

Phones In The Classroom?

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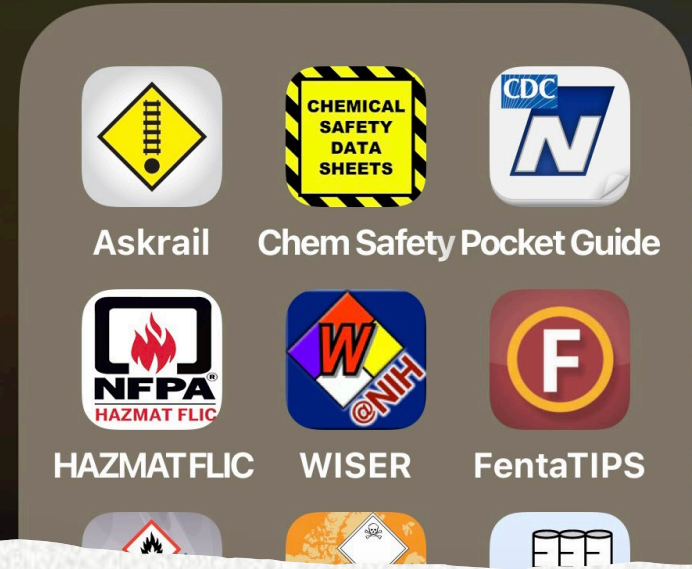
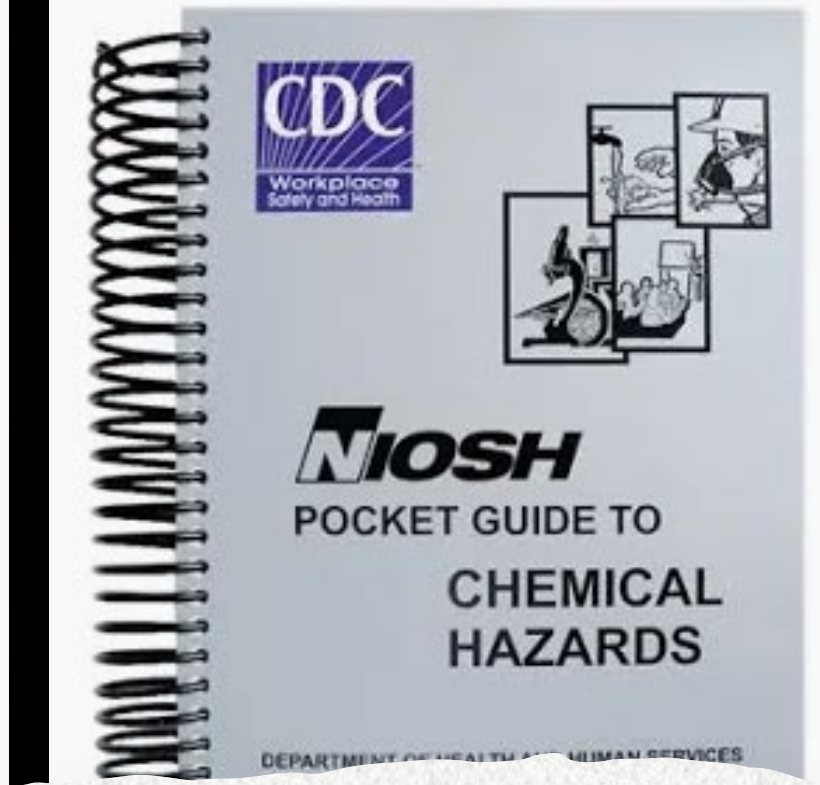
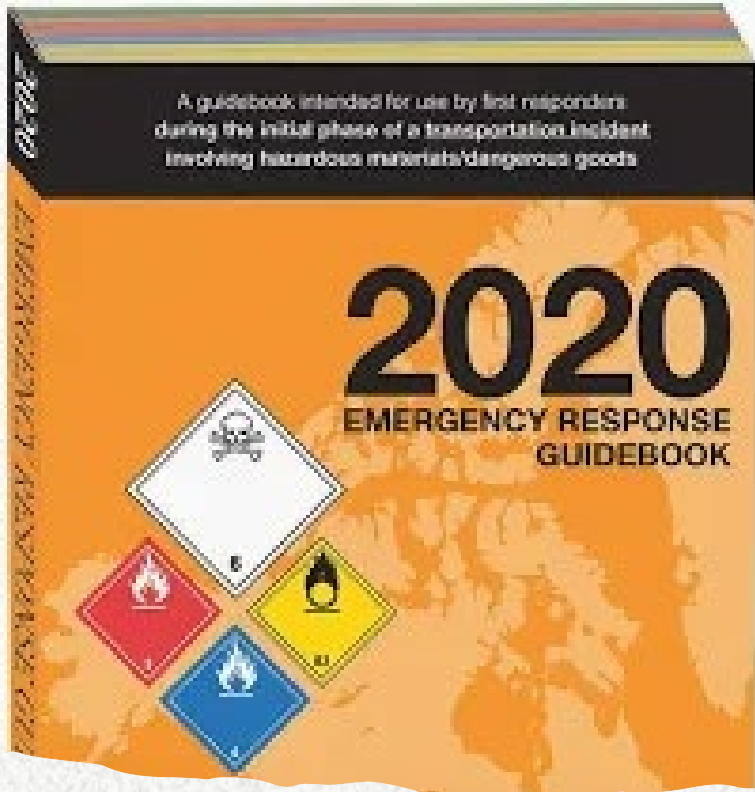
Phones In The Classroom?



