

# ACTIVITY 1

In this activity, you'll learn about the different kinds of **fingerprints** humans have, and you'll also see if you can figure out the type of prints you have!

Fingerprints are marks left on a surface from the tip of your finger.

## LET'S MAKE



## WHAT YOU'LL NEED

### INCLUDED

#### INK PADS



#### PAPER



#### MAGNIFYING GLASS



### NOT INCLUDED

#### BABY WIPE OR SOAP AND WATER TO CLEAN OFF INK FROM FINGERS



**\* BEFORE YOU START WORKING, ASK AN ADULT WHERE YOU SHOULD USE THE INK PAD. THE INK CAN BE HARD TO CLEAN, SO BE SURE TO USE IT ONLY WHERE INSTRUCTED.**

### STEP 1

Practice making fingerprints on a piece of paper. Open your ink pad and place a blank piece of paper next to it.



### STEP 2

Choose one finger to start with. Press your **fingertip** onto the ink pad firmly and then place that fingertip onto the paper. After you put your fingertip on the paper, don't move it around – just push it down on the paper and then lift it straight up!



Your fingertip is the top of your finger – it's the skin on the opposite side of where your nail is.



### STEP 3

When you're done practicing with that finger, clean it off with a baby wipe or soap and water. Make sure all the ink is cleaned off your finger before you touch anything!



### STEP 4

Try out another finger and repeat the steps above.



## STEP 5

After you've practiced and see that your fingerprints are clear, stamp each finger in the chart below.

### LEFT HAND



### RIGHT HAND



### LEFT HAND

THUMB	FOREFINGER	MIDDLE FINGER	RING FINGER	PINKY

### RIGHT HAND

THUMB	FOREFINGER	MIDDLE FINGER	RING FINGER	PINKY



## STEP 6

Human fingerprints are one of the following patterns:



**LOOP**



**ARCH**



**WHORL**



Use the magnifying glass to compare your fingerprints to the examples. They probably won't match these examples exactly, but your fingerprints should be similar. Can you figure out which pattern best matches the prints from your fingers? Each finger might have a different pattern.

## STEP 7

Have each of your family members ink their fingerprints onto a separate sheet of paper. Compare your fingerprints to their fingerprints. Are their fingerprints similar to or different from yours?

Le...



# THINK ABOUT IT

How do you think detectives use fingerprints to solve crimes? Write or tell a story about a detective who finds fingerprints at a crime scene and uses them to solve the mystery.

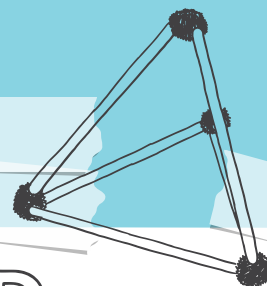
Fingerprints are not the only way investigators and the police solve crimes. What other things do you think they use to know who committed a crime?



# ACTIVITY 1

If you look around at the structures in your home and outside, you'll see that structures are made up of shapes, or polygons. In this activity, we're going to explore some ways to make different kinds of shapes using the chenille stems.

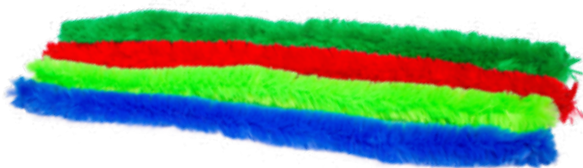
## LET'S MAKE



### WHAT YOU'LL NEED

#### INCLUDED

#### CHENILLE STEMS



#### NOT INCLUDED

#### PENCIL

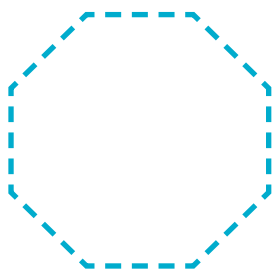


#### STEP 1

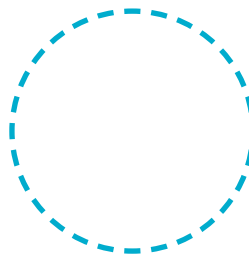
Let's start off with some riddles! Answer each in the following spaces.



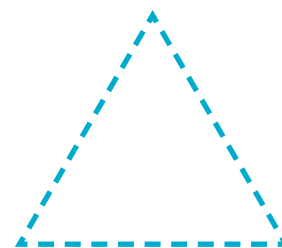
**RECTANGLE**



**OCTAGON**



**CIRCLE**



**TRIANGLE**

- 1 I have four sides and four corners. Two of my sides are longer than my other two sides. What am I?

ANSWER	DRAW A PICTURE OF IT

- 2 I have eight equal sides and you often see me when I ask you to STOP. What am I?

ANSWER	DRAW A PICTURE OF IT

- 3 I'm not a **polygon** because I have curved sides. I just keep going around and around and around. What am I?

