



OHIO CSI FORENSIC DIVISION

UNIT 1 · MEDICAL INVESTIGATION · CASE STATIC

Period 1-2 · Statik Sound, a neighborhood recording studio

FORM NO. CSI-1-D17-S
CASE NO. JH-26-0831-A
REV. 2026-27
PAGE ____ OF ____

FOR EDUCATIONAL USE

OHIO CSI FORENSIC DIVISION

DO NOT DISTRIBUTE ANSWER KEYS

DAILY EVIDENCE SHEET

Oct 6 · Investigation Day 17 of 18 · Build the Board

OFFICIAL

WEBXAM · DOMAIN 2 BIOTECHNOLOGY RESEARCH AND EXPERIMENTS · OHIO OUTCOMES 5.8 AND 1.2

VOCABULARY IN BOLD IS DEFINED WHERE IT FIRST APPEARS

INVESTIGATOR CODE (PERIOD + CODE, NOT YOUR NAME)	TEAM	DATE
		Oct 6, 2026

WHY TODAY MATTERS, IN PLAIN ENGLISH

SEC 00

Real detectives build an evidence board so that anyone can follow the reasoning and attack its weakest link, because a claim that cannot survive a hard question is not ready. Today you build your board and defend it under **cross-examination**.

Today you will: build the evidence board from the card kit: your case's reasoning made physical, then defended under peer **cross-examination**.

The ten-year idea: If the board cannot show it, the report cannot claim it. A conclusion you cannot diagram is a conclusion you do not understand.

SINGLE POINT OF FAILURE: one card that carries several links by itself, so if it falls, everything hanging on it falls too.
Analogy to hold onto: one bolt holding the whole shelf.

CROSS-EXAMINATION: another team reads your board cold and attacks the reasoning, never the people, so the weak link shows before the report is written. Analogy to hold onto: a practice scrimmage.

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

SEC 01

An evidence board is not decoration; it is an argument with geography. The center holds the finding. Around it: the evidence cards, each connected to what it supports, with thread-colored lines showing WHICH kind of evidence carries each link. A board where every line runs through one card is a confession of weakness; a board with three independent paths to the center is corroboration made visible.

Build standard: every card carries its E-number; every connection line has a one-word label (supports, excludes, times, locates); exonerated suspects stay ON the board with their clearing evidence attached, because showing why the innocent are innocent is half the finding.

Then **cross-examination**: another team reads your board cold and attacks: which line is weakest, which card is carrying too much, what alternative explanation survives your layout. The protocol is professional: attack the reasoning, never the people; every attack cites the board itself; the defending team answers from exhibits or concedes honestly. Concessions get repaired tonight, and a repaired board is a stronger board.

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

PBS-U1-
D17-A1

The reading calls a board an argument with geography. What sits at the center, and what surrounds it? Copy the first three words of the sentence you used.

PBS-U1-
D17-A2

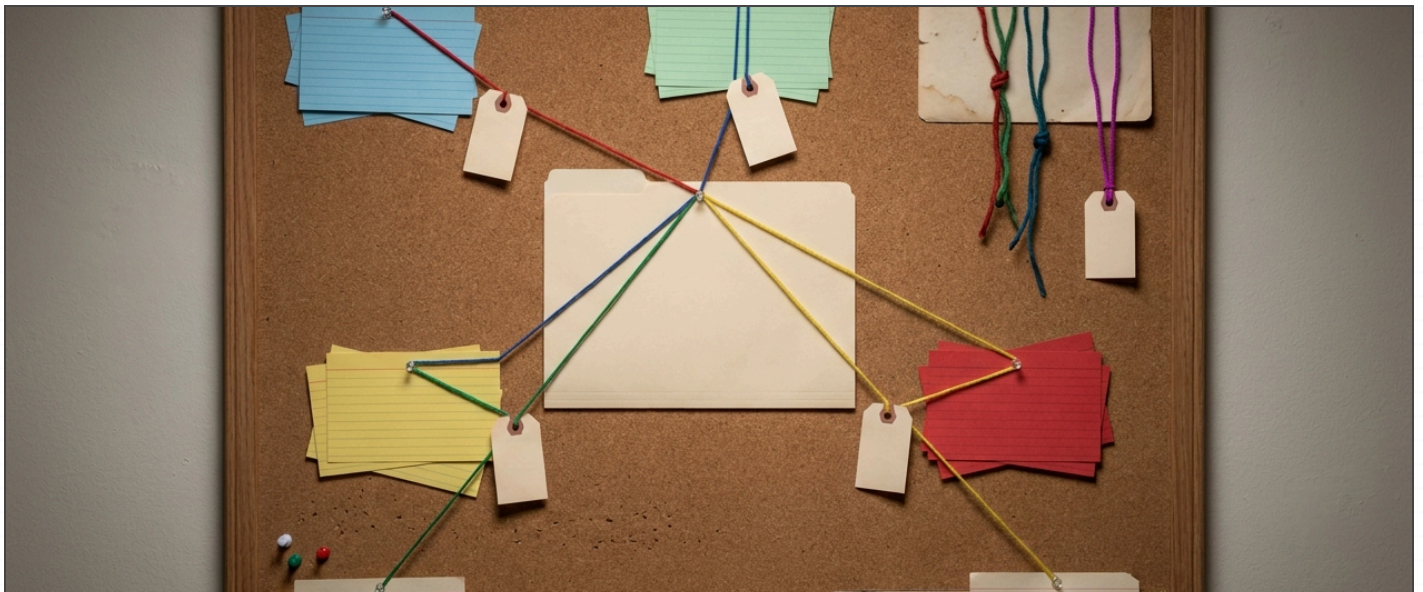
What is the protocol for cross-examination, according to the reading, and what does every attack have to name?

