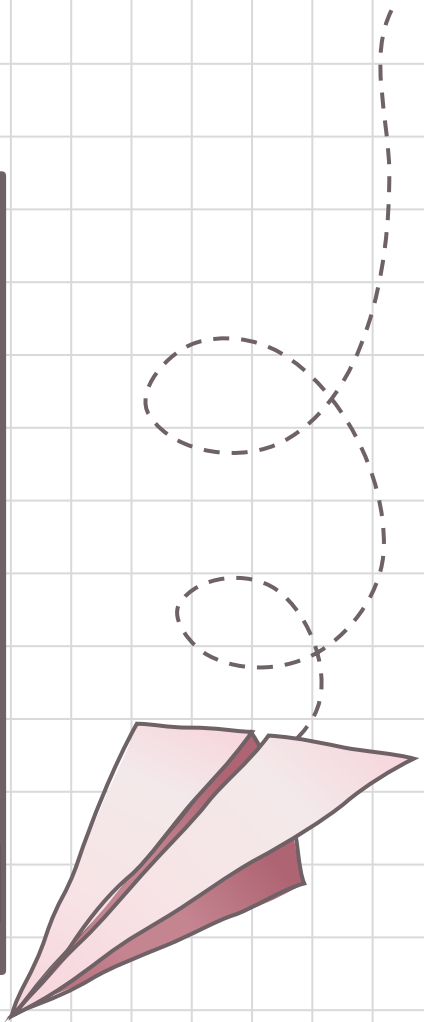


8

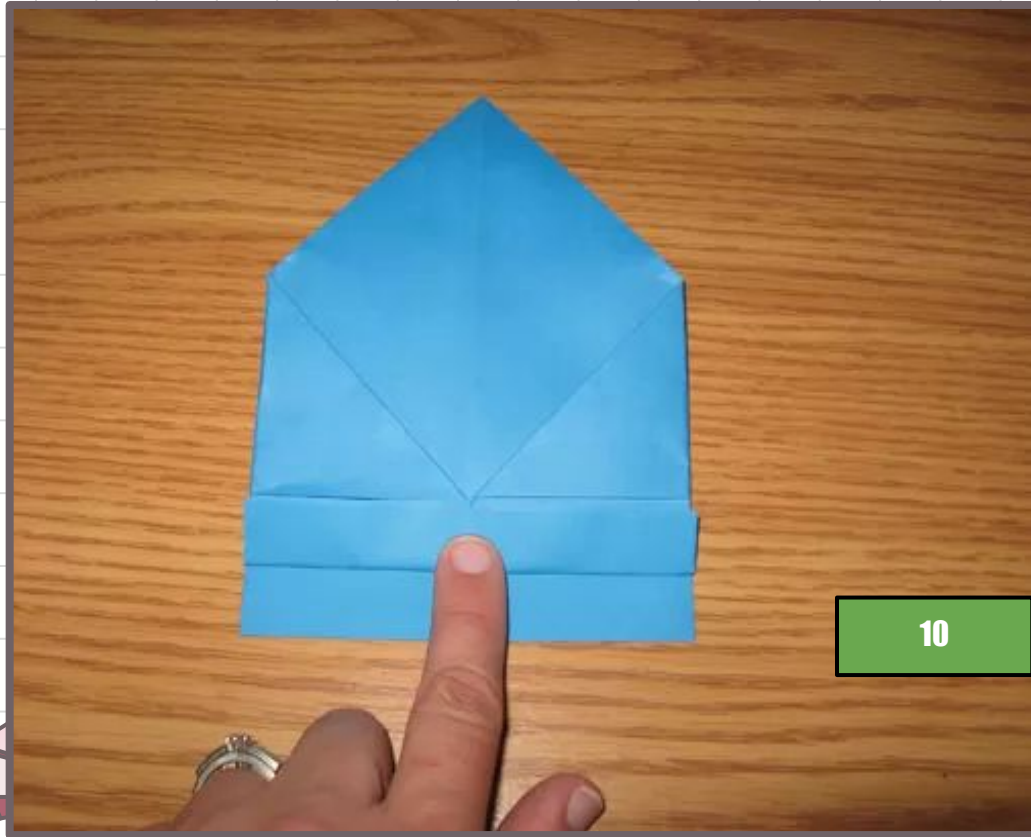
# Story Time: Cereal with no bowl?



