

Electrostatic Mixed-Up Tapes: Part 2



Name(s):

Part II: Tape Tango

You will need:

- A tape dispenser containing a roll of clear, sticky tape
- A smooth surface like a table or a craft table, cleaned and dried
- A marker

Directions:

1. Fold about $\frac{1}{2}$ " of one end of the tape over so that the sticky sides stick together. You should now have a "tab" on one end that won't stick to anything else.
2. Press the tape, sticky side down, onto the table so that it is nice and flat. Use the marker to label the tab as "1".
3. Pull off another 6 inch piece of tape and make a tab on it. Label it as "2".
4. Lay the second piece of tape down so that the tab is facing the opposite direction of the first piece. Make sure that the pieces are not touching.
5. Press the second piece down to make sure it is smooth and there are no bumps and wrinkles.
6. Hold one tab in each hand and quickly pull them both off the table.
7. Stick the pieces of tape on the edge of the table with about 10 inches of space between them. Make sure that the end without the tab is hanging down and the tapes are not touching anything else.

Make a Prediction!

What do you think will happen now if you bring your hand near the tapes?

Tape 1 Prediction	Tape 2 Prediction
<i>I think Tape 1 will...</i>	<i>I think Tape 2 will...</i>

Try it. What Happened?

Tape 1 Observation	Tape 2 Observation
<i>I noticed that Tape 1...</i>	<i>I noticed that Tape 2...</i>

1. Slowly bring the smooth side of Tape 1 towards the smooth side of Tape 2.
2. Then try the same thing using the sticky sides.

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What Happened?

Record your observations in the table.

Top Tape Side	Bottom Tape Side	What I Observed
Smooth	Smooth	
Sticky	Sticky	

How would you explain your observations?

I would explain my observations by...

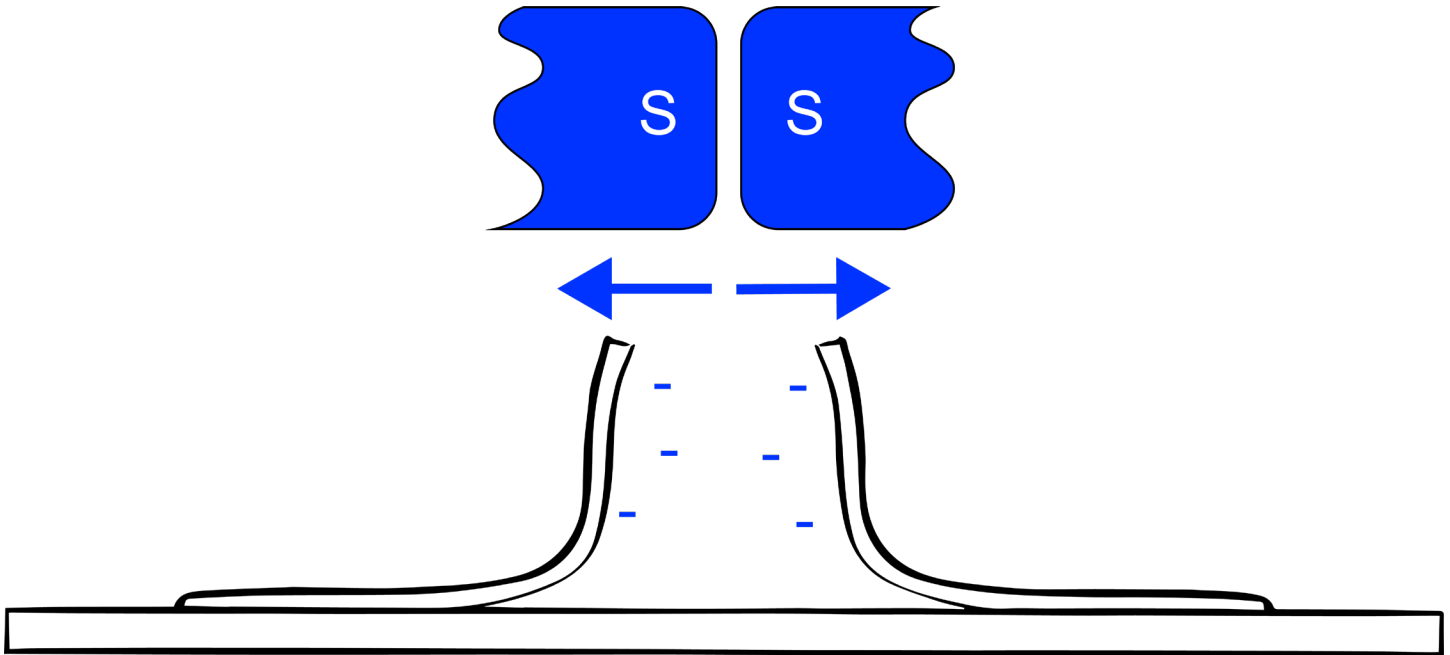
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What's Going On Here?

When you pulled the two pieces of tape off the table, you created two charged objects. Each one attracted your hand, which is an uncharged object. However, the pieces of tape did not attract each other. Instead, they repelled each other, just like magnets did in Lesson 10 when you tried to stick the South pole to the South pole or North pole to North pole.



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