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

SEC 01A

Mapping a practice board: the Larkspur greenhouse (made up)

The greenhouse case from the Day 16 example (exhibits P1 to P7, draft claim: accidental heat death in a sealed greenhouse with a failed fan, old heart disease contributing) goes onto a board, and you must map its lines, find the single point of failure, and repair it.



What to notice: Notice how many cards reach the center card on their own line: independence is visible as separate lines from separate colors, and a card that many lines pass through is where a board can fail.

1. Pin the center card (the draft claim) and one color per thread around it: scene P1 and P6, chemistry P2, medical P3, records P4, P5, P7. Pin the pruned-branch cards (homicide, self-harm) and the coworker's card off to the side, because cleared people stay on the board. Result: every card has an E-number-style label and a color.
2. Draw and label each line with one word. P4 to center: supports. P5 to P4: times (the text puts him inside during the log's hot window). P6 to P4: supports (the dead fan explains why the room heated). P2 to center: supports. P3 to center: supports (contributing condition). P1 to the homicide card: excludes. P3 to the homicide card: excludes (no injuries). P7 to the coworker card: excludes. Result: eight labeled lines; nothing unlabeled stays up.
3. Count colors reaching the center directly. Records (P4), chemistry (P2), medical (P3) touch it; scene arrives only through P4. Result: three colors at the center.
4. Count support paths to the center and how many pass through one card. Paths: P4; P5 via P4; P6 via P4; P2; P3 = five. Three of five run through P4: $3 \text{ divided by } 5 = 0.6 = 60 \text{ percent}$. Result: P4, the thermostat log, is the single point of failure; if the log is wrong, three of five paths fall at once.
5. Repair by adding independent paths, not by adding more string. Connect P6 directly to the center with its own 'supports' line (a burned-out fan and jammed shutters show a sealed hot room without needing the log) and P5 directly with 'times' (the text stands on the phone record, not on the thermostat). Result: five paths, one through P4: $1 \text{ divided by } 5 = 20 \text{ percent}$, and four colors now reach the center.
6. Write the softer sentence the cross-examiner earned. Result: 'The inside temperature rests on one log, but the fan failure (P6) and the dehydration values (P2) agree with it independently.'

Finished product: Board map: eight labeled lines, four thread colors reaching the center after repair, single point of failure P4 reduced from 60 percent of support paths to 20 percent by connecting P6 and P5 to the center on their own evidence.

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

The board kit came out (case plaque STATIC, JH-26-0831-A; six thread labels; an E-number card for every exhibit; line labels; the layout rubric). F team chaired a paper layout first, then the board went up, then another team cross-examined it. Below is what was on the board and what each card carries, so you can map it in Part B.