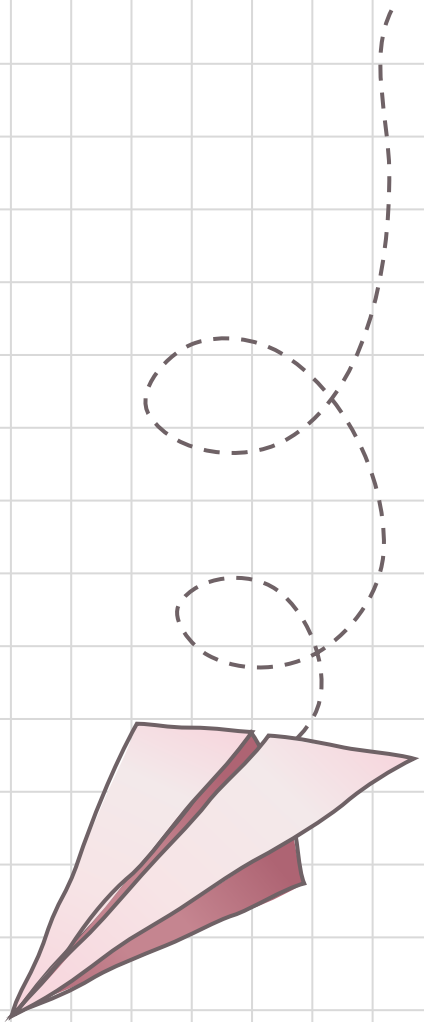
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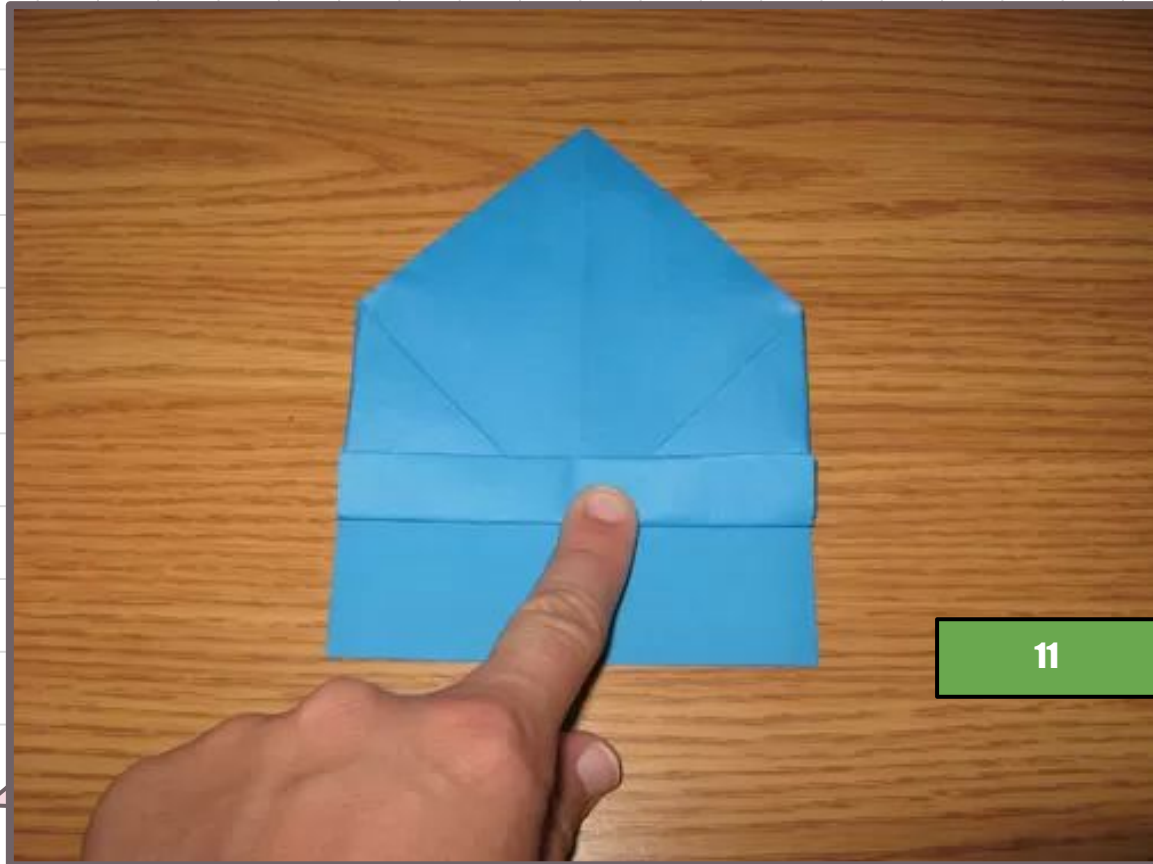
# Story Time: Cereal with no bowl?



