



OHIO CSI FORENSIC DIVISION

UNIT 1 · MEDICAL INVESTIGATION · CASE RESPAWN

Period 6A-7B · Respawn, an e-sports lounge with a smoothie counter

FORM NO. CSI-1-D16-S
CASE NO. JH-26-0831-B
REV. 2026-27
PAGE ____ OF ____

FOR EDUCATIONAL USE

OHIO CSI FORENSIC DIVISION

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DAILY EVIDENCE SHEET

Oct 1 · Investigation Day 16 of 18 · The Tree Resolves

OFFICIAL

WEBXAM · DOMAIN 2 BIOTECHNOLOGY RESEARCH AND EXPERIMENTS · OHIO OUTCOME 5.8

VOCABULARY IN BOLD IS DEFINED WHERE IT FIRST APPEARS

INVESTIGATOR CODE (PERIOD + CODE, NOT YOUR NAME)	TEAM	DATE
		Oct 1, 2026

WHY TODAY MATTERS, IN PLAIN ENGLISH

SEC 00

Real cases close when independent lines of evidence agree: one line can persuade, but three independent lines that all point the same way are what let you conclude. Today you bring every thread to one table the same way and let the logic tree resolve.

Today you will: bring every thread to one table, close the last open questions with the records exhibits you already hold, resolve the logic tree, and draft your manner-and-cause claim.

The ten-year idea: Corroboration closes cases: independent evidence lines agreeing. One line persuades; three lines conclude.

CORROBORATE: when independent evidence lines agree. Analogy to hold onto: two witnesses who never met telling the same story.

EXONERATE: to clear a suspect with evidence. Analogy to hold onto: the alibi that checks out.

PART A · READ THE BRIEFING, THEN ANSWER FROM THE TEXT

SEC 01

Synthesis has a method, and it is the day-12 method scaled up: lay every evidence line side by side, ask what each supports INDEPENDENTLY, and watch where independent lines converge. Scene, trace, serology and DNA, chemistry, medical findings, records: six threads. A conclusion that needs only one thread to be wrong is weak; a conclusion where three independent threads must ALL be wrong is strong. That is corroboration, and it is the difference between a theory and a finding.

Today the final records exhibits release and close the open threads. Records are evidence with a special power: they are time-stamped by machines and third parties, which makes them the skeleton the soft estimates hang on. Your time-of-death window bends; a door log does not.

Exoneration discipline, one last time: every suspect leaves this case in one of three states: cleared by evidence, implicated by evidence, or not established by evidence. 'We could not prove it was them' and 'the evidence shows it was not them' are different sentences, and your matrix must say which one you mean, suspect by suspect.

Then the tree: walk each manner branch and ask what the assembled evidence does to it. Prune with reasons, out loud, in writing. Whatever branch survives, with at least three independent threads holding it up (four exhibits across three threads), is your draft claim.

Answer from the reading above. Cite the sentence you used by copying its first three words in quotation marks.

PBS-U1-
D16-A1

The reading says records are the skeleton the soft estimates hang on. What gives records that power? Copy the first three words of the sentence you used.

