

Ohio State University Extension Medina County CD STEM Outreach

Just Go Fly a Kite!!

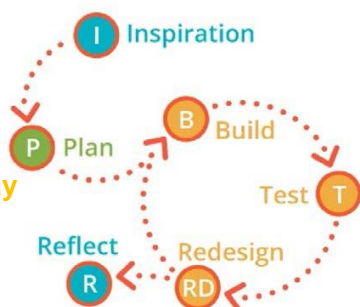
By Sally Hennessy, 4-H STEM Program Assistant, Lorain County Extension, 4-H Youth Development,
The Ohio State University

It's finally SPRING and a great time to get outside and fly a kite!

You don't have a kite? No problem! There are loads of kite patterns, or templates online for you to use as a plan. OR, you could make up your own after learning more about kites. **Let's get started!**

Making a kite is an Engineering Design Challenge. *You've done that before!*

1. an idea
2. plan it one way
3. test it
4. make it another way
5. retest it
6. then wonder...



- What did each step teach me?
- What worked and didn't work?

It's a CYCLE. Redesign and test until you get YOUR desired result!

WHAT makes a kite fly? Let's look at some characteristics that most kites have That enable them to work.

- A **flat surface** the wind can catch to create **LIFT**.
- A **string**, attached in a way that provides **STABILITY**
- One or more **tails** to create **DRAW** and provide added stability.
- A **frame** to provide **Structure** to your design.

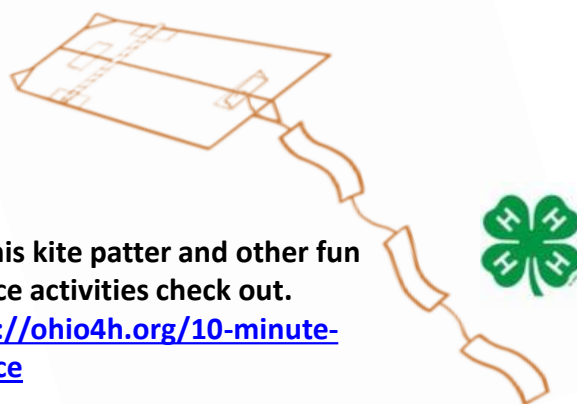
Your challenge: Build a kite of your own then investigate how each of the characteristics of your design work together.

Remember to start with an idea, create, test, redesign, recreate, and retest.