- **Objectives:**
 - **Become familiar with Hazmat Apps currently available**
 - **Compare text resources with phone-based resources**
 - **Determine best times to encourage app usage**
 - **Understand possible technical issues with hazmat apps**



Hazmat



Survey says?

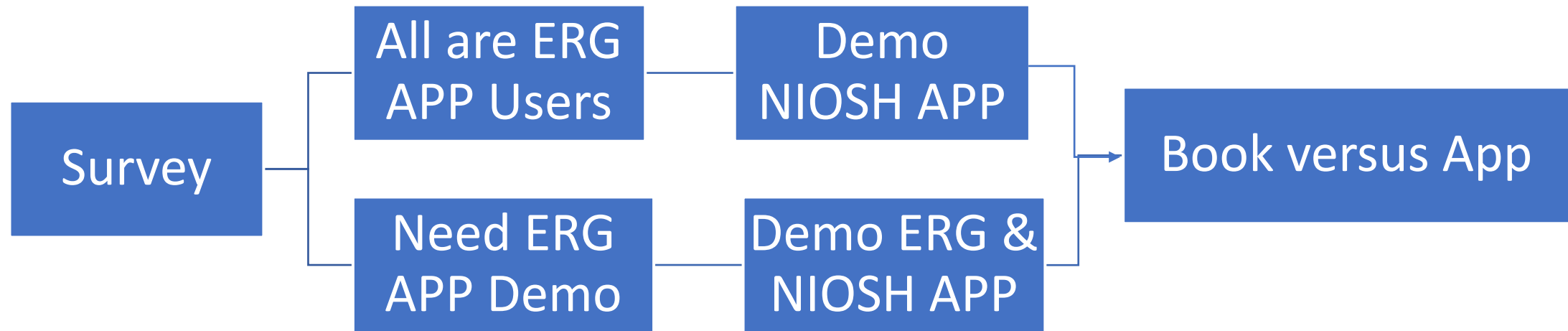
How many people use the ERG in your classrooms?

How many people use the NIOSH in your classrooms?

How many people use the ERG app in your classrooms?

How many people use the NIOSH app in your classrooms?

