



# PAPER AIRPLANES

DISCOVERY PLAY ACTIVITIES WITH YOUR YOUNG CHILD



## ABOUT THIS ACTIVITY:

Provide a variety of papers with different sizes, textures, and weights and invite your child to investigate how different materials and folding designs change how the paper airplane moves through the air.

Encourage your child to notice and record how fast, how high, and how far the paper airplane design behaves.

Help them to think about this data and then make improvements on their designs to get the paper airplane to fly even faster, higher, or farther.

## STEM LEARNING AREAS:

**Engineering:** Figuring out how things work and using materials to design, build, test, and improve solutions to problems

**Physical Science:** Concepts related to objects or things, what they do, and how they move

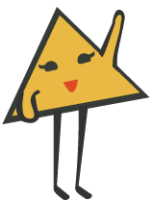
- **Forces & Motion:** Concepts related to objects moving, how they move, and how to make them move
- **Structure & Properties of Materials:** Understanding characteristics of things and how those characteristics impact what things do

**Math:** Concepts related to numbers, patterns, shapes, and space, and how to use them to solve problems

- **Spatial Orientation:** Understanding the relationships between different positions of objects or things

## WHAT DO I NEED?:

- Variety of papers (size, texture, weight/thickness)



## WHAT CAN I TALK ABOUT?:

- Forces & Motion: Fast/Slow, Fly, Collide
- Textures
- Engineering: Plan, Test, Reflect, and Revise
- Spatial Orientation: High/Low, Close/Far

## WHAT CAN I ASK?:

- What would happen if we fold the paper airplane in a different way?
- Which type of paper do you think will fly faster? Higher? Why?
- Which design can make the paper airplane fly further? Why?



# PAPER AIRPLANES

ADAPTATIONS FOR DISCOVERY PLAY ACTIVITIES WITH YOUR YOUNG CHILD

Every child is different. Do what works best for encouraging your child's independent exploration during this suggested playtime activity. These are only suggested activity adaptations. Consider consulting your child's care team first.



Follow your child's lead and interests. Enthusiastically ask your child questions about what they are doing and what they like.



Answer your child's questions. If you do not know the answer, work together with your child to discover the answer.



Encourage your child to participate in the activity as much as possible. Praise your child's efforts and successes.

---

## ENVIRONMENT

- If possible, limit background noise & distractions
- If outside, wear sunglasses and hat if sensitive to bright light
- Use assistive devices (power wheelchair, walkers, crutches), to help the child move around
- Place objects within reach
- Use a reacher or grabber to pick up the airplane off the ground

## MATERIALS

- Have child's assistive technology ready and available, including augmentative & alternative communication (AAC) device
- Draw the folding lines or arrows to help the child determine the location of the folds

## INSTRUCTION

- Use a variety of methods of communication (sign language, gestures) to meaningfully engage children
- Use pictures or icons to signal next steps (see following page)
- Make the fold and the child makes the crease
- Model and demonstrate how to hold a paper airplane



### Need visual cues?

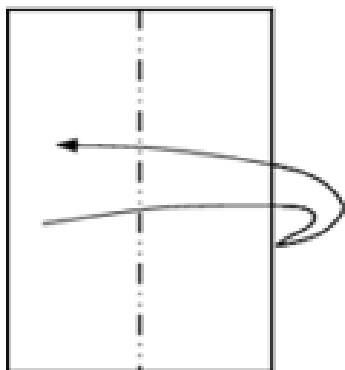
Visit [STEMIE's Visual Cue Library](#) or check out STEMIE's tips for creating and using visual supports with [A Guide to Visual Supports](#).



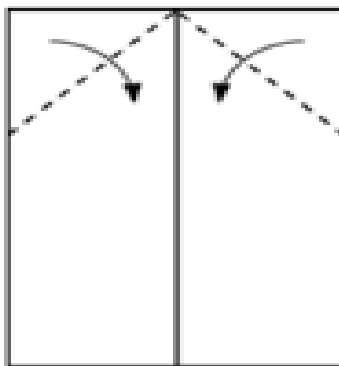
# PAPER AIRPLANES

VISUAL CUES FOR DISCOVERY PLAY ACTIVITIES WITH YOUR YOUNG CHILD

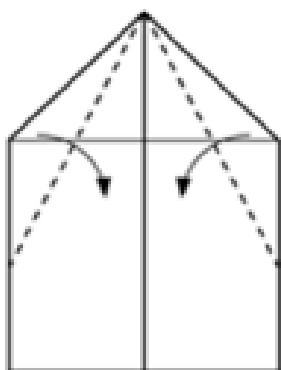
①



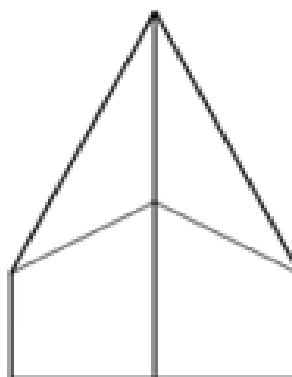
②



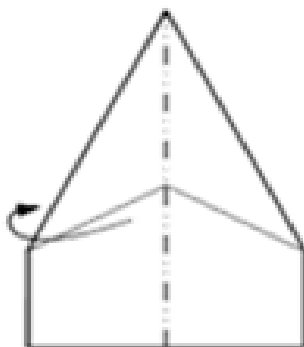
③



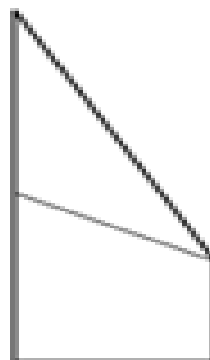
④



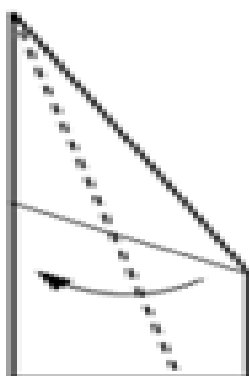
⑤



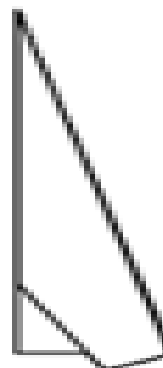
⑥



⑦



⑧



Credit: Wikipedia



# PAPER AIRPLANES

ACTIVITY IDEAS FOR DISCOVERY PLAY ACTIVITIES WITH YOUR YOUNG CHILD

## ADDITIONAL ACTIVITY IDEAS:

- Set up a start and finish line to test flight distance
- Decorate the paper with paint, crayons, or coloring pencils before folding into a paper airplane
- Talk with the child about what happened each time the plane flies and how they might be able to change it. Encourage the child to document their plans in some way.
- Visit your local airport observation deck
- Check out these great books about planes:
  - *The Big Book of Airplanes* by DK
  - *Amazing Airplanes* by Tony Mitton & Ant Parker
  - *Airplanes: Soaring! Diving! Turning!* By Patricia Hubbell