PBS-U1-
D16-A2

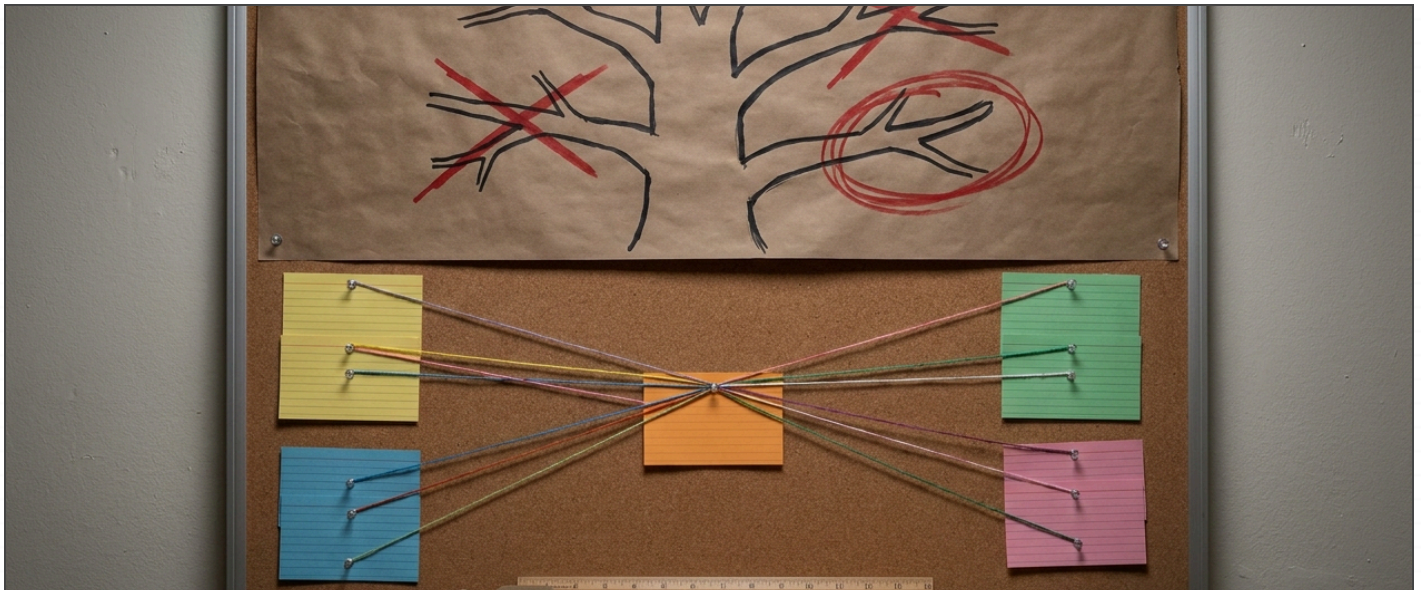
What are the three states a person of interest can leave this case in, according to the reading, and why are cleared and not established not the same sentence?

WORKED EXAMPLE, STEP BY STEP (A PRACTICE CASE, NOT OURS)

SEC 01A

Closing a logic tree on a practice case: the Larkspur greenhouse (made up)

A groundskeeper, 58, was found dead at 6:00 PM on the floor of a closed glass greenhouse on a 34 C July afternoon, and seven practice exhibits (P1 to P7) must resolve the tree: natural, accident, self-harm, homicide, undetermined.



What to notice: Notice the drawn tree with branches struck through in red and one branch circled: a tree closes only when every other branch has a named reason to fall, and the cards below it are the evidence that did the pruning.

1. Lay the threads side by side with their exhibits. Scene: P1 (door latched from the inside, no forced entry, no signs of struggle, body face down between the benches) and P6 (the vent fan motor burned out, the vent shutters jammed shut). Chemistry: P2 (drug and poison screens negative; blood sodium very high and blood concentrated, the pattern of severe dehydration). Medical: P3 (no injuries; old scar tissue in the heart muscle from a heart attack years earlier; no fresh heart damage). Records: P4 (thermostat log: 46 C inside from 1:00 PM to 4:30 PM), P5 (last text at 12:50 PM to a coworker: 'fixing the vent fan, out by 3'), P7 (site badge log: the coworker who argued with him that morning badged out at 11:30 AM and never returned). Result: four threads present; no trace or serology thread in this case.
2. Walk the homicide branch. What supports it: nothing. What cuts against it: P1 (latched from inside, no struggle), P3 (no injuries), P7 (the only person with a grudge left at 11:30). Result: zero threads for, three independent threads against; pruned, with those three P-numbers written as the reason.
3. Walk the self-harm branch. No exhibit shows intent, and P5 shows a plan to be out by 3. Result: zero threads; pruned. Note the honest wording: 'no exhibit supports it,' not 'proven impossible.'
4. Walk poisoning as a sub-branch under both accident and homicide. P2 is negative for drugs and poisons. Result: pruned by one chemistry exhibit, and that is enough because the branch has nothing FOR it.
5. Walk the natural branch. P3 shows old heart scarring but no fresh damage. Result: one thread only; under the pack's rule that a branch survives only with two independent threads, it cannot stand alone as the manner. It stays on the tree as a contributing condition.
6. Walk the accident branch (heat). P4 records the room at 46 C for hours; P2 shows severe dehydration; P6 shows why the room sealed and heated; P5 puts him inside working during that window. Count independent threads: records (P4, P5), chemistry (P2), scene (P6) = three. Count exhibits: four. Result: the four-across-three rule is met and this is the surviving branch.
7. Close every person of interest with the sentence type earned. The coworker: 'the evidence shows it was not them' (P7 badge out at 11:30, P1 latched from inside). Result: exonerated by evidence, not merely unproven. Then write the draft claim inside the ceiling.

