

DETECTIVE LAB

SECTION 6: HANDWRITING ANALYSIS

From *Science in a Nutshell*



Westminster College

OBJECTIVE:

To analyze and identify handwriting styles

MATERIALS:

hand lens
Journal Page for Activity 6
pocket microscopes

BACKGROUND:

Handwriting is as unique as fingerprints. No one writes exactly the way you do. Except for changes caused by injury or illness, your writing style remains unique throughout your life.

Evidence at the scene of a crime may include handwritten notes, letters, and other documents. To identify who wrote something, police collect samples of handwriting from the suspects.

A handwriting expert carefully examines the handwriting styles. The handwriting on the evidence is then compared with the writing samples to determine who wrote the note or letter collected as evidence.

Some of the handwriting styles that experts look for are the way words begin and end and the way the loops are formed in letters such as *l*, *t*, *d* and *g*. The slant of the letters, the height of the letters, and how letters are connected are unique to each person.

Other characteristics that can be different are the distance between words, the way *i*'s are dotted and *t*'s are crossed, and how hard the writer presses down with the pen (look for thicker or thinner lines).

Two examples of the word 'hello' written in cursive. The top example is written in a simple, clean cursive style with clear letter connections. The bottom example is written in a more complex, stylized cursive style with many loops and flourishes.

In this activity, you will analyze the handwriting of several people and use what you have learned about handwriting analysis to identify who wrote a mystery sentence.

EXPERIMENT:

1. Ask your partner to sign his or her name and to write the sentence, “The quick brown fox jumped over the lazy dogs.” in cursive on the Journal page for Activity 6. (Do not print)
2. Ask four other people to sign their names and to write the sentence in your journal. Tell them not to print.
3. Give the journal to your partner. Have your partner ask one of the other sentence writers to write (in script) a mystery sentence in your journal. Ask your partner not to tell you who the mystery person is.
4. Look at the handwriting on the mystery sentence. Notice the way each letter is formed, the spacing of the letters and words, and how the *i*'s are dotted and the *t*'s are crossed. Then use the hand lens to examine details.
5. To use the pocket microscope to examine the handwriting, remove the bottom tube. Place the end with the clear plastic rim on the handwriting sample. Look through the end that has the metal clip.
6. Compare the mystery handwriting with the sample sentences in your journal. Which sample is most like the mystery writing?
7. Who do you think wrote the mystery sentence? What details are the same in the mystery sentence and in the sample sentence in your journal? Record your observations in the journal.
8. Sign your name and write the sample sentence in script in your journal. Remember, do not print.
9. Carefully examine your own handwriting and then list at least five ways that your handwriting is different from everyone else's. Record your observations in the journal.
10. Are any of the five people who gave your handwriting samples left-handed? What characteristics help you to identify the handwriting of a person who is left-handed?

IN A NUTSHELL:

Writing style is influenced by the style of writing that is taught in school and by the unique individual characteristics a person has acquired.

CRACKING THE NUT:

Use a hand lens or microscope to compare the print from several different typewriters or computer printers. If possible, print the same sentence on each machine. Can you determine which machine printed which sample?