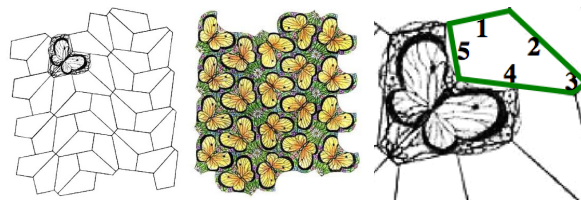


# Marjorie Rice and Pentagons



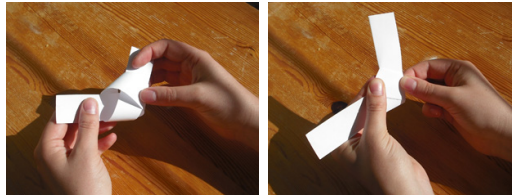
**Materials Needed:** scissors and paper

Marjorie Rice was a stay-at-home mom and amateur mathematician who discovered new tilings of five-sided figures, called **pentagons**: “I became fascinated by the subject and wanted to understand what made each type [of pentagon] unique. Lacking a mathematical background, I developed my own notation system and in a few months discovered a new type.” She also shared her mathematical discoveries in artistic drawings that she created:



## Make a pentagon

1. Cut a strip of paper
2. Tie a knot in it and pull the ends through until it is tight
3. Fold the whole thing flat
4. Cut off the extra paper
5. Count the five sides



## Ideas for using your amazing pentagon

- The pentagon you made is folded so that the interior angle is 108 degrees at each point, so if you need that angle, it is in your hand!
- Placing the pentagon in the middle of a pizza or cake will allow you to cut it into five equal pieces
- Push a pencil through the center of your pentagon and you have a spinner which will let you choose one of five things at random



okra is shaped like a pentagon

## Think about...

What most interests you about pentagons?