Finished product: Draft claim: the evidence supports death by heat exposure inside a sealed greenhouse whose vent fan failed (manner: accident), with old heart disease as a contributing condition, cited P4 and P5 (records), P2 (chemistry), P6 (scene); the coworker is exonerated by P7 and P1; strongest limitation: nobody saw the collapse and the inside temperature rests on a single log.

Now do the same steps on today's real data in Part B. If you were in class, use your team's data. If you were absent or are new, use the canned data set below.

IF YOU WERE NOT IN CLASS: THE DATA YOU NEED

SEC 01B

ABSENT OR NEW TO THE CLASS? START HERE

Warm-up first (the failure-patterns one-pager and your advance claim ceiling), then the records released: E14, E9, E15. Team F logged them, each team summarized its thread, and the class pruned the logic tree branch by branch with cited reasons. Below is the evidence log as it read at the end of the period. The draft claim itself is your Part C to write.

E1 (Scene)	Body behind the smoothie counter; supply shelf toppled across the legs; rubber floor mat pulled over the lower body; counter drawer open and empty, within the outline's hand reach (Day 5 measurement). Layout: the storeroom opens by an interior door onto both the counter prep area and the back office without crossing the public floor.
E6 (Scene)	Epinephrine auto-injector found during office inventory on the back office shelf, in date, unused; every staff statement and the Day 4 background card say it lived in the counter drawer.
E7 (Trace)	One hair on the storeroom floor with a fresh root tag (recent shed or pull), consistent with Whitfield's elimination card; a fired employee has no work reason to be in that room.
E8 (Trace)	Blender: Nguyen's and the victim's daily-use prints. Protein-container lid: the victim's and Nguyen's daily-use prints UNDER broad glove-type smudges laid over them (the smudges came later).
E2 and E2b (Serology and DNA)	Counter-edge and floor stains: Kastle-Meyer presumptive positive; ABO type O, the victim's record type, and all four persons of interest carry other types; STR lane L1 matches the victim's reference (L4).
E3 (Serology and DNA)	Smoothie cup with straw: straw DNA (lane L2) matches the victim.
E-STR (Serology and DNA)	Storeroom hair (lane L3) matches Whitfield's reference (L6) at every band; Rao and Boone reference cards available on request; no other profile appears in any lane.
E4 and E5 (Chemistry)	Peanut-protein lateral-flow (a quick test strip): the OPEN counter container, E4, strongly positive; the SEALED stock container of the same lot, E5, negative. The sealed container is the control.
E10 (Chemistry)	Panel: drug screen negative in every class; ethanol negative; tryptase 38 ng/mL (ref below 11; tryptase is released by mast cells, the allergy-alarm cells); peanut-specific IgE class 5 of 6 (strongly primed). Examiner's note: postmortem tryptase supports anaphylaxis but does not alone prove it.
E11 (Medical)	Autopsy: right brow laceration 2.4 cm, edge-patterned, consistent with the counter edge, with vital response; no defensive wounds; hyoid bone and larynx cartilages intact, no ligature furrow, no neck bruising; severe swelling of the larynx and airway lining; mucus plugging; lungs hyperinflated.
E12 (Medical)	Histology: larynx under-layer widened with fluid and allergy-associated cells; a small airway plugged with a thickened wall; brow wound margin shows vital response.
E13 (Medical)	Time of death: 34.7 C at 8:20 AM in a 22 C room, early rigor in small muscles only, livor present and not yet fixed on the front surfaces (body not

