

The Writing on the Wall

PROBLEM:

You are applying for your first job as a document examiner. Your prospective boss wants to test your powers of observation with a short quiz. He has gathered handwriting samples from various office employees and wants you to correctly match each pair of handwriting samples.

ONLINE ACTIVITY:

This activity is available in an on-line format at <http://forensics.rice.edu/html/handwriting.html>. There is no preparation required for the online activity. Each student or group of students can complete the activity on their own computer and print a copy from the website after completion.

CLASSROOM ACTIVITY:

You will need to collect two writing samples from students so they can attempt to match them. The samples should be labeled so you can tell which pair of samples match. Decide which of the two following methods will work best for you.

Method 1: This method has larger groups, but can be completed in one class period. It is not as challenging as Method 2.

1. Give each student two note cards. The kind with lines is preferable but not required. For ease of sorting the cards, you could use one white note card and one colored note card. Or, just put a colored line or dot on one of the white cards you give to each student.
2. Have the student write the word "dictionary", in their normal handwriting, on each card. Remind students to write the word carefully on the lines.
3. As they are writing the words, move around the room and assign numbers/letters so you can tell later which cards match. Have the students write the **number on one card** and the matching **letter** on the back of the **other card**. You should copy or print off this key and make assignments from the following list, using each combination only once: A-30; B-29; C-28; D-27; E-26; F-25; G-24; H-23; I-22; J-21; K-20; L-19; M-18; N-17; O-16; P-15; Q-14; R-13; S-12; T-11; U-10; V-9; W-8; X-7; Y-6; Z-5; AA-4; BB-3; CC-2; DD-1.
4. Divide students into groups of six to eight. Have one group member bring paper and pencil to record for the team.
5. In their groups, students should collect all of the cards and then exchange them with another group.
6. Instruct students to lay the colored cards in one column and the white ones in another column. Don't have them match the samples yet. Give the groups two minutes to discuss and record the types of characteristics they think they could use to match up the handwriting samples. The recorder creates a list.
7. Stop the class and have each group share one idea from their list. If they do not include all of the items mentioned in the **Teacher Notes** section, you may fill in with ones they forgot.
8. Instruct them to match the handwriting samples. The recorder may write the matching letters and numbers which the group decides upon and bring them to the teacher to check against the key. Circle ones that are incorrect and let the group try to fix their mistakes. Once all of them are correct, they may exchange cards with another group.

Method 2: For more of a challenge and to create an activity where students can work in smaller groups of one to three, change the activity in the following way:

1. On the day before the activity, pass around a piece of lined paper with two columns drawn on it. Have students write the word "dictionary" in each column right across from each other. You could number the rows to make sure they remember to skip lines and then cut the numbers off later.
2. To make samples for each class period, first, create a key by assigning alphabet letters to one column and random numbers to the second column. Don't do a pattern that is predictable, and don't use the same number twice. Write the numbers and letters next to the sample on the front of the paper next to the word. Label which class period the sample is from and PHOTOCOPY OR RECORD THE LETTER/NUMBER MATCHES TO MAKE YOUR KEY.
3. Cut apart the second column, rearrange the order, and tape the second column back in place. Note that using about 10-15 of the samples will make a workable number for students to match. Photocopy the number needed for your group sizes. You could create a second set with the remaining handwriting samples to be used by students who successfully complete the first matches.
4. The next day, divide into groups of one to three and distribute the sample page. Give the groups two minutes to discuss and record the types of characteristics they think they could use to match up the handwriting samples.
5. Stop the class and have each group share one idea from their list. If they do not include all of the items mentioned in the Teacher Notes, you may fill in with ones they forgot.
6. Instruct your students to match the handwriting samples. The group may record the matching letters and numbers and bring them to the teacher to check against the key. Circle ones that are incorrect and let the group try to fix their mistakes. Once they have all of them correct, they could try the second set of samples (see #3 above.)

TEACHER NOTES

Handwriting analysis is one of the earliest and most prominent forms of questioned document examination. Successful comparison depends on identifying several traits students may instinctively grasp—the **slant** of the letters, the **symmetry** of certain "loop" letters (e.g. *e, f, g*, etc.), the **"i" dot** or **"t" crossing**. Additional traits you may want to point out include **height ratios** (the height of the letter "t" compared to the "h", or "c" to the "i," for example), **alignment to baseline** (does the writing slant upwards, downwards, or curve?), and **movement** (the connection between the letters).

Questioned document examination extends beyond handwriting analysis. Examiners may be called on to prove the validity of typed or photocopied documents, postage stamps, currency, money orders, receipts, tickets, or any number of unusual "documents."

MATERIALS:

- Method 1: • Two note cards per student, one of them color-coded
- Method 2: • Wide lined notebook paper (two pieces per class period)
• Tape and scissors

