



## Using A.I. to Enhance Your Safety Training

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## Let's Talk About Using AI in Safety Training

- In this session:
  - Review what AI can (and can't) do
  - Discover how to write great prompts
  - Leave with ready-to-use training tools

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# How AI Fits Into the Trainer’s Toolbox

- Think of AI as your assistant, not your replacement
- Great for:
  - Brainstorming safety ideas
  - Writing toolbox talks or quizzes
  - Creating visuals or images
- Needs your expertise to stay accurate and compliant



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# What AI Does Well (and what it doesn’t)

Strengths	Limitations
<ul style="list-style-type: none"><li>• Writing</li><li>• Summarizing</li><li>• Simplifying complex topics</li><li>• Personalizing tone</li><li>• Creating examples</li></ul>	<ul style="list-style-type: none"><li>• Regulatory accuracy</li><li>• Interpreting emotions</li><li>• Real-world distinction</li><li>• Graphics</li></ul>

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## Prompts: Your Message to the Machine

- Prompt = Your instruction to AI
- What you want, how you want it, and who it's for
- Clearer prompts = better results

Example:

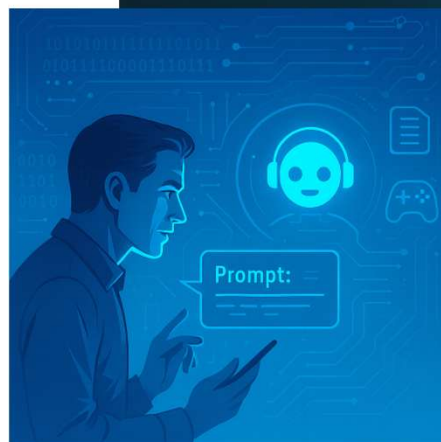
*“Act as a safety trainer. Create a 3-minute toolbox talk on ladder safety for new workers, in a friendly tone.”*

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## Why Prompts Matter

**Great prompts include:**

- **Role** (who you want AI to be)
- **Task** (what you want it to do)
- **Tone** (how you want it to sound)
- **Audience** (who it's for)
- **Format** (how you want it delivered)



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## Better Prompts = Better Outcomes

**Weak Prompt:** *“Write about PPE”*

**Better Prompt:** *“Write a 3-minute toolbox talk on PPE selection for landscaping crews working in summer heat. Keep it friendly and use one real-world example”*

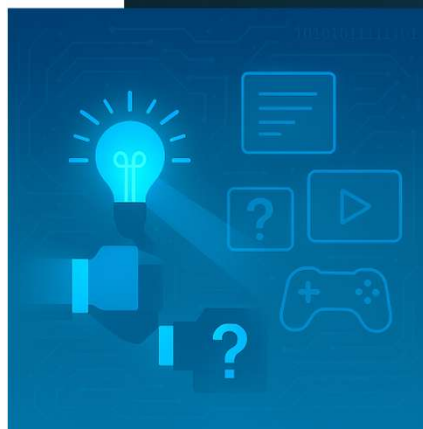
Pro Tips:

- Be specific about who it’s for and what tone to use
- Add context like job type, hazard, industry, etc.
- Always verify accuracy

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## Using AI to Develop Training Tools and Materials

- Customized lesson planning
- Create slides, posters, infographics
- Simulate jobsite / hazard scenarios
- Quizzes / knowledge checks
- Learning games / activities
- Translate training materials
- Case studies



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Let’s Try It: Build a Safety Quiz

Prompt Example:

*“I’m a safety trainer, generate five multiple-choice quiz questions on forklift safety with answers and explanations, for my class of new forklift operators.”*

Role


Task

Tone

Audience

Format

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 ChatGPT

1. Before operating a forklift each day, the operator should:

A. Check the oil and fuel levels only

B. Conduct a visual and functional inspection

C. Wait for maintenance to perform all checks

D. Only inspect the tires and forks

✔ Correct Answer: B. Conduct a visual and functional inspection

Explanation: OSHA requires operators to inspect forklifts before each shift to ensure safe operation. Inspections typically include tires, brakes, steering, horn, warning lights, forks, and hydraulic systems.

2. When traveling with a load, the forks should be kept:

A. As high as possible to improve visibility

B. 8–10 inches off the ground and tilted slightly back

C. Level with the operator’s shoulders

D. Pointed downward to stabilize the load

✔ Correct Answer: B. 8–10 inches off the ground and tilted slightly back

Explanation: Keeping the load low and tilted back improves stability and prevents tip-overs by lowering the forklift’s center of gravity.