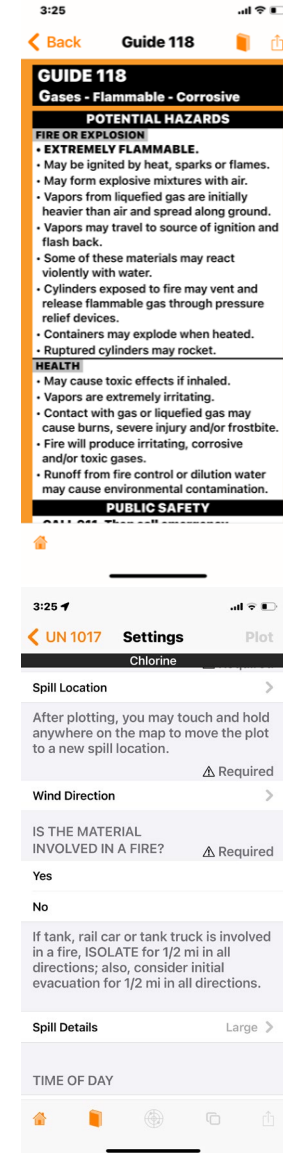
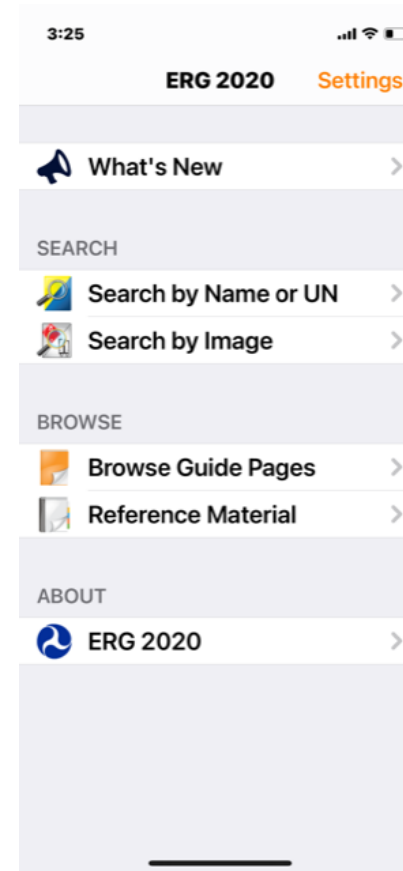
Phones In The Classroom?



ERG APP DEMO

- Follow along with your app.
 - Overview screen
 - Search by image, guide pages, references pages
 - Search by name, Propane, vinyl chloride, stabilized, (Note: 116P),
 - Chlorine (Note: protective distances at bottom of screen, plus sizes of containers)
 - Map options. (Note: app needs permission to access your location. Settings Location services)

Questions?



NIOSH APP DEMO

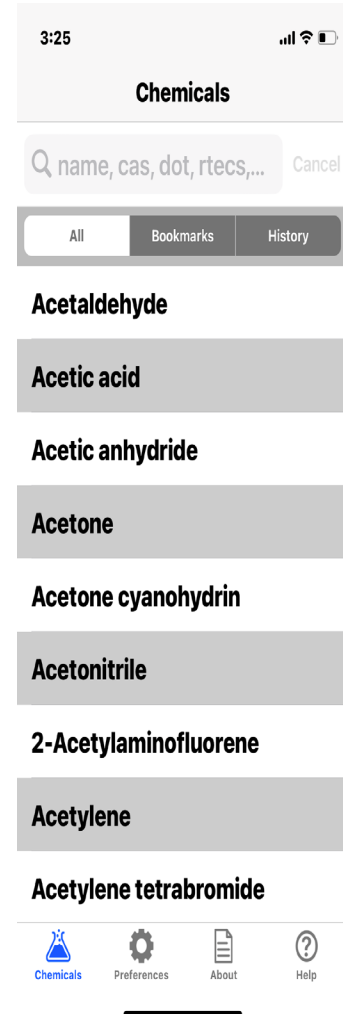
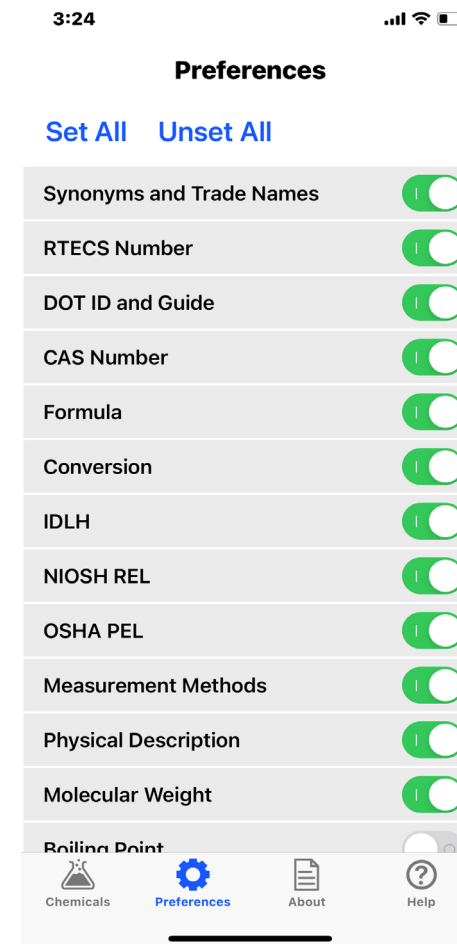
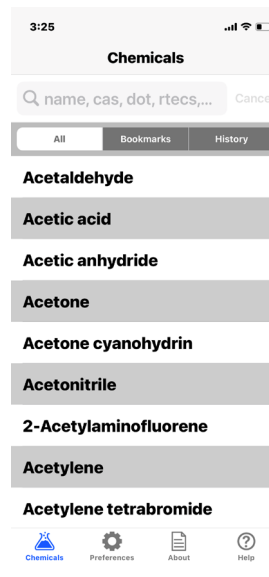
Follow along in your app

