Lesson Plan: Auditing for CO Safety

Grade Level: 9–12
Time Needed: 1–2 class periods (45–90 minutes total)
Objective: Students will apply science, health, and civic responsibility by conducting a real-world audit of their school property using the **CO Safety Check Toolkit**.

Key Messages

1. Carbon monoxide (CO) is invisible and deadly, but preventable with alarms, maintenance, and smart design.

2. Real-world safety depends on *both* technical standards and community action.

3. Students can make a direct impact by identifying risks and presenting solutions within their communities and schools.

Materials Needed

- **Download in advance:** CO Safety Check Toolkit
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- Optional download: Five-Year Snapshot

- Floor plan, sketch, or map of the school building (if available).

- Clipboards, pens, or digital devices for note-taking.

- Access to a projector or whiteboard for group presentations.

Lesson Outline

1. Real Incidents, Real Consequences (10 minutes)

- Share 1–2 recent case studies of CO poisoning in schools (from the Snapshot).
- Ask: *“What would happen if this occurred here? How would students know? How would staff respond?”*
- Connect to their personal role: *“Today, you’ll become CO Safety Investigators for your school.”*

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2. Review CO Basics (10 minutes)

- Quick recap of what CO is (produced by incomplete combustion).
- Symptoms of exposure (headache, dizziness, nausea, confusion).
- Prevention layers: **Alarms + Maintenance + Awareness.**
- Show an example CO alarm and play the alarm sound.

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3. Introducing the Toolkit (5 minutes)

- Explain: *“We’ll use the **CO Safety Check Toolkit** to look at how safe our own school building is. This is the same resource community leaders and parents can use in any building.”*
- Hand out/download the toolkit. Review the categories (alarms, equipment, risk areas, safety procedures).

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4. Conducting the Audit (20–30 minutes)

- Split students into small groups (3–4). Assign each group a building area: cafeteria, gym, classrooms, bus loading zone, mechanical/boiler room (if safe/allowed), etc.
- Students use the Toolkit to inspect and note:
    - Are CO alarms present and functional?

    - What fuel-burning equipment is nearby?
    - Are there posted safety procedures?
- The teacher circulates to guide and ensure safe exploration.

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5. Analyzing Findings (10–15 minutes)

- Groups regroup and tally results.
- On the board, create a master checklist: *Strengths* (areas with good coverage) and *Concerns* (areas missing alarms or showing risk factors).
- Discuss patterns: Where are the biggest vulnerabilities?

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6. Presenting & Advocating (15–20 minutes)

- Each group presents one “finding” and one “recommendation.”
- Brainstorm as a class: *“If we were presenting to the principal or school board, what would we want them to know?”*
- Optional: Draft a letter, infographic, or presentation summarizing the audit.

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7. Wrap-Up & Take-Home Connection (5 minutes)

- Encourage students to use the Toolkit at home with their families.
- Reinforce that *student voices can influence real safety decisions.*

Assessment / Learning Outcomes

By the end of the lesson, students will:

- Apply CO knowledge in a real-world setting.
- Identify safety strengths and gaps in their school.
- Work collaboratively to assess and analyze data.
- Communicate findings through advocacy and recommendations.
- Take the **CO Safety Check Toolkit** home as a resource for family and community.