3. When should a forklift operator sound the horn?

A. Only when entering a building


B. Only during start-up

C. When approaching intersections, blind corners, or pedestrians

D. Only if another forklift is nearby

✔ Correct Answer: C. When approaching intersections, blind corners, or pedestrians

Explanation: Using the horn alerts others to the forklift’s presence and helps prevent collisions—especially in high-traffic or low-visibility areas.



Question 1: What is the primary purpose of conducting a pre-shift inspection on a forklift?

A) To check if the forklift’s paint is scratched

B) To ensure the forklift is safe to operate and identify any defects

C) To verify the forklift’s maximum speed

D) To clean the forklift for aesthetic reasons

Correct Answer: B

Explanation: Pre-shift inspections are essential to identify potential hazards or mechanical issues before operation, preventing accidents and ensuring compliance with safety standards like those from OSHA.

Question 2: When operating a forklift, what should you do if the load obstructs your forward view?

A) Drive in reverse with the load trailing

B) Raise the load higher to see underneath

C) Proceed slowly while honking the horn continuously

D) Ask a pedestrian to guide you verbally

Correct Answer: A

Explanation: Driving in reverse allows better visibility when the load blocks the forward view, reducing the risk of collisions. This is a standard safe practice to maintain control and awareness of surroundings.

Question 3: What is the recommended action when approaching a blind intersection on a forklift?

A) Speed up to clear the area quickly

B) Honk the horn and slow down

C) Turn off the engine to listen for others

D) Flash the lights repeatedly without slowing

Correct Answer: B

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Let’s Try It: Craft a Toolbox Talk

Prompt Example:

*“I’m a supervisor, write a 3-minute toolbox talk on heat stress for outdoor workers in California. Keep it conversational and fact-based.”*

Role

+

Task

+

Tone

+

Audience

+

Format

=

Great Output

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Copilot

Toolbox Talk: Heat Stress Awareness

Hey team, gather up for a quick chat about something that’s easy to overlook but can hit hard –heat stress. We’re working outdoors in California, and whether it’s summer or a warm fall day, the sun doesn’t mess around.

**What Is Heat Stress?**

Heat stress happens when your body can’t cool itself down fast enough. That can lead to heat exhaustion or even heat stroke—which is a medical emergency. And here’s the thing: It doesn’t have to be 100°F to be dangerous. High humidity, direct sun, and hard physical work all add up.

**Know the Signs**

Let’s keep it simple. Watch out for:

- Heavy sweating
- Dizziness or lightheadedness
- Headaches
- Muscle cramps
- Nausea or vomiting
- Confusion or fainting

If you or a coworker show these signs, **don’t push through it**. Speak up and get help.

**Stay Ahead of the Heat**

Here’s what we can all do:

- Hydrate like it’s your job. Water every 15–20 minutes, even if you’re not thirsty.
- Dress smart. Light-colored, breathable clothing and a wide-brim hat can make a big difference.
- Take breaks. Use shade or air-conditioned spaces when possible. California law requires rest breaks in the shade when temps hit 80°F or higher.
- Ease into it. If you’re new to the heat or just coming back from time off, your body needs time to adjust.

Gemini

Toolbox Talk: Beating the Heat – Cal/OSHA Basics (3 Minutes)

Good morning, team. Let’s talk about something that affects every one of us when we’re working outdoors: heat stress. California heat is no joke, and heat illness can go from a slight headache to a life-threatening emergency in minutes.

Our goal today is simple: review the four required elements of Cal/OSHA’s Heat Illness Prevention standard—Water, Rest, Shade, and Training—and make sure we all know the signs.

**1. Water: The Fuel Tank**

- The Rule: We have to provide and encourage you to drink enough cool, fresh, potable water.
- What you need to do: Don’t wait until you’re thirsty. Thirst means you’re already dehydrated. Cal/OSHA says you should have access to at least one quart of water per hour. That’s four full 8-ounce cups every hour.
- Action: Keep your water bottle full, keep it close, and keep sipping constantly, all day long. If the water supply runs low, tell your supervisor immediately.

