

# Interlocking Hearts: A Möbius Strip Valentine's Day Activity

Love and mathematics intertwine in this fascinating Valentine's Day activity that combines romance with topology. Learn how to create beautiful interlocking hearts using Möbius strips – a perfect blend of art, science, and affection for your classroom or personal celebration.

This engaging activity not only creates a beautiful Valentine's Day craft but also introduces students to complex mathematical concepts in an approachable, hands-on manner. It's a perfect way to celebrate love while fostering a love for learning!

If you are interested in trying this activity in your classroom, I have included a paper template for creating your Möbius loops. Please share your thoughts on this Valentine's day activity and how it went over in your classroom!

## What You'll Need:

- Colored paper strips (preferably in red, pink, or white)
- Scissors
- Tape or glue

## The Magic of Möbius Strips:

A Möbius strip is a surface with only one side and one edge, created by giving a strip of paper a half-twist before joining its ends. This mathematical wonder has captivated scientists and artists alike for centuries.

## Creating Interlocking Hearts:

1. Start with two strips of colored paper. When creating strips for my students, I took standard sized 8.5 X 11" paper and cut them into strips with dimensions of 8.5 X 1". Therefore each paper produced 11 colored strips.
2. With your first strip of paper you will make a Möbius loop by doing one half twist clockwise and connecting the ends.

3. You will repeat this process with your second strip. **Note:** It is vital that the second half twist be formed in the opposite direction of the first i.e. counterclockwise.



4. You should now have two Möbius loops that are mirror images of each other. Next, you will glue or tape the Möbius loops together at right angles.



5. Cut **each** Möbius loop in half lengthwise down the center. Be careful not to cut anything else.



6. Separate the resulting loops and arrange them to form two interlocking heart shapes.