ANSWER	DRAW A PICTURE OF IT

Polygons, or shapes, are closed figures (there are no gaps in the shape) with straight sides and angles (there are no curved lines).



## STEP 2

Your turn. Write a riddle where the answer would be a shape.  
Ask someone else to solve it!



Riddle: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

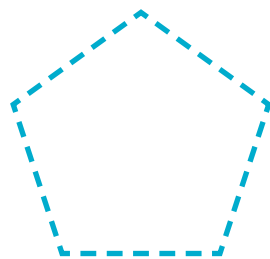
\_\_\_\_\_

\_\_\_\_\_

ANSWER	DRAW A PICTURE OF IT



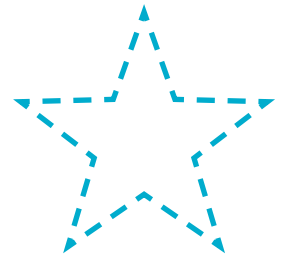
**SQUARE**



**PENTAGON**



**SEMICIRCLE**



**STAR**



Angles are made when two lines meet – like a corner.

### STEP 3

Now, let's see what polygons we can make using the chenille stems. Using one chenille stem, make a square. Notice how many **angles** and edges (lines) it has.

**ANGLES** \_\_\_\_\_

**EDGES** \_\_\_\_\_

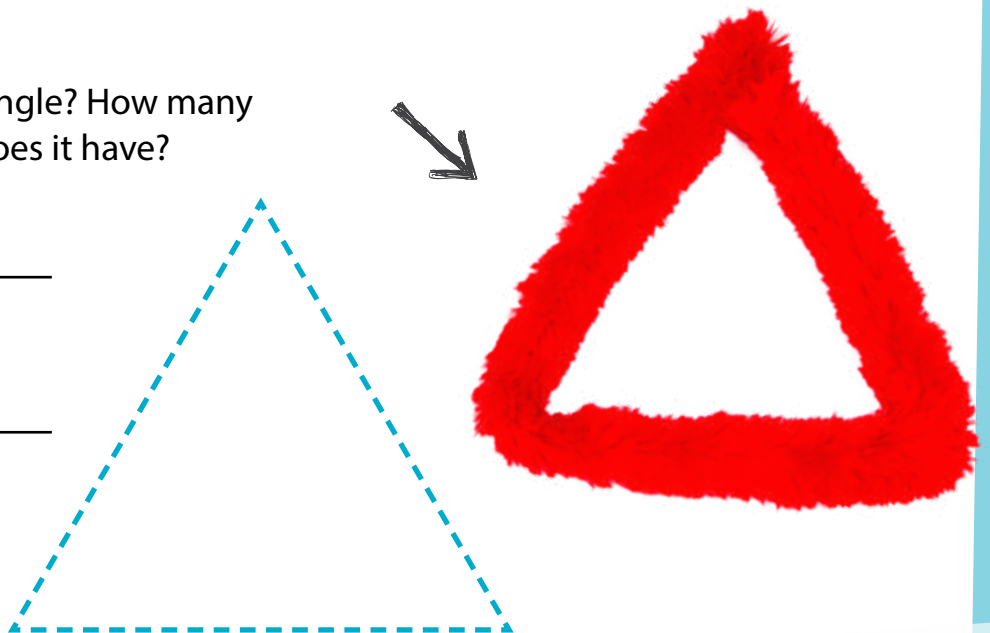


### STEP 4

Can you make a triangle? How many angles and edges does it have?

**ANGLES** \_\_\_\_\_

**EDGES** \_\_\_\_\_





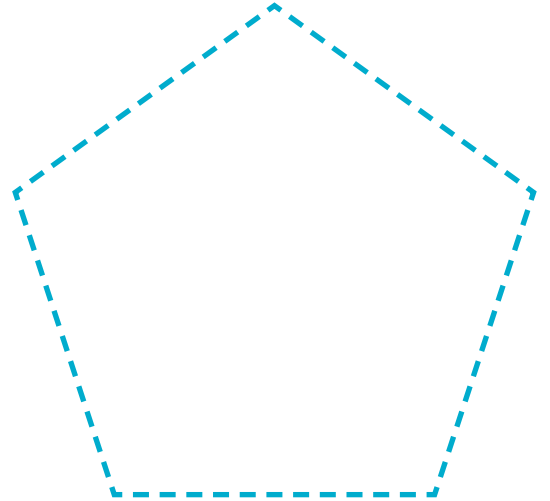


## STEP 5

Can you make a polygon with five equal sides? This is a pentagon. You might have heard about the US government building called The Pentagon. Can you guess why it's called that?

**ANGLES** \_\_\_\_\_

**EDGES** \_\_\_\_\_



# THINK ABOUT IT

How many different polygons can you make from one chenille stem? Can you increase that number if you use two or three chenille stems?

Explain to a friend why learning about polygons would help you build better structures.