10

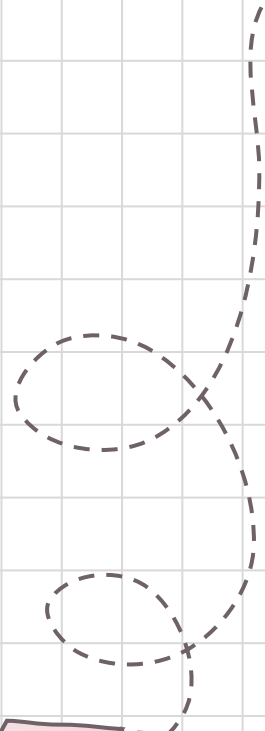
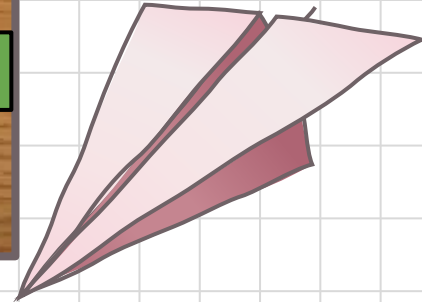
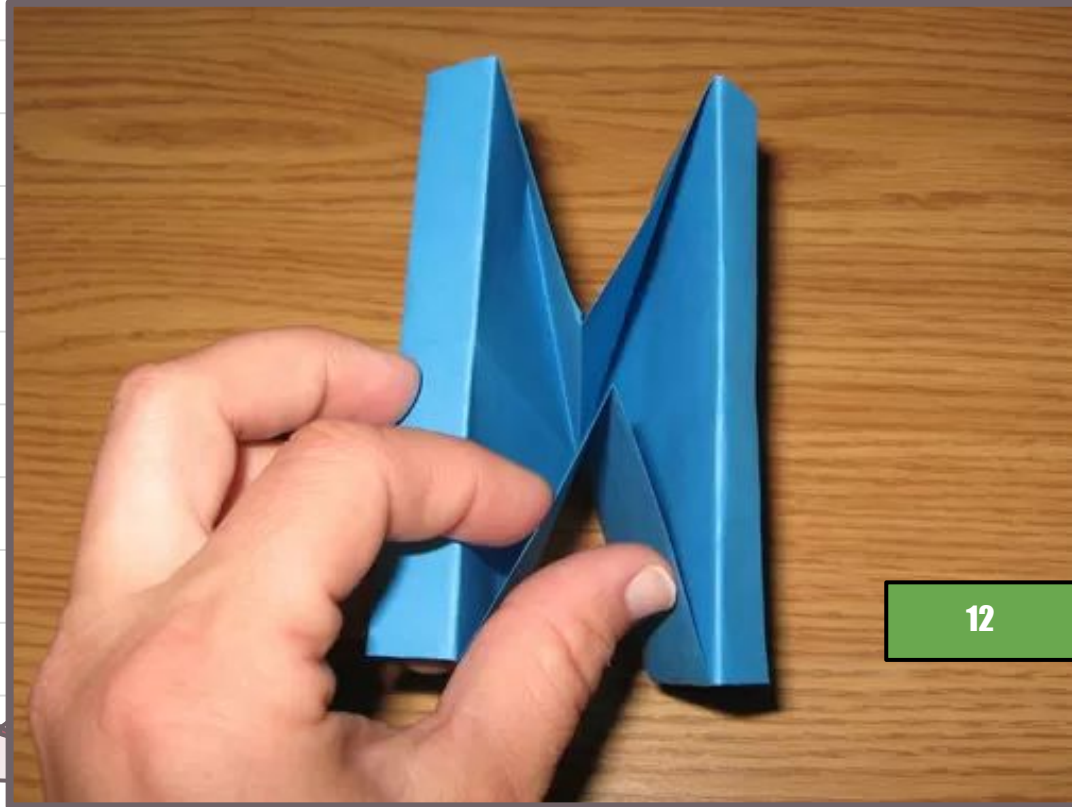


