

Subtractive Color Mixing: Mixing Inks



To Do and Notice:

- 1.) Place two drops of yellow ink and two drops of magenta ink in a clean well on a spot plate (see image below).



Do not let the tip of the eye dropper touch the ink in the well.

- 2.) After slowly mix the two inks together with a clean Q-Tip, use the Q-Tip to draw a line or other figure on a piece of white paper. What color appears on the paper? Record your answer on the data sheet.
- 3.) Repeat the procedure with combinations of yellow and cyan inks, cyan and magenta inks, and finally, mix all three inks together. Again record your results on the data sheet.
- 4.) Please discard your Q-Tips in a waste paper container and clean and dry your spot well in the sink.
- 5.) What conclusions can you make regarding the various combinations of the subtractive primaries cyan, magenta and yellow?

What's Going On?

Subtractive color mixing occurs when light passes through two or more selectively absorbing materials, such as these inks. The commonly used subtractive primary colors are **cyan**, **magenta** and **yellow**. These inks absorb red, green and blue light respectively. Yellow ink absorbs blue light and magenta ink absorbs green light. Therefore the only light passing through a mixture of yellow and magenta inks is red.