

## Lesson Plan: Science or Magic?

**Name of Program:** Super Sprouts!

**Intended Ages:** 4 years & younger

**Exhibit Area:** Celebration Room

**Date(s):** Aug 20 & 23, 2007

**Materials:**

Goldenrod paper (Astrobrights, Galaxy Gold, Smooth Finish, 24/60lb. #22571)  
Small Paintbrushes or Q-Tips

Baking soda & water in no-spill cups  
Lemon Juice or Carbonated Water  
Drying Racks

**Learning Topics Met:**

Fine motor	Gross motor	Math	Science	Art	Language	Culture	Practical Life	Dramatic Play
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**Specific Objectives:** Children will practice fine-motor coordination, experimenting with painting on the special paper with the different solutions. Children will be exposed to the scientific terms: acid, base, solution, and indicator.

**Safety Tips:** Watch out for small pieces on the floor. Children should not drink the solutions, but they are not harmful.

**Ahead of Time:** Create a description of the skills being learned and a sign to advertise the demo, along with an example. The teacher will put baking soda in water and Lemon Juice or Carbonated Water in no-spill paint cups on the tables, in addition to placing goldenrod color-change paper on the front table.

**Process:**

1. Welcome visitors to the activity and invite them to pick up one piece of goldenrod paper from the front table and have a seat at a table.
2. Explain that visitors may try the different solutions to paint on their paper.
3. When ready, children will use the baking soda and lemon juice to paint on their paper.
4. Circulate and discuss with students why they think the paper changes color. Their guess is called a hypothesis! Mention that red shows a base and can be changed back to yellow with an acid.

**Closure:** Let all visitors know we are glad they came and offer plastic bags. Remind them to come back to pick up artwork left to dry.

**Sources:** <http://www.darylscience.com/Demos/Goldenrod.html>

<http://www.teachersource.com/>

<http://www.stevespanglerscience.com/>