Center card (the class's Day 16 draft claim)	Manner natural: complications of diabetic ketoacidosis from a type 1 diabetes diagnosed long ago and recently untreated, with an accidental head injury from a fall onto the console corner contributing; every suspect cleared by evidence.
Scene thread cards	E1 (body position, cabinet across the legs, no drag marks), E3 (passive drops and contact smear, no impact or cast-off).
Trace thread cards	E7 (H1, H2 victim; H3 Cole with no root tag), E8 (victim 12-point; Cole aged partial; cleaner elimination; can print victim only).
Serology and DNA thread cards	E2 and E2b (presumptive positive; type B; STR L1 and L2 = victim), E4 and E-STR (can rim DNA = victim; L5 Cole and L6 Vasquez excluded).
Chemistry thread cards	E5 (meter 412 then HI), E10 (screens negative; vitreous glucose 612; ketone 8.2; potassium 6.4; bicarbonate 9), E6 (expired sealed insulin pen).
Medical thread cards	E11 (laceration with paint transfer and vital response; no fracture; no bleeding inside the skull; no defensive wounds), E12 (islet destruction; kidney osmotic change; wound vital response), E13 (room temperature, rigor passed, livor fixed anterior; death late Saturday into Sunday).
Records thread cards	DOC-6 (door log: Cole OUT Fri 9:02 PM, Bell IN Sat 2:15 PM, DOOR HELD Sun 3:00 AM, Cole IN Mon 7:38 AM), E9b (DMs 11 months old), E14 (Okoye on stage Sat 10:14 PM), E15 (HVAC fault explains DOOR HELD alarms).
Suspect cards that stay on the board with their clearing cards	Cole: DOC-6, E7, E8, E-STR. Vasquez: E9b, E2b, E-STR, E7 and E8 (no trace). Okoye: DOC-6, E14, no trace. Tran: DOC-6 (master key unused), never claimed present, no trace.
Line labels and what each means	supports = this card is evidence FOR the finding it connects to. excludes = this card rules something or someone out. times = this card fixes a moment or a window. locates = this card fixes a place or a position.
Thread colors	The kit does not fix colors; write the color your class assigned to each thread label (ask a teammate or check the board photo at the teacher station).
Independence reminder for the count	E5 and E10 are both chemistry: two cards, one voice. E11, E12, and E13 are all medical: one voice. The center is strong only if different colors reach it.
Canned cross-examination attack (for Part C if you were absent)	"Your center card leans on the panel numbers, but the meter and the pen only prove a diagnosis existed; they do not prove what happened this weekend. Which exhibit ties the numbers to the timeline?"

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.

Map your own board. Every line gets one label word: supports, excludes, times, or locates. Then count how many thread colors reach the center.

LINE LABEL: the one word that says what a connection does: supports, excludes, times, or locates. A line with no label is decoration.

CARD (E-NUMBER)	CONNECTED TO	LINE LABEL (SUPPORTS, EXCLUDES, TIMES, LOCATES)	THREAD COLOR

PBS-U1-
D17-B1

☐

Board map complete: every listed line labeled, every card with a thread color. (Scored on the table.)

PBS-U1-
D17-B2

☐

Which card on your board carries the most links alone? What happens to the claim if that card is wrong, and what is your repair?

PBS-U1-
D17-B3

☐

Count. How many thread colors reach the center? How many support paths reach the center in total? How many of those paths run **THROUGH** your single-point-of-failure card, and what fraction of the center's support is that (show the division)?

Write the cross-examination record. Include four parts: the strongest attack the other team made on your board, in their words; your answer with the E-number that holds it; the attack you could NOT fully answer; and the repair or the softer sentence you will carry into the report because of it.

Claim ceiling. The board shows what the evidence supports. Decoration, drama, and red string with no label add nothing; the rubric scores connections, not aesthetics.

PBS-U1-
D17-C1

☐

Your writing:

PART D · VOCABULARY IN USE

SEC 04

PBS-U1-
D17-D1

☐

Use **single point of failure** and **cross-examination** 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-
D17-E1

☐

Why do exonerated suspects stay on the board?

PBS-U1-
D17-E2

☐

What makes a board's center strong?

PBS-U1-
D17-E3



A cross-examiner finds a card carrying three links alone. What did they find?

TURN IN

SLIP

Board rubric self-check: Rubric scored with team signatures; Weakest-link named honestly; Repair completed or scheduled.

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	5.8.12	Prepare and present findings using scientific reports.
Ohio Health Science	1.2.2	Deliver formal and informal presentations.
Ohio Health Science	1.2.4	Use negotiation and conflict-resolution skills to reach solutions.
Ohio Health Science	1.2.10	Use interpersonal skills to provide group leadership, promote collaboration and work in a team.
PLTW PBS framework	COL-A.4	Employ a peer review process to give effective and constructive feedback to meet given outcomes.
PLTW PBS framework	COL-A.2	Demonstrate teamwork and describe the importance of each team member's contribution to the project.
PLTW PBS framework	EXD-A.8	Communicate experimental findings with appropriate audiences both orally and in writing.
Common Core	RST.9-10.7	Translate quantitative or technical information expressed in words into visual form (a table or chart) and translate information expressed visually or mathematically into words.
Common Core	WHST.9-10.1	Write arguments focused on discipline-specific content: precise claims, relevant evidence, and reasoning that connects them.
Common Core	MP.3	Construct viable arguments and critique the reasoning of others.
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-D17-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.17a	Build an argument with geography: cards, labeled lines, visible independence	items A1, B1, E2
PBS.S.17b	Find the weakest link and the single point of failure	items B2, B3, E3, D1
PBS.S.17c	Give and take a cross-examination professionally	items A2, C1
PBS.S.17d	Keep exonerations on the board and say why	items E1

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.