

I. PRELIMINARY INFORMATION:

- A. **CLASS:** Graphic Communications
 B. **TITLE OF UNIT:** Screen Printing
 C. **TITLE OF LESSON:** Safety
 D. **MLO/COMPETENCY FOCUS:** Screen Printing Safety
 E. **DATE & TIME:** —
 F. **WEEK OF INSTRUCTION:** 2nd Qtr 1st week
 G. **INSTRUCTOR:**
 H. **ADDITIONAL INFORMATION:**

II. EXTERNAL ALIGNMENT:

(Which external standards are driving our objectives? State core academic standards? National core academic standards? State or national technical/clinical standards? While we may identify the organizational name and number here, we must KNOW the spirit of the standard, and ensure we are actually teaching and assessing the standard (and not merely listing the standard's number.)

(use this column for course evaluation / improvement suggestions)

(Standard Source)

(Specific Standard Set & Number)

MO Show-Me Stds:

Purpose of safety — productivity, profitability and employability.

- 1) Chemical safety*
- 2) Flash unit and conveyor dryer safety*
- 3) Spray booth safety*

III. STUDENT PERFORMANCE OBJECTIVES:

(Objectives must drive the content, which in turn drives the student assessment. All three must be consistent (verb levels & domains). If this is accomplished, the curriculum is said to possess Internal Alignment.)

(OBJECTIVES → content → assessment = Internal Curriculum Alignment)

Psychomotor:

(what do we want the students to "do"....how/where, what, how well?)

- 1) Use chemicals in screenprint shop according MSDS data sheet. mixing, safety barriers/precautions, storage and disposal.*
- 2) Keep all materials and hands free from flash unit and conveyor dryer. Turn off conveyor heat prior to turning off the conveyor belt allowing proper time to cool down*
- 3) Point sprayer directly into spraybooth, wear safety goggles, apron, and turn off power and water supply when finished creating a safe shop.*

Cognitive:

(what do we want our students to "know"....how/where, what, how well?)

- 1) Know where to locate specific MSDS sheet and how to read understand the safety information about chemicals.*

2) Understand that both flash unit and conveyor dryer generate heat which in can complete a fire triangle.

3) When using the power sprayer point he sprayer into the spraybooth and ware goggles. and an apron to keep emulsion/water overspray away from eyes and skin. Direct spray will harm someones skin

Affective:

(how do we want the students to "feel and appreciate"....how/where, how measured?)

Recognize the importance of shop safety reflects how well we can do our work. Common practice to use saftey barriers such as goggles, apron, and gloves but also understand safety and how it effects job performance, quality (clean substrates). Ones ability to be organized, locate materials and tools.

IV. TEACHING METHODS AND TECHNIQUES:

(Category)	(Specifics)
Discussion	Chemical safety—mixing, storage, barriers, and ventilation
Peer/Group Interaction	Student will demonstrate properly mixing water/diazo/emulsion.
Demonstration	Student will demonstrate proper use of spraybooth, flash unit, conveyor dryer, and power spayer. Screen printing shop, dark room, and Chemical Room —Split the class up into half and discuss proper chemical safety, darkroom safety and dryer safety in the darkroom, by the press/dryers or in the chemical room. I move them around, so they engage into the content.

Other:

Ask students to list what to do incass of an emergency (what if). Discuss chemical handling, storage, and protective gear is needed.

V. RESOURCES REQUIRED:

(Category)	(Specifics)
Computer/Projector	See fire triangle
Video/URL Link:	www.osha.gov/SLTC/etools/printing/screenprinting/screenprinting_index.html#stretchattach

U.S. Department of Labor, Occupational Safety & Health Administration, 200 Constitution Ave., NW, Washington, DC 20210
800-321-OSHA (6742)/TTY: 877-889-5627/www.OSHA.gov

Text Book

Other:

VI. INTRODUCTION:

(GRAB their attention by tying to previous lessons, occupational experiences, "stories," etc...)

In the beginning of the year I teach all graphic shop safety including chemical, flash and conveyor dryers. I have students pair up and make a list of safety hazards that I setup in the room. For example: I may place shirts on top of the conveyor dryer vent, leave the flash dryer over the palette. Their job is to find and list them.

Begin class by doing something unusual, so they will talk and feel comfortable. Laughter is a helpful tool for me. I might begin class wearing gloves, goggles and/or my apron. Anything to break-up the monotony of lecture.

I also share stories about things that have happened in the shop. For example the horrible smell a palette makes when scorched by the flash dryer. See example the scorched palette. What a shirt looks like when it has turned brown when it has been exposed to heat too long.

VII. CONTENT:

(objectives → **CONTENT** → assessment = Internal Curriculum Alignment)

(the "heart" of one's presentation...use an outline if that may keep us from reading to the students. The outline should provide enough information to lead the delivery)

Chemical safety

- mixing safely • protective barriers • properly stored and labeled

Flash dryer and conveyor dryer

- electric cords and power source • hot surface • how to properly cool down dryers

Spraybooth safety

- power sprayer • electrical cords/power reset • water • protective barriers

VIII. SUMMARY:

(summarize major points, as well as tie to future lessons...)

When using chemicals, power sprayer, flash, and conveyor dryers proper use must be

maintained with all jobs. Proper safety barriers prohibits accidents. Being organized, and clean, affects quality (clean substrates) and over-all job performance with future projects.

IX. STUDENT PERFORMANCE ASSESSMENTS:

(objectives → content → **ASSESSMENT** = Internal Curriculum Alignment):

Psychomotor:

(assess our students' "doing" ability as they'll be "assessed" in the workplace...real world...based on Student Objectives)

Students will be evaluated, See hands-on evaluation Safety (A)

Demonstrate correct chemical mixing procedure
Demonstrate correct spraybooth procedure
Demonstrate correct dryer procedure

Cognitive:

(assess our students' "knowing" ability as they'll be "assessed" in the workplace...real world...based on Student Objectives)

Writing complete sentences students will fill out assessment see Safety (B).

Affective:

(assess our students' "feeling/attitudes" as they'll be "assessed" in the workplace...real world...based on Student Objectives)

Students will verbally express chemical, spraybooth and dryer safety.

X. ASSIGNMENTS *(reinforce major lesson components)):*

Group Activities:	Ongoing with all class demonstrations
Sample Problems: (select)	Ongoing with all projects

XI. RELEVANCE TO FUTURE LESSONS:

(tie to future lessons, courses, levels, etc.)

Silkscreen safety is ongoing with all silkscreen projects. It is our responsibility to keep the shop safe with every project.

XII. LESSON/COURSE EVALUATION:

(Which part of this lesson worked? What didn't? How can we improve this lesson, unit, course? Make notes now to initiate the course evaluation/improvement process...)