



# High Touch High Tech®

Science Experiences That Come To You™

## Smelling Bee©

### Supplies

- 4 x 9 oz plastic cups filled with
  - Orange juice
  - Crushed garlic thinned with water
  - Vinegar
  - Vanilla mixed with water
- 4 x Food Coloring

### Instructions

1. With help from an adult, set up the 4 different liquids.
  - a. Disguise the true color of each liquid by using food coloring.
  - b. The only way to identify the liquid is to use your nose!
2. Take turns smelling each liquid.
3. Make guesses as to what you think each liquid might be.
4. Reveal the identity of each liquid. Were you right?

### Science Behind It

Our sense of smell is part of our **olfactory system**. What part of our bodies do we use for smell? That's right, our **nose!**

What do you think smells are? They are odor-causing molecules in the air. We breathe air and these molecules in and the receptors in our nose sense the molecules and send messages to the brain. The brain then interprets the stimuli and tells you what you are smelling. You can tell the difference between thousands, and thousands of smells. Your nose can tell the difference between a cake in the oven and soap or the difference between popcorn being popped and gas being pumped into your mom or dad's car!

In our Smelling Bee, you smelled several different items and guessed what they were using just your sense of smell. How does a scientist safely smell something? Scientists waft by passing their hand over the top of the cup and pushing the smell under their nose. Give it a try!

Did changing the colors of the liquids make it harder to figure out what the smell was? Remember that our senses all work together to help us figure out what things are.

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