**2. Shade: The Quick Cooldown**

- The Rule: When the temperature hits 80°F or higher, shade must be present.
- What you need to do: Use the shade. We encourage you to take a preventative cooldown rest in the shade when you feel you need it, and it must be for at least five minutes. Do not push through if you feel overheated.
- Action: If you need a cool-down rest, take it. Step into the designated shade area, cool off completely, and only return to work when you feel better. If you ask for a cool-down rest because you feel sick, we will monitor you.

**3. High Heat Procedures (95°F and Above)**

- When the temperature reaches 95°F or above, we must implement High Heat Procedures. This means we’re watching each other even closer, and for certain industries (like construction and agriculture), we are required to take a minimum 10-minute cool-down break

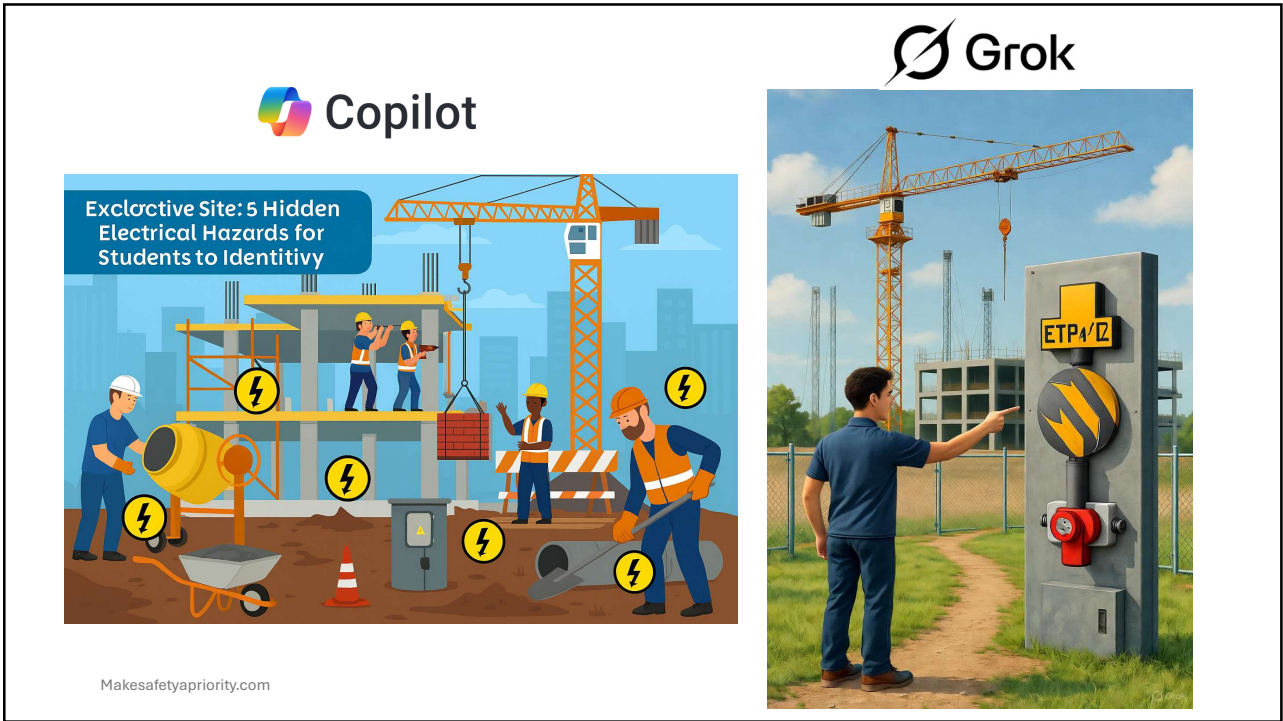
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# Let's Try It: Graphic "Find the Hazards"

Prompt Example:  
"Create a graphic of a construction site scenario with five hidden electrical hazards for students to identify."



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Let’s Try It: Create a Case Study

Prompt Example:

*“Create a short case study about a lockout/tagout procedure in a food processing plant, involving an equipment operator, with 2–3 realistic errors in how the procedure is applied. Students will be required to identify and explain the errors or compliance issues based on 1910.147. 150 words.”*

Role

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Task

→

Tone


→

Audience

→

Format

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 ChatGPT

**Case Study: Lockout/Tagout in the Food Processing Line**

Miguel, an equipment operator at a frozen-foods plant, is assigned to clear a jammed conveyor on the packaging line. He shuts off the control switch but doesn’t isolate the main electrical disconnect, believing the “off” button stops all power. Pressed for time, he also skips verifying zero energy before reaching in. Because maintenance uses their own locks, Miguel attaches a personal tag only, noting he’ll be “back in a minute.” While he’s clearing debris, a coworker in another area re-energizes the line to test sensors, unaware Miguel is inside the guarded zone. The belt jerks forward, narrowly missing his arm.

