

KEEP EXPLORING MATH WITH PAPER AT HOME!

You can use paper to explore math ideas and problem solving in fun ways! You don't need any fancy materials – even scrap paper, magazines, or newspapers will work! It's great to do activities like these together with your child because having conversations about math helps kids learn.

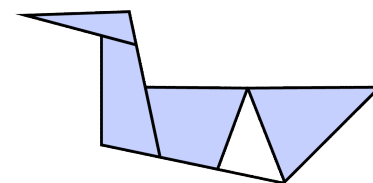
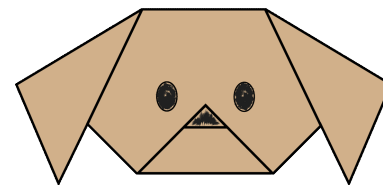
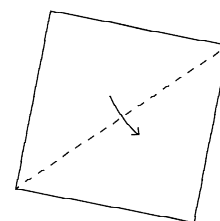
KEEP GOING WITH ORIGAMI!

Origami is great for thinking about shapes and describing space using position and location words. The same sheet of paper can look completely different depending on where and how it gets folded!

As you work together, help your child notice the shapes and think about space. For instance:

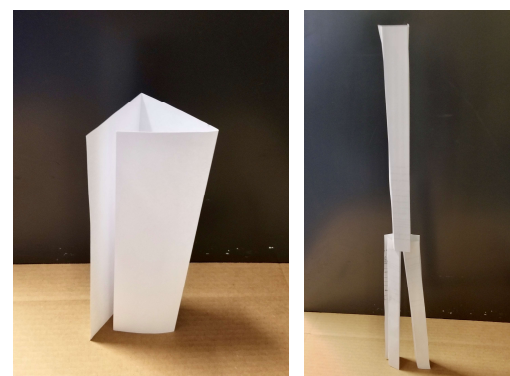
- Talk about directions of folds to help plan what you are doing. "First we fold the paper on the **DIAGONAL**. What does that mean?"
- Point out shapes you notice as you fold the paper, and ask your child if they see other shapes. "What **SHAPE** are the dog's ears? They have **THREE SIDES**, so that means they are **TRIANGLES!**"

You can make up your own origami, too! Challenge your child to create directions for you or another family member to follow.



PAPER TOWER CHALLENGE

Can you build a tower out of paper? How can you make the tallest tower possible using just one sheet of paper? (Hint- you can cut the paper into multiple pieces!)



MAKING THE MOST OF MATH TALK

When having math conversations, children learn the most when families:

Ask Questions: Encourage children to talk about math by asking them questions.

Compare and Contrast: Talking about similarities and differences. "Your tower is **TALLER** than mine, but they are the **SAME WIDTH.**"

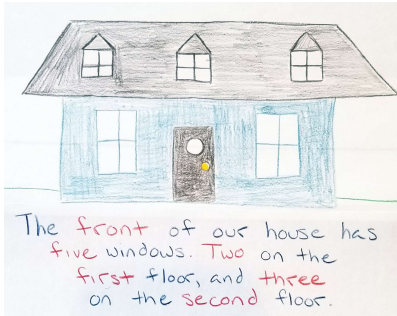
Point and Gesture: Using your hands helps children connect what they see and hear. For example, run your finger along the crease while talking about folding on the diagonal.

D R E M E

Find more of our Math With Paper ideas and more about family math here:

dreme.stanford.edu/mathfest

MAKE A MATH STORYBOOK

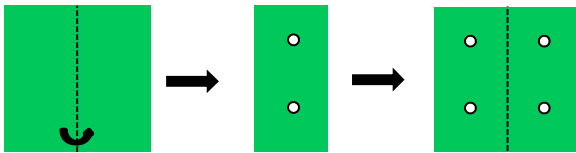


You can use paper and some pens, pencils, or crayons to make a book that tells a math story. Here are some ideas for how to tie math into a story:

- **Math in Your Home:** Describe your family and home using numbers, space, and shapes. **HOW MANY** people are in your family? **HOW MANY** grownups are there and how many children? What floor do you live on, or on what floor is your bedroom? What room is the **LARGEST** or **SMALLEST**? What **SHAPES** are different tables in your home?
- **Arithmetic Adventure:** Write a story involving **ADDING** and **SUBTRACTING**. Maybe a character is out for a walk and meets some friends- **HOW MANY** people are there now? What if one friend then has to go home?
- **Shape Journey:** Imagine a character exploring a land of shapes or an obstacle course made of shapes. Describe what they encounter and how they move around. Do they have to go **THROUGH** a city of **PYRAMIDS** or **AROUND** an **OCTAGON** pond?

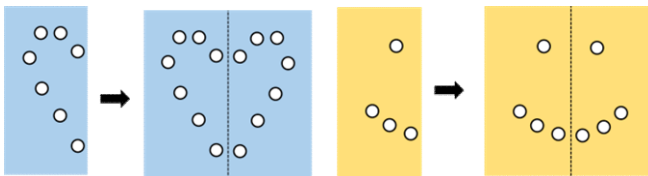
PRACTICE BEING A PAPER MATH WIZARD

This activity helps kids think about number *and* space. They have to imagine what the paper will look like unfolded and think about how many times it has been folded.



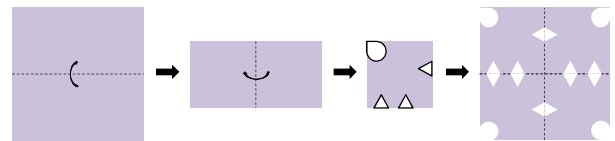
Get Creative!

Try different designs using a hole puncher.



Go Even Further

If you have scissors, you can make snowflakes, flowers, or stars! Fold a square piece of paper in half and then in half again, and cut a shape along the edge. What shape will it be when you unfold it? How many shapes will there be? Try cutting more shapes, or folding the paper along the diagonal to see how that changes it!



MATH VOCAB GOES BEYOND NUMBERS AND SHAPES

Math talk includes words that describe and compare quantities (**MORE, SAME, EVEN**), words that describe objects (**ROUND, LONG, SYMMETRICAL**), and words that describe locations and orientations of objects and space around them (**NEAR, ABOVE, PERPENDICULAR**). And this math talk can help children learn and think about math.