BIG FLOOR PLANS · COLLEGE & TRADES TRACK · 50 MINUTES

Lab Safety Layout: teacher script

Science-education and lab-technology students tape a teaching lab at full size, walk from every station to the eyewash, check the aisles, and fix the layout before the casework is ordered.

Prep: Tape the lab outline, four benches, the fume hood and the eyewash at the scenario coordinates. Print one check sheet per team.

Min	Step and what to do	Ask	Listen for
0-5	**Hook** "Splash. Eyes closed. Where is the eyewash?"	How would you know you can reach it in time?	Walk it and measure.
5-22	**Walk every station** Walk the aisle route (no cutting through benches) from each station to the eyewash.	Which are over 55 ft?	Bench 3, Fume hood.
22-32	**Aisles** Measure the three aisles against 48 in.	Which fails?	Bench 3 to fume hood.
32-44	**Fix** Place a second eyewash on the east wall and re-walk.	Do all pass?	Yes: every station is within 55 ft.
44-50	**Exit ticket** Individual exit ticket.		

Common misconceptions

- **Learners may think:** If you can see the eyewash, it is close enough. **Address it:** Seeing is not reaching; walk the route.
- **Learners may think:** One eyewash per lab is always enough. **Address it:** Distance decides, not count.

Supports

- Pre-tape a 5-ft grid.
- Multilingual learners: label eyewash, bench, aisle and fume hood with pictures.
- Mobility: the timer role can measure from the plan seated.

References

- **ANSI/ISEA Z358.1**: emergency eyewash reachable within 10 seconds; the scenario uses a 55-ft walking limit as its own planning rule (check the current edition)
- **Perkins V (CTE)**: postsecondary and secondary CTE program context

Scenario sheet

Teaching lab 60 ft (x) x 30 ft (y), feet from the southwest corner. Eyewash at (0, 20). Stations: Bench 1 (12, 5), Bench 2 (12, 25), Bench 3 (44, 5), Bench 4 (40, 25), Fume hood (58, 15). Walk along aisles (x then y, no cutting through benches). Scenario rule: every station within 55 ft of walking of an eyewash (from the 10-second reach in ANSI/ISEA Z358.1); aisles at least 48 in.

Aisle	Measured (in)
Between bench rows	50
Bench 3 to fume hood	40
Door to eyewash	60

LEARNER SHEET · LAB SAFETY LAYOUT

Name _____ Date _____

Station	Walk to eyewash (ft)	Pass / fail	With a 2nd eyewash
Bench 1			
Bench 2			
Bench 3			
Bench 4			
Fume hood			

Aisle	Pass / fail

Exit ticket

1. A station is 30 ft east and 12 ft north of the eyewash along aisles. Walking distance?

2. 42 ft against a 55-ft limit?

3. An aisle measures 40 in and needs 48. Short by?

Answer key

Station	Walk (ft)	Result	With eyewash 2 at (60, 22)
Bench 1	27	passes	27
Bench 2	17	passes	17
Bench 3	59	fails	33
Bench 4	45	passes	23
Fume hood	63	fails	9

Aisle	Result
Between bench rows	passes
Bench 3 to fume hood	fails by 8 in
Door to eyewash	passes

Exit ticket

1. A station is 30 ft east and 12 ft north of the eyewash along aisles. Walking distance?
   Answer: 42 ft.
2. 42 ft against a 55-ft limit?
   Answer: Passes.
3. An aisle measures 40 in and needs 48. Short by?
   Answer: 8 in.

Scoring: 1 point each, plus 1 for a working fix. 3 or more = secure.

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