

Chromatography in Forensics

Name:

Date:

INQUIRY

A forged cheque was written with a different pen. Chromatography can prove it. How?

Discuss with your partner. Write your initial ideas below:

Key Vocabulary

Term	Definition
Chromatography	Separating substances based on how they travel through paper.
Rf value	Distance of substance / distance of solvent.

Part A — Method

1. Describe step-by-step how to perform paper chromatography to compare two ink samples. [4 marks]

Part B — Analysis

2. Ink A: spots at 2.4 cm and 4.8 cm. Ink B: spots at 2.4 cm and 5.6 cm. Solvent front: 8.0 cm. Calculate all Rf values. Are the inks the same? [4 marks]

Show your working:

3. A food safety inspector in Nanjing tests a candy for banned dyes. The chromatogram shows 3 spots. Two match approved dyes. One is unknown. What should happen next? [3 marks]