

# **Forensic Science Document Analysis Part 1**

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# Document Analysis



- ✦ The examination and comparison of questioned documents with known material
  - ✦ **Questioned Documents-** any signature, handwriting, typewriting, or other written mark whose source or authenticity is in dispute or uncertain
- ✦ Experts establish the authenticity of documents and detect any changes, erasures, or obliterations that may have occurred
  - ✦ **Obliteration-** writing over top to smear or make original writing unreadable

# Common Questioned Documents

- ✦ Checks
- ✦ Certificates
- ✦ Wills
- ✦ Passports
- ✦ Licenses
- ✦ Money
- ✦ Letters
- ✦ Contracts
- ✦ Suicide Notes
- ✦ Receipts
- ✦ Even Lottery Tickets

# Handwriting Analysis



- ✦ Like **Fingerprints**, every person's handwriting is unique and personalized
- ✦ **Handwriting** is difficult to disguise or forge
  - ✦ Good tool for including or excluding persons when determining a match with an *exemplar*
- ✦ **Questioned documents** are compared to exemplars to determine matches
  - ✦ **Exemplars**- prewritten handwriting samples from a suspect(s)

# History of Handwriting Analysis

- ✦ **1930s**—handwriting analysis played a role in the famous Lindbergh case.
- ✦ **1999**—the US Court of Appeals determined that handwriting analysis qualifies as a form of expert testimony
- ✦ **To be admissible in court**, scientifically accepted guidelines must be followed
- ✦ **Scotland Yard, the FBI, and the Secret Service** use handwriting analysis

# Introduction to Handwriting



- ✦ Everyone's **handwriting** exhibits natural variation
  - ✦ **Writing instruments-** pen, pencil, marker ect...
  - ✦ **Other-** Mood, age, hurried
- ✦ **Brain does writing-** methods of writing become subconscious
  - ✦ **Adults** show little variation

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## **12 Characteristics of Handwriting Line Quality**

Do the letters flow or are they erratic and shaky?

The right of  
the people to be

The right of  
the people to be  
secure in their

The right of  
the people to be  
secure in their

## 12 Characteristics of Handwriting Spacing

Are letters equally spaced or crowded?

Are margins evenly spaced?



The Right of the People  
The Right of the People  
The Right of the People

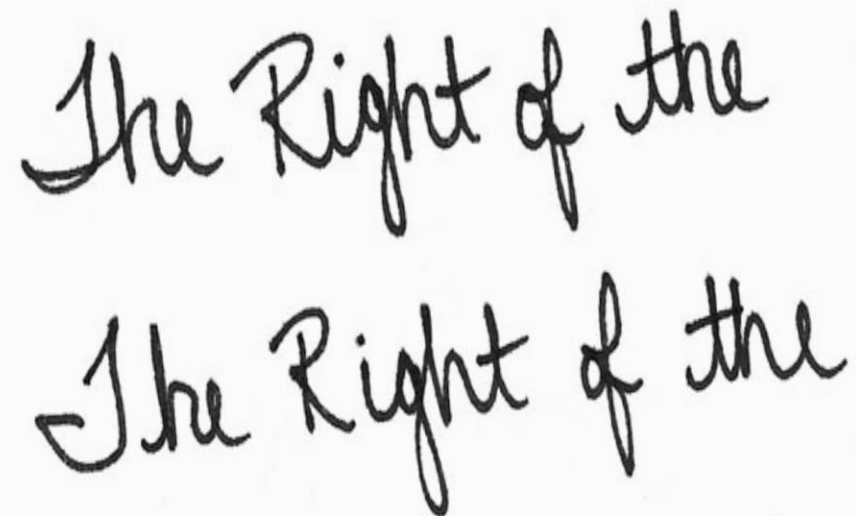
## **12 Characteristics of Handwriting** **Size Consistency**

Is the ratio of height to width consistent?

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## **12 Characteristics of Handwriting Continuous**

Is the writing continuous or does the writer lift the pen/pencil?



The Right of the  
The Right of the

## **12 Characteristics of Handwriting Connecting Letters**

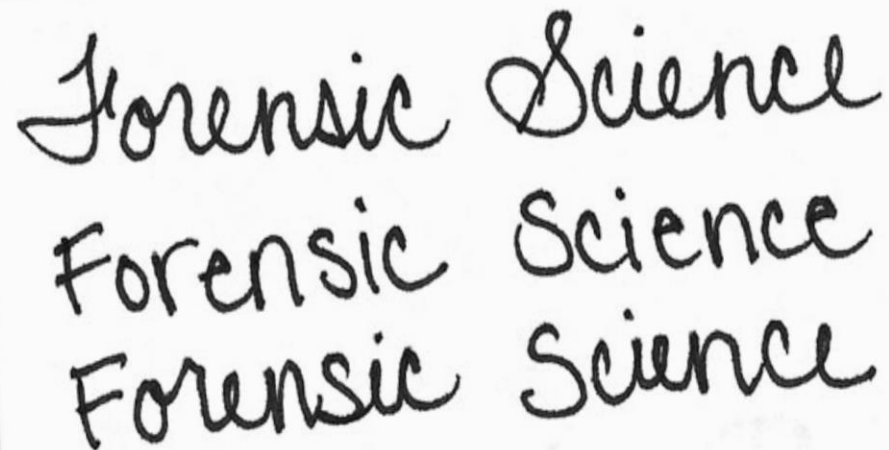
Are the capital and lowercase letters connected and continuous?

the right of the people

th right of the people

## **12 Characteristics of Handwriting Letters Complete**

Are letters completely formed?  
Or, is part of a letter missing?



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## **12 Characteristics of Handwriting Cursive and Printed Letters**

Are there printed letters, cursive letters, or both?

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## **12 Characteristics of Handwriting Pen Pressure**

Is pressure equal when applied to upward and downward strokes?

**Thank You For Your  
Attention!**



Questions and Comments