# Who Has It Now?

#### Topic

Chain of custody

#### Introduction

When the investigation of a criminal case has been completed and the case brought to court, evidence collected during the investigation will be used in the trial. The court must be able to trust the evidence, i.e., to know that it hasn't been tampered with since its collection at the crime scene. A document that accompanies each piece of evidence (securely packaged to prevent contamination) through all the tests made by various forensic specialists gives this assurance. The document states the date and time of any transfer between people, the name of the person handling it, the process undergone, and the conditions in which it is stored. This document details what is called the chain of custody. The chain of custody document must be an unbroken record, beginning with the discovery of the evidence at a crime scene and ending with its appearance in court. If evidence is not accompanied by a chain of custody document or if the document shows breaks in the chain, lawyers could argue that the evidence has been tampered with, and that the evidence is invalid and inadmissible in court. In this experiment, you will collect and secure evidence at a "pretend" crime scene. Over the course of a few days, you will make tests on the evidence and pass it on to your fellow students, keeping track of all processes in a chain of custody document.

### Time required

Week one: 30 minutes Week two: 5 minutes

#### Materials

For Part A:

- a small container of baking powder with detachable plastic lid
- 2 pieces of plain white paper  $(8^{1/2} \times 11 \text{ inches})$
- 4 zippered plastic bags: one large enough for the container of baking powder, one for the lid, and two for samples of the baking powder (extra bags should be supplied to allow for the bags being tampered with) stapler

pen

3 clean scoops or spatulas clean forceps translucent tape

#### For Part B

The items of evidence and chain of custody documents from Week one

# Safety note

Please read the general safety precautions at the beginning of the book.

#### Procedure

Students need to be in groups of four for this experiment.

#### To create the crime scene:

- 1. Place the container on one of the pieces of paper on a table.
- 2. Remove the lid and place it on the floor beside the table.
- 3. Using the spatula, spoon about two tablespoons of baking powder from the container into a heap on the other piece of paper on the table.

#### Part A: Collecting evidence at the scene of crime

- 1. Using a clean scoop, one student puts some of the powder from the pile on the table into a clean zippered plastic bag.
- 2. Seal the bag, tape over the top of the bag, and initial the tape.
- 3. Complete the chain of custody form (data table A below) and staple the form to the bag.

DATA TABLE A							
Date of co	ollection:						
Name of j	person taking t	he sample:	1. (and a second se				
Descriptio	on of evidence:	White powder	r				
Descriptio	on of place from	n which evide	nce taken: Pile or	1 table			
Date of transfer	Name of custodian	Signature	Name of new custodian	Signature	Description of contents and condition of seal	Description of storage conditions	
		-					

- 4. Invite a second student to use a clean scoop to place some of the powder from the container in a clean zippered plastic bag.
- 5. Seal the bag, tape over the top of the bag, and initial the tape.
- 6. Complete the chain of custody form (data table B below) and staple the form to the bag.

## DATA TABLE B

Date of collection:

Name of person taking the sample:

Description of evidence: White powder

Description of place from which evidence taken: Open container

Date of transfer	Name of custodian	Signature	Name of new custodian	Signature	Description of contents and condition of seal	Description of storage conditions
						-
						1

- 7. Ask a third student to use the forceps to place the container of powder upright in a large clean zippered plastic bag.
- 8. Seal the bag, tape over the top of the bag, and initial the tape.
- 9. Complete the chain of custody form (data table C on the next page) and staple the form to the bag.
- 10. Ask the fourth student to use the forceps to place the lid in a clean zippered plastic bag.
- 11. Seal the bag, tape over the top of the bag, and initial the tape.
- 12. Complete the chain of custody form (data table D on the next page) and staple the form to the bag.

DATA TABLE C							
Date of co	ollection:						
Name of	person taking t	he sample:	3		ж	1	
Descriptio	on of evidence:	Container of	white powder				
Descriptio	on of place from	n which evide	nce taken: Table				
Date of transfer	Name of custodian	Signature	Name of new custodian	Signature	Description of contents and condition of seal	Description of storage conditions	
						85	

DATA TABLE D						
Date of co	ollection:					
Name of J	person taking th	ne sample:				
Descriptio	on of evidence:	Circular piece	of plastic, proba	bly a lid from	a container	
Descriptio	on of place from	which evider	nce taken: Floor			
Date of transfer	Name of custodian	Signature	Name of new custodian	Signature	Description of contents and condition of seal	Description of storage conditions

13. At the end of the lesson, the students take the "clues" home. All students should be given the instructions in the box on the next page.

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#### INSTRUCTIONS TO STUDENTS

If you are not carrying the bag containing the "clue" on your person, keep it safely in a lockable cabinet. If it is left with someone else, make an entry in the form identifying the transfer of custody.

If you have signed for the "clue," you are responsible for its security.

If the seal is broken, the person responsible should place the "clue" in its original bag in a spare bag (spare bags are provided) confirming this on the form.

During the week, you can perform some simple tests on your "clue" such as testing the container and lid for fingerprints (see Experiment 3.02: No Two The Same) or testing the white powder (see Experiment 4.03: Which Is Which 1? and Experiment 4.04: Which Is Which 2?) If you do this, fill in a report (data table E) detailing your test and its results, and attach the form to the evidence bag (resealed in a new bag).

DATA TABLE E					
Description of evidence (from chain of custody document)	Date	Name of person performing test	Description of test	Result of test	

#### Part B: Examining the evidence

The students should return to the class with the "clues" one week later.

- 1. Inspect the chain of custody document.
- 2. Inspect the "clues" and check to see if the seals on the bags are broken.
- 3. If the seal is broken, check the chain of custody document to see who is responsible and identify the cause (e.g., a test may have been performed).

## Analysis

- 1. Does the document show a complete chain of custody?
- 2. Were the seals on the bag intact and, if not, was the bag resealed with an explanation within another bag?
- 3. Would you trust this evidence?

#### Want to know more?

See Section 10: Our Findings