	moved); death about 6:00 to 6:50 AM, minutes after the 6:05 AM entry and the first-smoothie routine.
DOC-6 (Records)	Door and key-code log: 8:41 PM cleaner code OUT; 9:47 PM storeroom entry, key code JW-0417; 9:58 PM storeroom exit, same code; 6:05 AM Okafor fob IN; 7:14 AM Nguyen fob IN; no other entries.
E14 (Records, released today)	HR memo: Whitfield terminated two weeks ago; storeroom key code JW-0417 issued to J. Whitfield; deactivation request submitted, marked PENDING, never processed.
E9 (Records, released today)	Former-staff group chat, 8:12 PM the evening before, from Whitfield's account: 'she'll get what's coming, I'll make it right.' Platform metadata: send time verified, account active.
E15 (Records, released today)	Supplier invoice: the protein-base lot is certified nut-free at delivery, lot number matching both containers. Streaming-platform log: Boone live on camera from his own lounge 8:00 to 11:30 PM, unbroken.
Mechanism chain (from Day 14)	Primed immune system plus peanut protein swallowed; mast cells dump their contents and tryptase spikes; the airway lining swells and plugs; the airway closes. Cause: anaphylaxis from peanut exposure.
Branches pruned at today's tree session, with the exhibits that pruned them	Attack by force or strangulation: E11 (neck intact, no ligature furrow, no bruising, no defensive wounds). Poisoning: E10 (negative in every class). Peanut arrived from the supplier (accident before delivery): E15 (lot certified nut-free) and E5 (same-lot sealed container negative). Accidental contamination inside the lounge: weakened by E8 (gloved handling laid over normal use, sequence shows order), DOC-6 (a storeroom entry after closing under a code that should have been dead, E14), and E6 (the rescue device moved to a room where it never lived); the class judged that this branch cannot explain E6 and E8 together. Self-harm: no exhibit supports it.
Per person of interest, what sits in the columns (for item B2)	Nguyen: DOC-6 (first entry 7:14 AM), E8 (daily-use prints under the smudges, expected background), DOC-1 (911 call 7:16 AM with correct scene detail). Rao: DOC-6 (master key unused), E7 and E8 (no trace). Boone: DOC-6 (no code or key on the log), E15 (live on camera 8:00 to 11:30 PM), E7 and E8 (no trace). Whitfield: E7 and E-STR (fresh-root hair, individual-level profile, in the storeroom), DOC-6 and E14 (9:47 PM entry under a code issued to Whitfield, deactivation pending), E8 (glove smudges over the daily prints on the one contaminated container), E9 (8:12 PM message), E4 and E5 with E15 (contamination after delivery, absent from the sealed control), E6 (moved injector: consistent with the same person, but no prints or touch DNA were taken from the injector, so it is not tied to a hand).
Ceiling note the examiner attached	Classroom exhibits do not fingerprint or touch-DNA the auto-injector. Who physically moved it is an inference from convergence, not a directly proven act. A real charge needs court-grade labs and counsel; this classroom convicts nobody.

Use these values exactly as your team's data for Part B and Part E. Write "canned data set" at the top of Part B so Mr. Mendoza scores it as make-up work. Where the case file does not fix a number (room measurements, clock times, hair features), the value here is a classroom placeholder; your room's real numbers replace it.

PART B · WORK THE EVIDENCE

SEC 02

Lay the six threads side by side. For each, write what it supports on its own. Then count how many INDEPENDENT threads hold up the branch of the logic tree that survived.

THREAD: one team's lane of evidence: scene, trace, serology and DNA, chemistry, medical findings, records.

INDEPENDENT: two threads are independent when neither one depends on the other's method or sample. Two cards from the same thread are one voice, not two.

THREAD	EXHIBITS FROM IT THAT MATTER FOR THE SURVIVING BRANCH (E-NUMBERS)	WHAT THIS THREAD SUPPORTS ON ITS OWN, IN ONE SENTENCE	DOES IT ALSO WEAKEN ANY OTHER BRANCH? WHICH?
Scene			
Trace			
Serology and DNA			
Chemistry			
Medical findings			
Records			

PBS-U1-D16-B1

☐

Convergence table complete: six threads, E-numbers, a one-sentence independent contribution each. (Scored on the table.)

PBS-U1-D16-B2

☐

For each person of interest, write which closing sentence applies (the evidence shows it was not them; the evidence does not establish it was them; or the evidence implicates them) and the E-number that decides it.

PBS-U1-
D16-B3

☐

Count. How many independent threads support the surviving branch? If two of your supporting exhibits come from the same thread, how many independent threads is that? Does your draft claim meet the rule of at least four exhibits across at least three threads? Show the count.