# Story Time: Cereal with no bowl?



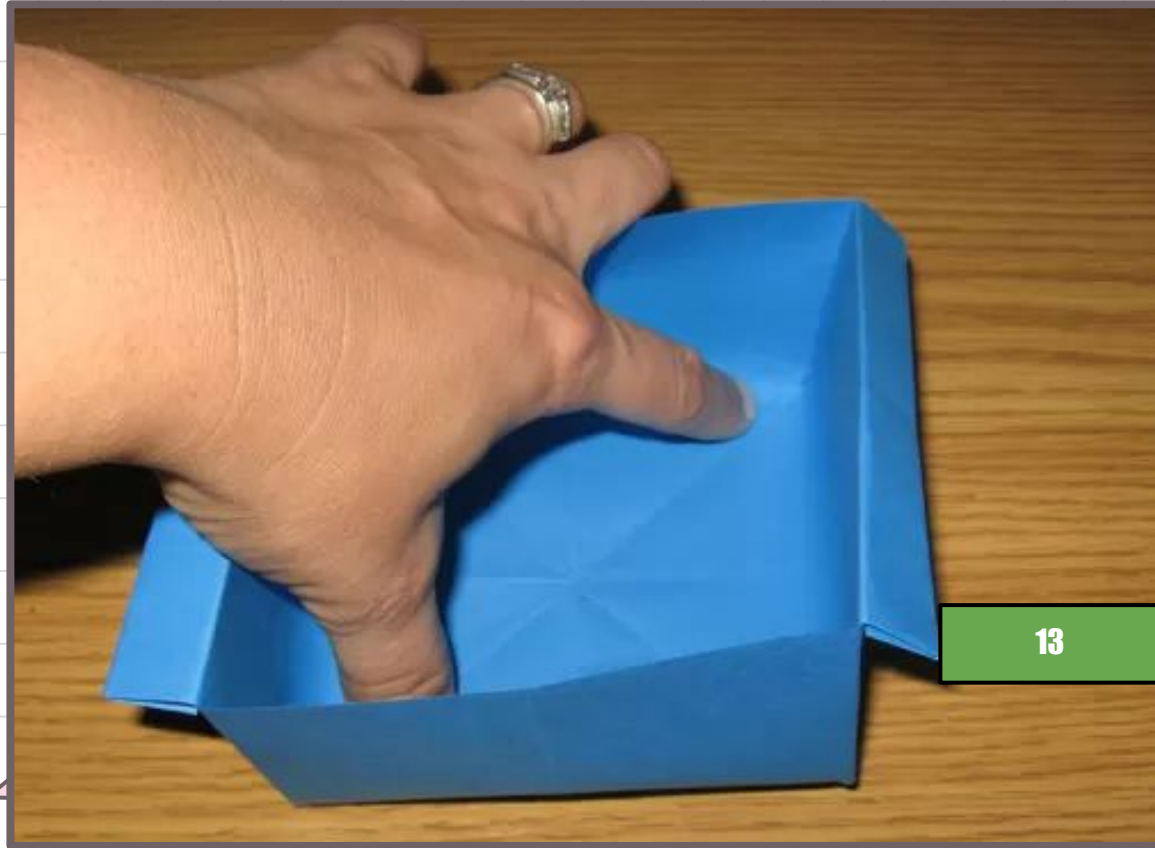
11

# Story Time: Cereal with no bowl?



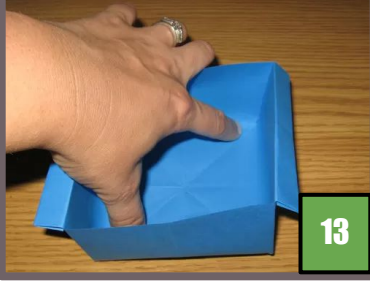
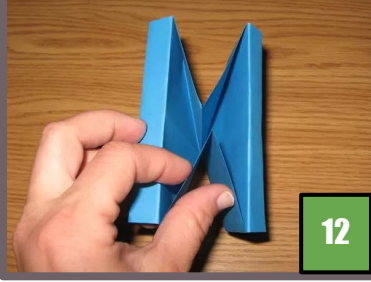
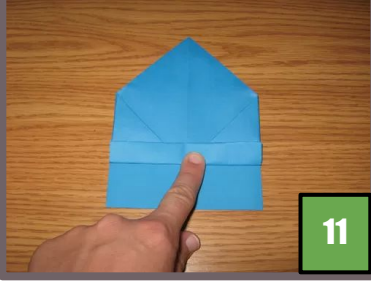
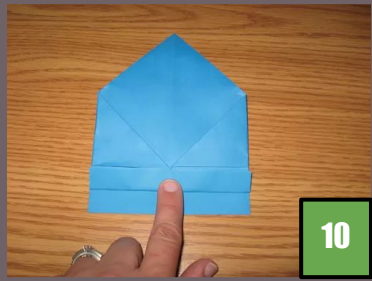
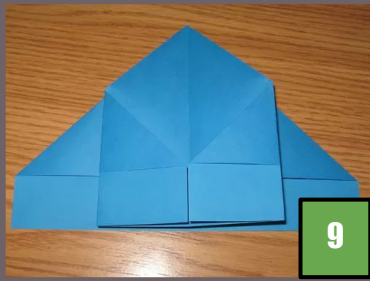
