

# Educational Innovations<sup>INC.</sup>

## SM-925

Goldenrod Paper (pack of 100 sheets)

*Our goldenrod paper is colored with a dye which is an acid-base indicator. It turns bright red in bases (e.g., solutions of ammonia, baking soda or washing soda) and golden-yellow in acids (e.g., vinegar or lemon juice).*

### Try these demonstrations:

- ✓ With a Q-Tip<sup>®</sup>, write a message on the paper with household ammonia. As the ammonia evaporates, the red message will disappear.
- ✓ To write a permanent message, use a base such as a baking soda or washing soda solution. The message remains.
- ✓ With a candle or wax crayon, write an invisible message on the paper, and then spray the paper with a basic solution to see the message.
- ✓ Use goldenrod paper to classify safe household products as acidic or basic.
- ✓ Use goldenrod indicator paper to test for acids and bases.



**Suggested Activity:** For over 150 years, litmus paper has been used to test the acidity of a solution. In this activity, your students will experiment with both litmus paper and goldenrod paper to create their own acid-base indicator chart.

### Instructions:

*Before class, prepare blue litmus paper by soaking the red paper in a weak basic solution such as baking soda ( $\text{NaHCO}_3$ ). Let the paper dry.*

	Basic Solution	Acidic Solution	Neutral Solution
Red Litmus Paper	turns blue	stays red	stays red
Blue Litmus Paper	stays blue	turns red	stays blue

*In class, provide students with vinegar, baking soda solution, a sheet of goldenrod paper, a few pieces of red and blue litmus paper and the data from the litmus paper chart above. Encourage them to see what happens to the paper when they apply a basic or acidic solution.*

*Challenge students to prepare a similar acid-base indicator chart for goldenrod paper.*

*When they finish, compare their answers to the chart at right.*

	Basic Solution	Acidic Solution	Neutral Solution
Yellow Goldenrod Paper	turns red	stays yellow	stays yellow
Red Goldenrod Paper	stays red	turns yellow	stays red