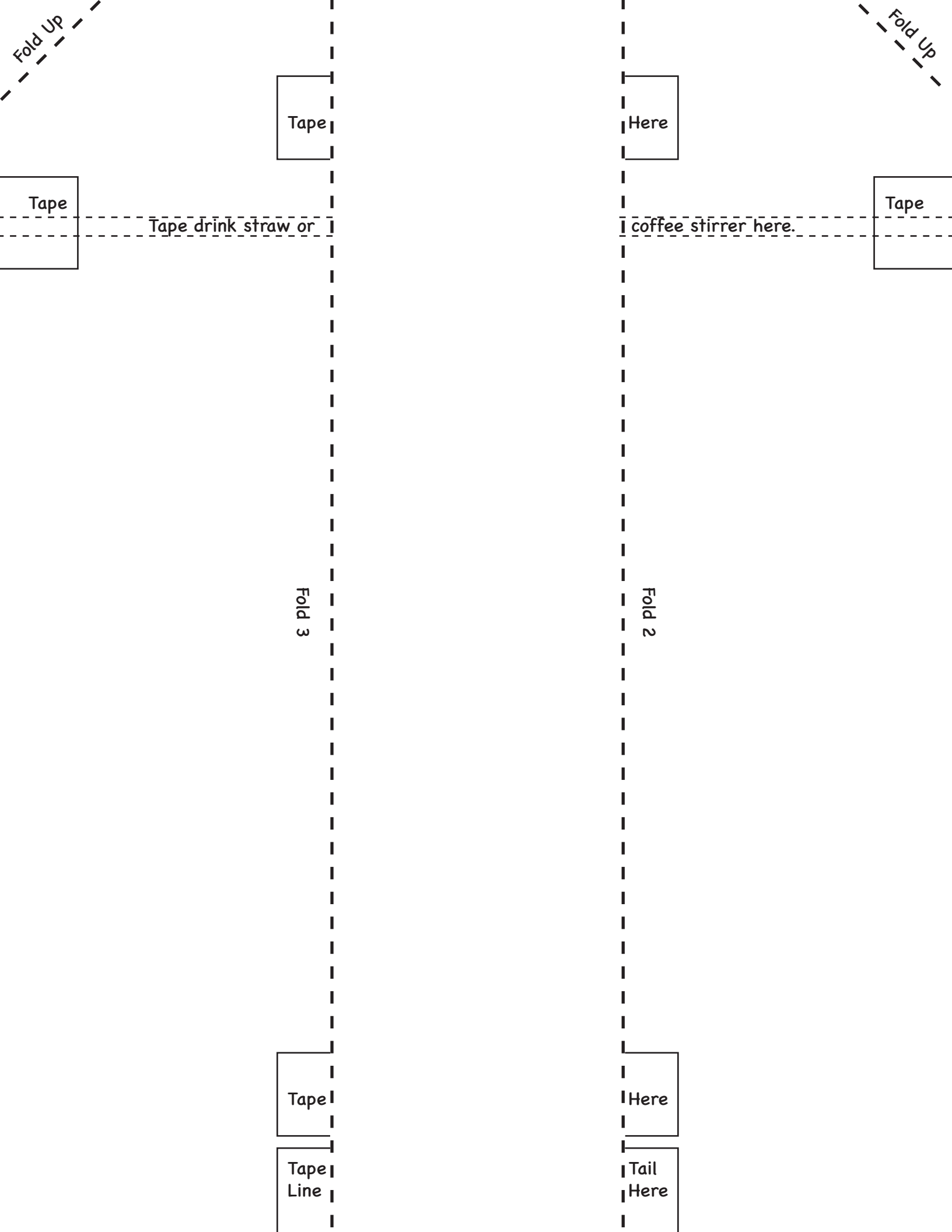
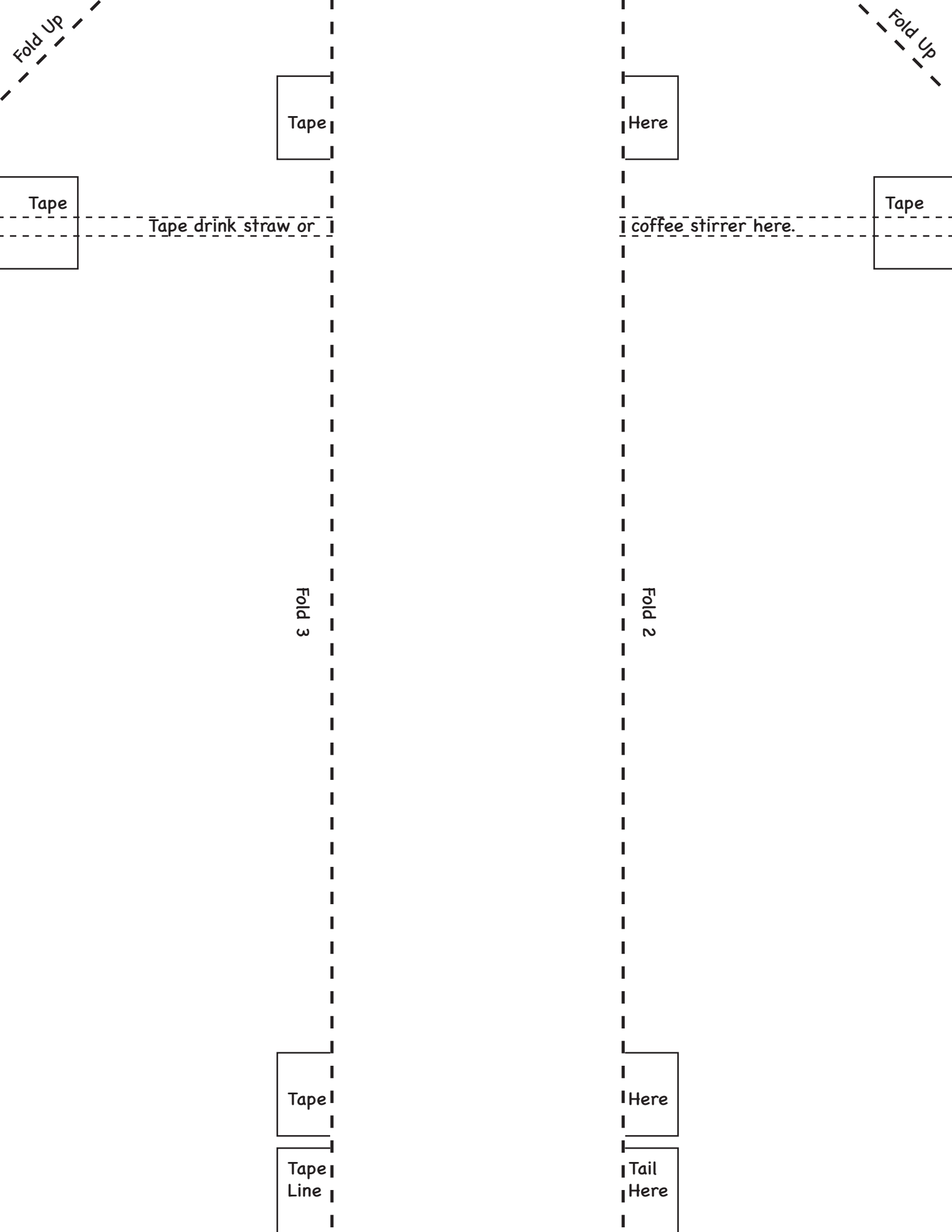
In engineering design, it's all about learning what **DOESN'T** work to guide us to what **DOES** work!
The Engineering Design Process is a cycle.