PART C · WRITE THE CALL

SEC 03

Draft the manner-and-cause claim as one paragraph: the claim as the evidence supports it, at least four exhibits by E-number across at least three threads, the pruning reason for the branches that fell, and the strongest limitation. Stop there. Nothing is final tonight.

Claim ceiling. Your claim names manner and cause as the evidence supports them, states its strongest limitation, and stops there. The board and the report refine it; nothing is final tonight.

PBS-U1-
D16-C1

☐

Your writing:

PART D · VOCABULARY IN USE

SEC 04

PBS-U1-
D16-D1

☐

Use **corroborate** and **exonerate** correctly in one or two sentences about today's work. A definition alone does not count; use the words about something real.

PART E · SELF-CHECK AND EXIT

SEC 05

One line each. These come from today's pack; answer from memory first, then check.

PBS-U1-

D16-E1

☐

Why do records anchor the timeline more firmly than the time-of-death window?

PBS-U1-

D16-E2

☐

Write the two different suspect-closing sentences.

PBS-U1-

D16-E3

☐

What does a claim need before you may write it?

TURN IN

SLIP

Draft manner-and-cause claim: One-paragraph claim; Four exhibits cited across three threads; Strongest limitation stated; Matrix resolution sentences per suspect.

Hand this sheet to Mr. Mendoza before you leave. The notebook pages named on today's pack stay in your Investigative Notebook.

STANDARDS CITED ON THIS SHEET, AND HOW IT IS USED IN DATA-DRIVEN INSTRUCTION

REF

WebXam alignment. Principles and Practice of Biomedical Technology (code 072110), Biotechnology Research and Experiments (46.07 percent of the test), Ohio outcome 5.8 Biotechnology Research and Experiments.

Ohio Health Science	5.8.11	Draw conclusions and propose next steps based on observations and data analysis, recognizing that experimental results must be open to the scrutiny of others.
Ohio Health Science	5.8.9	Describe the relationships between variables using correlations and draw conclusions.
Ohio Health Science	1.2.7	Use problem-solving and consensus-building techniques to draw conclusions and determine next steps.
PLTW PBS framework	EXD-B.4	Draw logical conclusions from experimental data.
PLTW PBS framework	CCP-A.1	Synthesize information from multiple credible sources, such as literature, databases, policy documents, and diverse perspectives from multiple disciplines, to explore causes and solutions to problems.
PLTW PBS framework	CCP-B.2	Conduct research using credible resources to craft explanations and draw conclusions while acknowledging the limitations, opposing views, and biases.
Common Core	RST.9-10.8	Assess the extent to which the reasoning and evidence in a text support the author's claim or recommendation.
Common Core	WHST.9-10.1	Write arguments focused on discipline-specific content: precise claims, relevant evidence, and reasoning that connects them.
Common Core	WHST.9-10.9	Draw evidence from informational texts to support analysis, reflection, and research.
Common Core	HSN-Q.A.1	Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently, and choose and interpret the scale and the origin in graphs and data displays.
NGSS	SEP-7	Engaging in argument from evidence: evaluate the claims, evidence, and reasoning behind currently accepted explanations.

How this sheet is used in DDI. Each item carries a code (for example PBS-U1-D16-B2). Mr. Mendoza scores every item 0, 1, or 2 (2 = complete and correct, 1 = partly, 0 = missing or wrong) and records the scores by period and investigator code, never by name. The scores roll up into these skills:

PBS.S.16a	Lay evidence lines side by side and find where independent lines converge	items B1, B3, E3
PBS.S.16b	Use records as the timeline's skeleton and explain why	items A1, E1
PBS.S.16c	Close every person of interest by evidence, in the right sentence	items A2, B2, E2, D1
PBS.S.16d	Draft a claim with four exhibits across three threads and a stated limitation	items C1

Mastery rule. A skill is on track when at least two of its items score 2 (or its single item scores 2). A skill below that routes you to today's pack, SEC 02 (Background and briefing), and to the matching page on the portal, and it comes back as a warm-up question next week. These scores are Mr. Mendoza's instructional record for deciding what to reteach. They are not the report-card grade, which lives in Schoology.