

Coversheet: “*Chemicals*” Mini-Unit

Objective: Students will understand basic concepts of safety around toxic chemicals.

Opening Activity: Students will discuss a cartoon illustrating the unsafe use of toxic chemicals.

Closing Activity: Students will interview each other about the chemicals they use and how they know they are using them safely.

| Level | Vocabulary / Language Forms | Target Language | Activities |
|-------|--|---|--|
| L1 | Chemicals, Danger, Safe, Unsafe | Respond to simple instructions (“Open the window.”) | Simple safety dialogs Picture recognition |
| L2 | Bleach, Hazards, Poison, Stripper | Give simple safety instructions Describe effects of exposure to toxic chemicals Recognize symptoms of chemical exposure | Safety dialogs Grammar exercises Reading with comprehension questions Translation of symptoms from English to Spanish |
| L3 | Dangerous, Hazardous, Safety Equipment, Toxic, Ventilation | Giving instructions to safely use hazardous chemicals | Writing about chemical hazards and safety |

Teacher Notes

Welcome to the Chemicals Mini-Unit. This unit is designed to teach students the basics about the hazards of chemicals, and how to stay safe while working with chemicals. It can be taught in 4 to 6 hours.

Page 1: Students look at the cartoon and answer the questions. Level 3 students can translate the questions into Spanish; L1 can discuss them in Spanish, L2 and L3 in English. L3 can write their answers. Have L2 and L3 students write their answers on the board and go over them together, making small corrections as necessary.

Page 2: This page gets students thinking about all of the chemicals they use – at work and at home. Students first talk together for a few minutes about the names of the chemicals; Level 2 and 3 students then write them down. Students can use the trade names (“Pine Sol”) or the generic names (“wood polish”). Review the names before going on to the fill-in-the-blank exercise.

Page 3: This page emphasizes the three ways chemicals can hurt you: **How strong they are, How they enter the body, and How long you're exposed to them.** For “How they enter the body,” emphasize that breathing strong chemicals can hurt you most quickly. There's a writing prompt at the bottom for Level 3 students who finish early.

Page 4: This page reviews symptoms from exposure to chemicals; it also covers some basic grammar around “can” and “give” before going reviewing chronic versus acute injuries. For questions #9 and #10, emphasize that the base-form noun follows “can.” (i.e., “can **burn** your skin,” not “burns” or “burned.”)

Page 5: First, review “best” and “worst.” (noting that it's usually “the best,” and “the worst.”) Most people think that using safety equipment is the best way to be safe. *This page teaches that it's actually the worst way.* For the last question, really try to cultivate some examples of removing the hazard. This can be replacing a more dangerous chemical with a less dangerous one, or changing a job to remove a hazard from it. There's a writing prompt at the bottom for Level 3 students who finish early.

Page 6: This page is the assessment for the mini-unit. Students talk through possible answers before writing their answers down. Level 1 students do the first dialog; Level 2 and 3 do numbers 2 and 3. After they finish, students go over their dialogs together and correct any errors. (The teacher should also circulate and make corrections.) Then students practice the dialogs with a partner and perform them for the class.

Introduction – *Chemicals*



1. What is happening in this picture?
2. Does anything like this happen at your workplace?
3. What can you do to be safe?

Grammar – What Do You Use?



What chemicals do you use at work? At home?

| | | |
|---|---|---|
| A | B | C |
| D | E | F |

You use “at” to talk about a place. Please answer these questions with “at.”

1. I use _____ at home.
2. I use _____ at work.
3. I use _____ at _____.
4. I use _____ at _____.

You can use “to” to talk about why you do something. Please answer these questions.

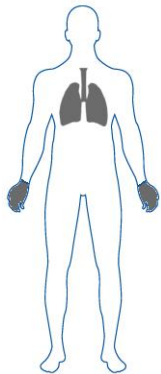
5. I use _____ to wash my clothes.
6. I use _____ to clean the floor.
7. I use _____ to _____.
8. I use _____ to _____.

Reading – Three Ways Chemicals Can Hurt You

How strong is the chemical?

Some chemicals are very strong, like bleach and wax stripper. Strong chemicals can hurt you more than weak chemicals.

1. *What strong chemicals do you work with?*



How does the chemical get into your body?

Chemicals can get into your body in different ways. If you breathe in chemicals, it can hurt you very quickly, and hurt you very much. But chemicals can also get into your body through your skin.

2. *Do you breathe in chemicals? Which ones?*

3. *Do chemicals get into your body through your skin? Which ones?*

How much time do you spend around the chemical?

If you spend more time around chemicals, they can hurt you more. This is true for strong *and* weak chemicals.

4. *How much time do you spend with strong chemicals every week?*



5. *How much time do you spend with weak chemicals every week?*

Have you ever gotten sick from chemicals? What happened? What did you do?