VILLI SURFACE AREA EXPERIMENT

Name: _____

SUPERSTARWORKSHEETS

QUESTION:

How does surface area change how much water a paper towel can absorb?

HYPOTHESIS:

MATERIALS:

- paper towels
- ruler
- scissors
- 2 clear cups
- measuring cup marked in milliliters
- water
- timer

PROCEDURE:

1. Cut a 10 cm by 10 cm square of paper towel. This is the flat model of an intestine wall.
2. Cut a 10 cm by 40 cm strip of paper towel. Fold it back and forth like an accordion until it is also 10 cm by 10 cm. This is the folded model, like an intestine wall lined with villi.
3. Pour 100 mL of water into each cup.
4. Dip the flat square into the first cup for 10 seconds. Lift it out and let it drip over the cup for 10 seconds.
5. Dip the folded strip into the second cup the same way.
6. Measure the water left in each cup. Subtract from 100 mL to find how much water each model absorbed. Record your results.
7. Repeat for 3 trials with new paper towel pieces.

FINAL OBSERVATIONS:

	Flat Square (mL absorbed)	Folded Strip (mL absorbed)
Trial 1		
Trial 2		
Trial 3		
Average		

CONCLUSION:

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