BIG FLOOR PLANS · COLLEGE & TRADES TRACK · 45 MINUTES

Lay Out the Tile: teacher script

Tile-setting and flooring students lay out 18-in tile in the Teaching House kitchen from the plan, choose where the center lines fall so no edge cut is a sliver, and order the tile.

Prep: Roll out the TP-01 print (or tape the 16 x 11 ft kitchen). Cut 18-in paper squares. Print one layout sheet per team.

Min	Step and what to do	Ask	Listen for
0-5	**Hook** "Same tile, same room. Why does one floor look cheap?"	Where do you look first?	At the cuts along the walls.
5-15	**Center lines** Snap center lines in the 16 x 11 ft kitchen.	Where are they?	96 in and 66 in from the walls.
15-30	**Two options each way** Dry-lay paper tiles from the center: joint on the line, then tile centered on the line.	Edge cuts on the long axis?	Joint on center 6 in; tile on center 15 in.
30-38	**Choose** Pick the option on each axis with cuts of at least 9 in.	Your layout?	Long axis: tile on center (15-in cuts); short axis: joint on center (12-in cuts).
38-45	**Order and exit** Count tiles, add 10% waste, boxes of 6. Then the exit ticket.	Order?	88 tiles, order 97: 17 boxes.

Common misconceptions

- **Learners may think:** Start the first full tile against a wall. **Address it:** That pushes all the cutting to the far wall, often as a sliver.
- **Learners may think:** Area / tile area is the tile count. **Address it:** That gives 78; each edge piece uses a whole tile, so the real count is 88.

Supports

- Give a strip of paper tiles to slide along each axis.
- Multilingual learners: label center line, joint, edge cut and box on the floor.
- Mobility: the recorder computes cuts from a seat; teammates dry-lay.

References

- **Scenario rules**: 18-in tile with the joint included, cuts of at least half a tile, 10% waste and boxes of 6 are scenario values; follow the tile maker's layout and joint guidance
- **Perkins V (CTE)**: postsecondary and secondary CTE program context

Scenario sheet

The Teaching House (TP-01) kitchen, 16 ft x 11 ft between walls, tiled before the cabinets. Scenario: 18-in square tile, layout measured with the grout joint included; no edge cut under half a tile (9 in); each edge piece is cut from a full tile; 10% waste; boxes of 6.

LEARNER SHEET · LAY OUT THE TILE

Name _____ Date _____

Axis	Room (in)	Half (in)	Cut: joint on center	Cut: tile on center	Choice
Long					
Short					

Step	Answer
Tiles across x tiles down	
With waste; boxes	

Exit ticket

1. Half the room is 60 in; 12-in tile, joint on center. Edge cut?

2. Half the room is 66 in; 18-in tile centered. Edge cut?

3. 88 tiles plus 10% waste, boxes of 6?

Answer key

Axis	Room	Half	Joint on center	Tile on center	Choice
Long	192 in	96 in	6 in	15 in	tile on center: 15-in cuts, 11 tiles across
Short	132 in	66 in	12 in	3 in	joint on center: 12-in cuts, 8 tiles across

11 x 8 = 88 tiles; x 1.10 = 96.8, order 97: 17 boxes of 6. (Area alone, 176 sq ft / 2.25, gives only 78.)

Exit ticket

1. Half the room is 60 in; 12-in tile, joint on center. Edge cut?
   Answer: 0 in: full tiles (60 / 12 = 5).
2. Half the room is 66 in; 18-in tile centered. Edge cut?
   Answer: 3 in (66 - 9 = 57; 57 - 54 = 3).
3. 88 tiles plus 10% waste, boxes of 6?
   Answer: 97 tiles: 17 boxes.

Scoring: 1 point each, plus 1 for a layout with no cut under half a tile. 3 or more = secure.

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