

A Classroom Demonstration for *The Life of a Leaf*

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No-slip Condition (Page 60):

The no-slip condition can be demonstrated reasonably well in a large, cylindrical, transparent container of water. One allows the water to rest for a few minutes and then gently introduces (through a capillary tube, catheter tube, or pipette) a bit of colorant (rhodamine, Evans blue, food color, etc.) up against the side wall. Very gentle stirring will cause the colorant to form a streak, with the glass at the original location still marked for quite a while. The whole thing is more persuasive if a very viscous liquid such as corn syrup is used, with the dye (from powder) made up in corn syrup or replaced with dark molasses.