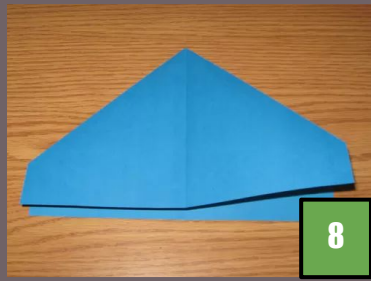
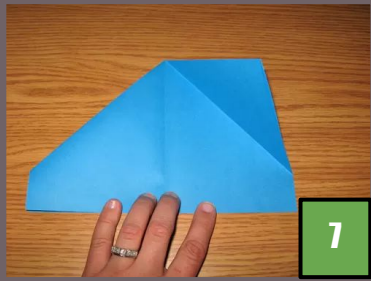
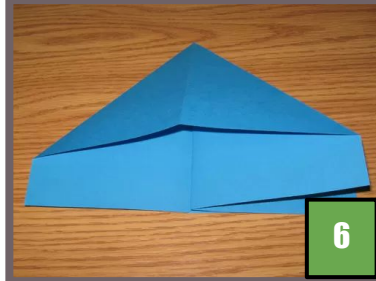
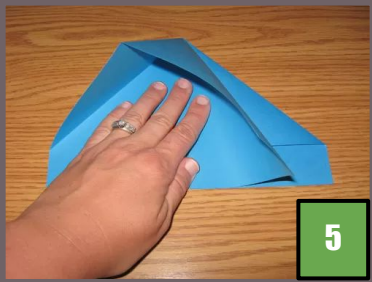
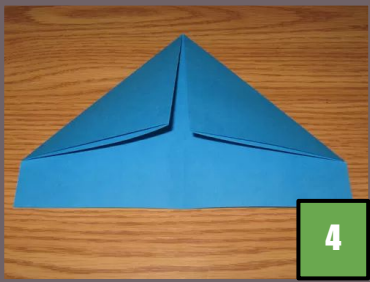
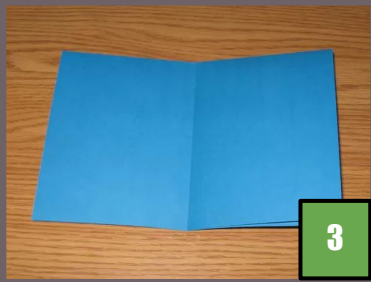
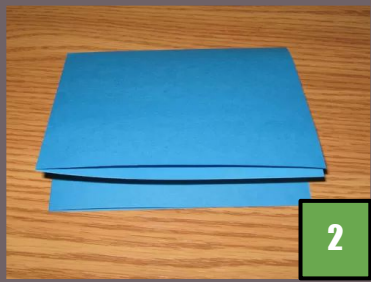
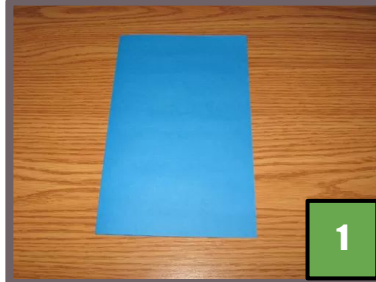