- Preferences
- About
- Help

Chemicals:

Propane (not in NIOSH guide so not in the app)
vinyl chloride
chlorine

Bookmarks, History





Off to the Races...

- Using the ERG/NIOSH versus the APP Experiment

Lessons Learned

Predictions:

When all are using the book,


- Easier to tell when someone ...
 - Has found the chemical
 - Is struggling to use the resource
 - Has spelling/ reading/ boredom issues



Best Practices:

- When first introducing the concept, I use the paper references.
- allows me to make sure group gets it
- identifies students who may need extra help
- Best to Demo the app with a HDMI connection
 - Students can see how you navigate the app
 - Remember to turn off your notifications or your internet/cell connection...
- Allow students the freedom to use either resource going forward
- App version can be useful when doing chemical demos, scenarios, or spur of the moment questions






Paper References still have their uses

- If students can use ERG for test (but not their phones)
- NIOSH paper copy tends to encourage students to “flip through” and discover new chemicals.
- Some students prefer them.
- However, spelling is a greater challenge in the paper versions.

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 **CAMEO Chemicals** ☰

Name (not case sensitive)

Example: chlorine Search

CAS Number (dashes optional)




Example: 7782-50-5 Search

UN/NA Number (4-digit number)

Example: 1017 ▼ Search

Need more options? Try the [advanced search](#).

