FLINN SCIENTIFIC

Name_____

Experiment I. Separation of Pigments in Inks

Post-Lab Questions *(Answer on a separate sheet of paper.)*

1. Draw representations of each of the strips including the pigment colors and locations, as well as the starting spot and final solvent front locations.

2. Which inks appear to be made up of more than one pigment? Which inks appear to be a single pigment?

3. Do any of the inks appear to use common pigments? Which inks and which pigments do they have in common?

4. Knowing that water is a very polar solvent, what can you infer about the relative polarities of the various pigments in each ink?

5. If you have an ultraviolet (UV or "black") light, shine it on each of the strips in a darkened room. What do you see? Can you make any additional inferences about the pigments in the various inks?

Experiment II. Separation of Plant Pigments

II. Structure and Function of Photosynthetic Pigments

Post-Lab Questions

1. Draw a representation of the chromatography strip including the pigment colors and locations, as well as the starting line and final solvent front location.

2. How many different plant pigments (bands) can you see? Knowing that the solvent is mainly non-polar, can you determine which bands contain the xanthophylls, chlorophyll a, and chlorophyll b?

3. Are there any additional bands? Based on the pigments found in Table 1 (page 4), what pigments might be contained in those bands?

4. If you have an ultraviolet (UV or "black") light, shine it on the strip. Some plant pigments (including chlorophylls) will fluoresce under UV light. Describe your observations.