# Story Time: Cereal with no bowl?



13

# Story Time: Cereal with no bowl?





# Paper Design Challenge

## Pick one question:

- What can you design to organize things on a messy table?
- What items do you carry with you everyday? What is something you could design to help you carry those?
- What is something you could design to make it easier to get ready in the morning?

## Elige una pregunta:

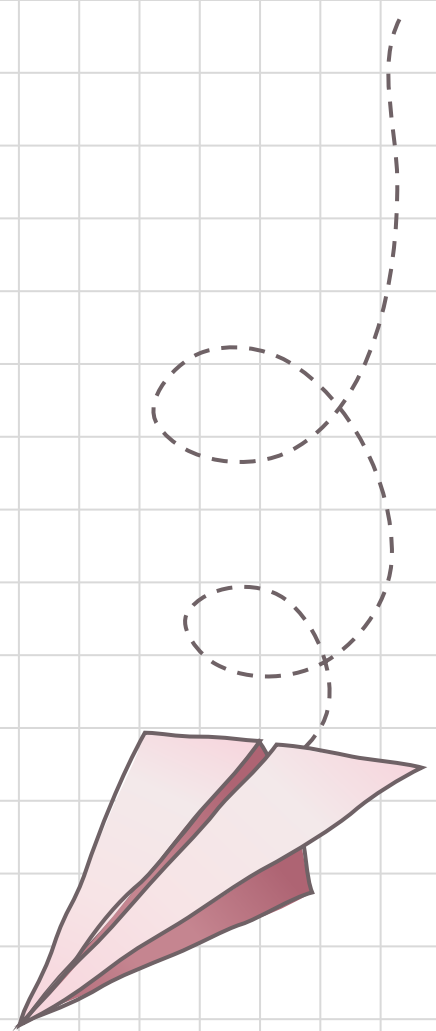
- ¿Qué puedes diseñar para organizar cosas en una mesa desordenada?
- ¿Cuáles cosas te llevas encima cada día? ¿Qué puedes diseñar para ayudarte llevarlas?
- ¿Qué es algo que puedes diseñar para ayudarte levantarte en la mañana?

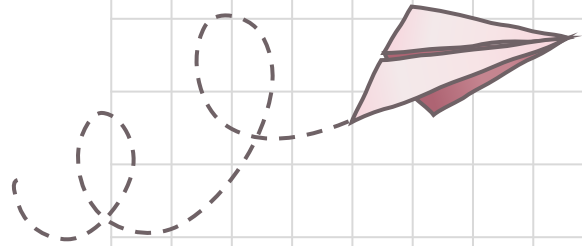
## Things to remember:

- It doesn't need to work ("looks-like" prototype)
- It doesn't have to be to scale (make it tiny if you need to!)
- Have fun! Put questions in the chat!

## Recorda:

- No lo necesita funciona ("se-parece" prototipo)
- No lo necesita ser de tamaño exacto ¡hazlo pequeño si necesitas!
- ¡Disfrútate! ¡Pon preguntas en el chat!





# Key takeaways

**Prototyping** - Making an early model of something

**Sketch model** - A prototype made of low cost materials

**Iterating** - Taking what you learned from testing, and applying it to your next model

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**Prototipando** - Haciendo un modelo principio

**Modelo bosquejo** - Un prototipo de materiales de bajo costo

**Iterando** - Usando lo que aprendiste en las pruebas y aplicándolo en tu modelo proximo

- Prototyping lets us test our ideas
  - When our prototypes don't work we learn
  - Testing and iterating makes our end product better
  - You can do a lot with paper!
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- Prototipando ayudanos a probar nuestros ideas
- Prototipos que no funciona nos enseña algo
- Probando y iterando mejora nuestros productos
- ¡Puedes hacer mucho con papel!