[How does this search work?](#) ▶

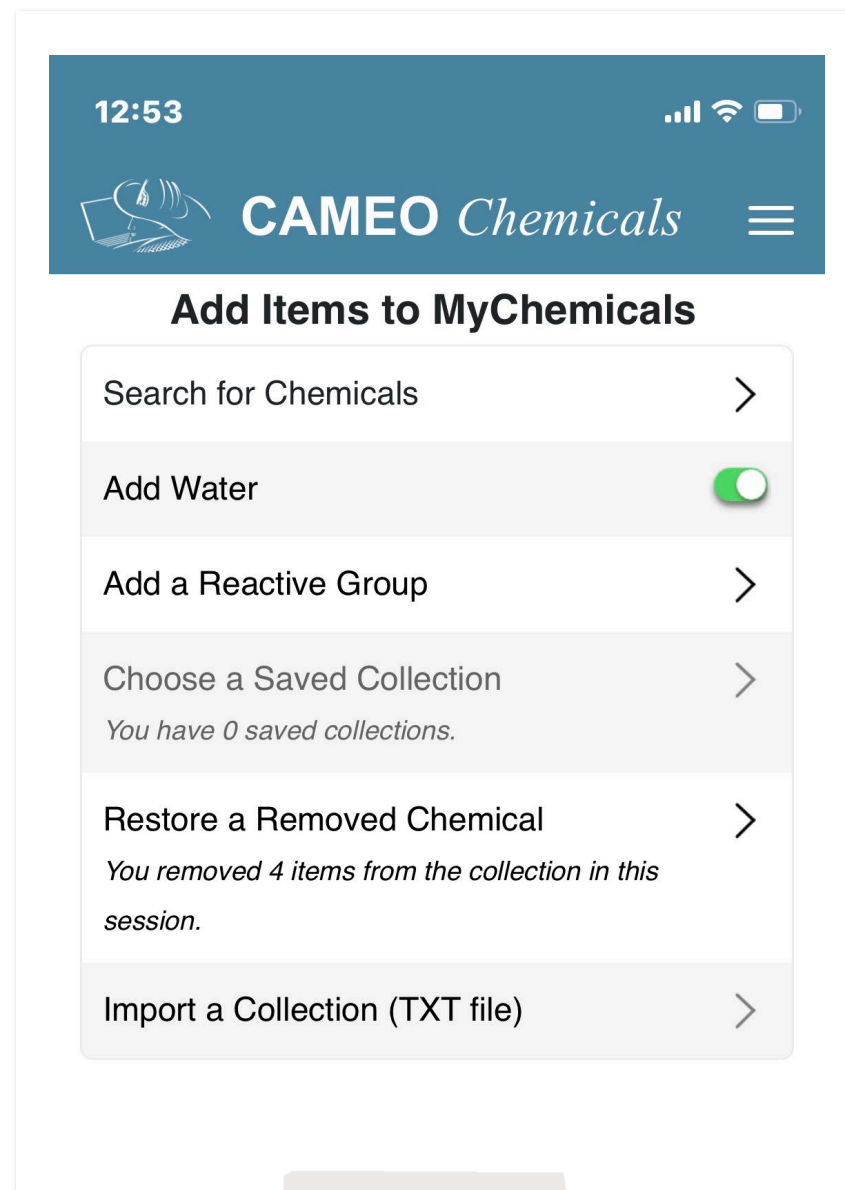
 Search  MyChemicals  Reactivity

Wiser is going away...

- Cameo chemicals demo:
 - Search Function (must click search, not the suggestions)
 - Clicking suggestions puts the suggestion into the search box
 - Chose the data sheet you want.
 - Physical properties lists chem phys info
 - AEGLS also listed under physical properties
 - Add = “my chemicals” and can look at reactivities
 - ERG links are “static” pages
 - Suit breakthrough times in the response recommendations
- Advanced search
 - Chose a field, IE: VP = 180 and search

CAMEO Chemicals

- My chemicals collection
 - Use the + symbol to add water
 - Use + symbol to add at least one other chemical
 - Chemicals can also be added from the datasheet page
 - Chemicals can be deleted by swiping
 - Chemicals can be added by looking at “Restore a removed chemical” under the + symbol



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CAMEO Chemicals

◀ Back to MyChemicals

Reactivity Predictions

	WATER			
CHLORINE	⊘	CHLORINE		
HYDROFLUORIC ACID, SOLUTION	⚠	⊘	HYDROFLUORIC ACID, SOLUTION	
ETHANOL	✓	⊘	✓	

What is this information? ▶

Summary Share PDF Export CSV

Incompatible Pairs: Hazard Predictions

- WATER mixed with CHLORINE
- CHLORINE mixed with HYDROFLUORIC ACID, SOLUTION

Search MyChemicals 4 Reactivity

CAMEO Chemicals

- Reactivity
 - Need at least two chemicals.
 - Water can be added using the toggle switch
 - All chemicals added appear in color coded matrix
 - Only looks at “pairs”
 - Gives potential gases generated but not amounts
 - Data may be “shared”

Audience Input...

- What have you tried?
 - What worked?
 - What didn't?
- Thoughts?
- Questions?
- Comments?

