

The Law-Related Education Academy is sponsored by the Arizona Foundation for Legal Services & Education with funding made possible by the Arizona Department of Education.

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**“CSI: Cracking the Case with Forensic Science” Academy**  
(Middle/High School)  
**Fingerprinting Lesson Plan**

*Please obtain administrator approval prior to implementing this lesson.*

**Objectives: Students will...**

- learn how to identify fingerprint patterns.
- practice lifting latent prints using proper evidence collection techniques.
- Examine the importance of careful documentation.

**Protective Factor Developed:** Feelings of Efficacy

**Materials:**

- ✓ Facilitator PDF and projection capabilities
- ✓ White balloon, deflated (1 per person)
- ✓ Black ink (1-2 per small group)
- ✓ Fingerprint powder (baby powder or cocoa powder can be used as substitute; 1-2 per group)
- ✓ Fingerprint brushes (feather as a substitute; 1-2 per group)
- ✓ Clear tape (1-2 per group)
- ✓ Plastic cup (1 per person)
- ✓ Evidence log (1 per person)
- ✓ Wipes for cleanup (1-2 per person)

**Prior to the Lesson:**

- ✓ Communicate with the classroom teacher about...
  - the facilitator pdf and the ability to project.
  - the materials being used and potential mess that can be made. Discuss school policies regarding the materials/activity.

**Timeframe:** 45 Minutes

**Team Teaching:** For effective implementation of Law Related Education (LRE), team teach with the classroom teacher by...

- Having both the officer and teacher rotate among students and to different groups. Both instructors will provide positive feedback and engage in friendly conversations with students. This procedure will help reduce classroom disruptions, increase student engagement, and build supportive relationships with students.
- Encouraging classroom teachers to participate in all activities by injecting clarification statements by relating relevant content to their curriculum. In this method, students will see more connections to their student life and be willing to carry over concepts and skills learned in LRE.
- Assigning the classroom teacher part of the lesson instructions. Team teaching with the classroom teacher enables the students to further see the importance of LRE lessons. It also provides an opportunity for the classroom teacher to demonstrate teaching skills conducive to effective teaching. Student attention can be maintained more easily with different voices and personalities experienced throughout the lesson.

**Lesson:**

1. Ask students, “What is a fingerprint?” Discuss how fingerprints are tiny ridges on our fingers that form unique patterns.
2. Use the **facilitator pdf** to show the three main fingerprint patterns — arches, loops, and whorls. Explain that each finger can have a different pattern.
3. Divide class into small groups (3-4 students) and distribute a **white balloon** to each student and **black ink** to each group.
4. Ask students to dip one finger in black ink and press it onto the flat part of the balloon.
5. Have them blow up the balloon to enlarge the fingerprint.
6. Ask students to identify whether their print is an arch, loop, or whorl. Encourage them to try more fingers and compare.
7. Have students use **wipes** or paper towels to clean their fingers and work area.
8. Distribute **fingerprint powder, brushes, and clear tape** to each group. Distribute a **plastic cup, notecards**, and an **evidence log** to each student.
9. Explain that oil helps fingerprints stick. Have students touch their head, face, or behind their ear to collect oil.
10. Model how to pull a print using a plastic cup: apply an oily fingerprint, dust with powder, press tape over it, and place it on a notecard.
11. Use the **slide deck** (or white board) to demonstrate how to complete a fingerprint card (notecard) and evidence log:
  1. Notecard: Front = pulled print; Back = name, date, report number, short write-up. The writeup should include where and what it was found on (*example write up: Latent print pulled from a green aluminum Sprite soda can located on the desk surface, positioned approx. 6 inches to the right of the desk lamp in the southwest corner of the office.*)
  2. Evidence Log: Record the evidence item and location.

11. Have groups practice pulling prints from their plastic cup.
12. Allow 10–15 minutes for practice while circulating to assist.
13. *Optional:* When ready, have them pull prints from the evidence they collected during the last lesson.
14. Remind students how these skills tie back to handling evidence in a real investigation and how accurate details can make or break a case.
15. Debrief by leading a whole group discussion on the following questions:
  - What did you notice about the different fingerprint patterns?
  - Why are careful collection and documentation important?

*Facilitator Suggestion:* Have students take all items with their fingerprints with them after the lesson so it is clear that no personal information or biometric data was collected.

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**Arizona State Standards Correlations**

**Social Studies**

8.SP3.7 Construct and present explanations using reasoning, correct sequence, examples, details with relevant information and data, while acknowledging the strengths and weaknesses of the explanations.

8.SP3.8 Present arguments and explanations on topics of interest to others to reach multiple audiences in and outside of the classroom print, oral, and digital technologies.

HS.SP3.8 Present arguments and explanations that feature ideas and perspectives on issues and topics to reach a range of audiences and venues using print, oral, and digital technologies.

**English Language Arts**

7.SL.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 7 topics, texts, and issues, building on others’ ideas and expressing their own clearly.

7.SL.4 Present claims and findings, emphasizing salient points in a focused, coherent manner with pertinent descriptions, appropriate vocabulary, facts, details, and examples; use appropriate eye contact, adequate volume, and clear pronunciation.

8.SL.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 8 topics, texts, and issues, building on others’ ideas and expressing their own clearly.

8.SL.4 Present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence, sound valid reasoning, and well-chosen details; use appropriate eye contact, adequate volume, and clear pronunciation.

9-10.SL.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9–10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.

9-10.SL.4 Present information, findings, and supporting evidence in an organized, developed style appropriate to purpose, audience, and task, allowing listeners to follow the speaker's line of reasoning, message, and any alternative perspectives.

11-12.SL.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11–12 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.

11-12.SL.4 Present information, findings, and supporting evidence in an organized, developed style appropriate to purpose, audience, and task, allowing listeners to follow the speaker's line of reasoning, message, and any alternative perspectives.