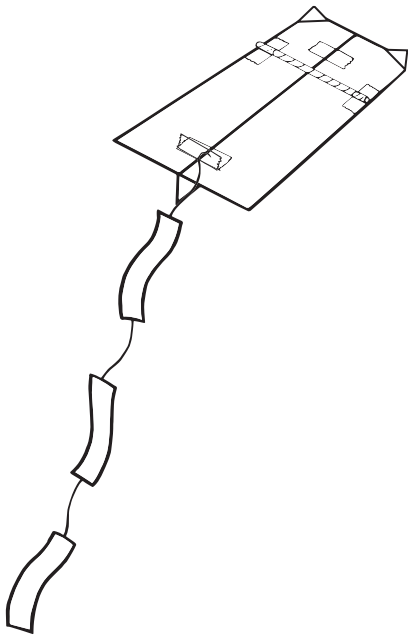
Suggestions for materials: *Get creative!!*

- **Flat surface** – copy paper, wrapping paper, paper bags, plastic bags, trash bags – if not big enough, tape together!
- **String** – cotton string, yarn, fishing string, thick thread – Several yards so you can run, and your kite can fly into the air. Wrap it around a tube, card, or stick.
- **Tail(s)** – plastic cut into strips, ribbon, crepe paper, lightweight fabric strips
- **Frame** – straws – stick and tape the ends into each other to make them longer, BBQ skewers, sticks, dowels, etc.



For this kite patter and other fun science activities check out.
<https://ohio4h.org/10-minute-science>





Fold 1

Punch hole for tow line. ○ ← Attach tow line.