**Errors to identify:**






1. Failure to isolate and lock out all energy sources (1910.147(d)(3)).


2. No verification of de-energization (1910.147(d)(6)).

3. Improper use of tag without a lock (1910.147(c)(3)(iii)).

4. Behavioral lapse—time pressure overriding safety protocol.

Would you like me to create a short answer key or discussion guide for instructors next?





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### Smart Strategy


- **VERIFY** everything!
  - Content
  - Resources
  - Graphics
- Revise, revise, revise

**YOU are responsible for everything you create using AI**

What do you notice?



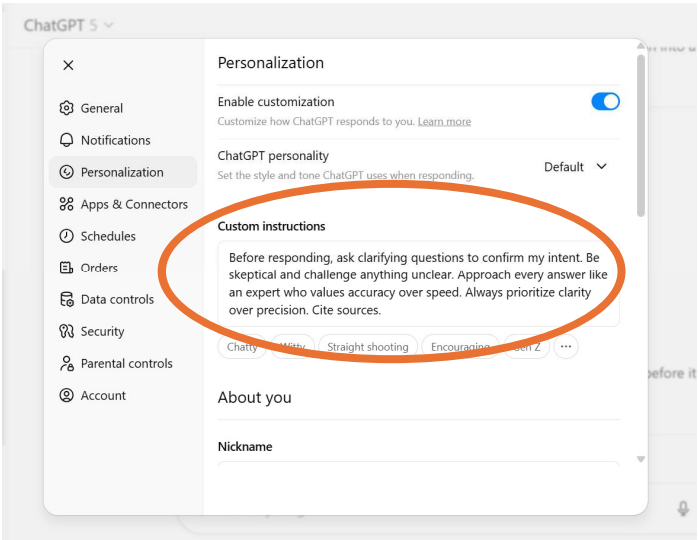
#### STEPS OF LOCKOUT/TAGOUT IN ELECTRICAL SAFETY



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### Pro Tip: Personalization

- Click on your name in left bottom corner
- Go to “Personalization”
- Use custom instructions



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# Using AI Responsibly

- Privacy
  - Worker names, addresses
  - Incident reports / medical data
  - Company financials
  - Job site photos / client logos
- Ethics
  - Avoid plagiarism
  - Give credit
  - Review outputs for biases (fairness, cultural sensitivity, etc.)

### AI Ethics and Data Safety



**Protect private data**

✓ Safeguard confidential information



**Stay ethical**

✓ Use AI responsibly and fairly

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# Free AI Resources to You Get Started

- Slide Design/Visuals: Canva, Copilot
- Lesson Planning: ChatGPT, Gemini
- Quizzes: Kahoot!, Grok
- Feedback & Forms: Google Forms
- Interactives: Mentimeter, Slido
- Music: Suno
- Text to Speech: Mureka



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## Key Takeaways

Start	Prompts	Verify	Think
<ul style="list-style-type: none"><li>Start small: experiment with one topic or tool</li></ul>	<ul style="list-style-type: none"><li>Provide detail for better outputs</li></ul>	<ul style="list-style-type: none"><li>Always verify AI outputs</li></ul>	<ul style="list-style-type: none"><li>Think of AI as a supportive partner, not a replacement</li></ul>

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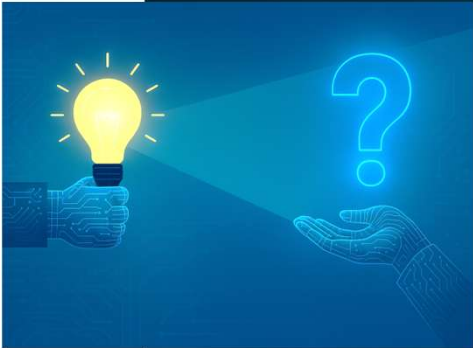
## Questions, Stories, and What’s Next

What’s one way you’ll try AI in your next training?

Contact Me!

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