

Handout 04.17: Unit 4 Review Game Cards

Design a Room Grab. Print one set per team of four on card stock (or one set for the teacher to read from and a whiteboard per team) and cut. Seven categories, six cards each, 42 cards. Point value on the card: 1 (recall), 2 (apply), 3 (explain or compute). The answer is on the back (or below the line when printed one-sided; fold it under).

Rules: a team picks a category and a point value. The teacher reads the card. Every team writes an answer on its whiteboard in 20 seconds. Every correct board scores the points. The picking team picks the next. Fifteen minutes, then the test.

Category 1: Elements of design

E1 (1 point). Name three of the elements of design. Answer: any three of color, line, shape (form), texture, space, pattern, light.

E2 (1 point). Is texture an element or a principle? Answer: an element.

E3 (2 points). A room has vertical stripes on the wallpaper. Which element is that, and what does it do to the room? Answer: line; vertical lines make the ceiling feel higher.

E4 (2 points). Name one rough texture and one smooth texture you could put in a bedroom. Answer: rough: a woven rug, a knit blanket, brick, burlap; smooth: glass, a painted wall, satin, metal. Any pair.

E5 (3 points). A small bedroom feels crowded. Name two elements you could change and say how each would help. Answer: color (cool, light colors make the room feel bigger); space (less furniture, more open floor); line (vertical lines lift the ceiling; a low bed opens the room); light (more light makes a room feel larger). Any two with a reason.

E6 (3 points). Explain the difference between shape and form, with one example of each in a room. Answer: shape is flat, two-dimensional (a square window, a round mirror); form is three-dimensional (a cube ottoman, a round lamp base).

Category 2: Principles of design

P1 (1 point). Name three principles of design. Answer: any three of balance, proportion (scale), emphasis (focal point), rhythm, unity (harmony), variety.

P2 (1 point). What is a focal point? Answer: the first thing the eye goes to in a room; the center of attention.

P3 (2 points). Two identical nightstands on either side of a bed. Which kind of balance is that? Answer: symmetrical (formal) balance.

P4 (2 points). A full-size bed in an 8 by 9 foot room. Which principle is broken, and why? Answer: proportion (scale); the bed is too big for the room and leaves no path.

P5 (3 points). Describe how you could use rhythm in a bedroom with one color. Answer: repeat the accent color at intervals (pillow, rug, frame, lamp) so the eye moves around the room; repetition of a shape or line works too.

P6 (3 points). A room has a huge poster wall, a bright rug, a patterned bedspread, and a neon lamp. Name the principle that is missing and one change to fix it. Answer: emphasis (one focal point) or unity; pick one focal point and calm the rest, or tie everything to one color scheme.

Category 3: Home safety

S1 (1 point). Name three of the hazard families at home. Answer: any three of burns, cuts, falls, fire, electrical, poisoning, choking, food contamination.

S2 (1 point). Where should smoke alarms be? Answer: on every level of the home and in or near every sleeping area, tested monthly.

S3 (2 points). A loose rug at the top of the stairs. Name the hazard family and the fix. Answer: falls; remove it or secure it with a non-slip pad or tape.

S4 (2 points). Name two things a home fire escape plan needs. Answer: two ways out of every room; a meeting place outside; working smoke alarms; practice.

S5 (3 points). A grandparent with a walker is moving into a bedroom. Name three safety features the room needs. Answer: any three of a 36-inch clear path, no loose rugs, a night light on the path, a bed at the right height with one open side, a lamp reachable from the bed, no cords across the path, a chair with arms.

S6 (3 points). A baby's crib. Name two things about where it goes and one thing about what goes in it. Answer: at least 3 feet from a window, cords, heaters, and shelves that could fall; window coverings cordless; nothing in the crib but the baby and a fitted sheet (safe sleep).

Category 4: Conservation

C1 (1 point). What does “conserve” mean? Answer: to use less of a resource so it lasts; to avoid waste.

C2 (1 point). Name one renewable and one nonrenewable energy source. Answer: renewable: solar, wind, hydro, geothermal; nonrenewable: coal, oil, natural gas.

C3 (2 points). Name three ways to conserve water at home. Answer: any three of shorter showers, a low-flow showerhead, fix drips, full loads only, turn off the tap while brushing, a rain barrel.

C4 (2 points). A 60-watt bulb is replaced by a 9-watt LED. How many watts are saved while it is on? Answer: 51 watts.

C5 (3 points). Two 10-minute showers a day at 2.5 gallons a minute become two 5-minute showers. How many gallons are saved per day? Answer: 50 gallons before (2.5 times 10 times 2), 25 gallons after, so 25 gallons saved per day (175 a week).

C6 (3 points). Name three green choices for furnishing a room and say what each conserves or reduces. Answer: secondhand furniture (reuse, less waste); LED bulbs (energy); low-VOC paint (cleaner air, fewer chemicals); a recycled-fiber rug (waste); placing a desk by the window (daylight, less electricity); a plant (weak, but accepted with a reason).

Category 5: Color

K1 (1 point). Name the three primary colors. Answer: red, yellow, blue.

K2 (1 point). Is blue a warm or a cool color? Answer: cool.

K3 (2 points). Name the color scheme: light blue, medium blue, navy. Answer: monochromatic.

K4 (2 points). Name the color scheme: red and green. Answer: complementary (opposites on the color wheel).

K5 (3 points). A client wants a small bedroom to feel calm and bigger. Which colors, and why? Answer: cool, light colors (blues, greens, soft grays); they recede and feel calm, so the room feels larger.

K6 (3 points). What is a tint and what is a shade? Give an example of each from blue. Answer: a tint is a color plus white (light blue, sky blue); a shade is a color plus a touch of a dark color (navy, made from blue with a touch of brown or a second dark color). Accept “plus black” only if the student also says why we did not use black in the lab: black gel turns everything gray, so in Lesson 4.8 the shade was mixed with a touch of blue or brown instead.

Category 6: Scale and the plan

M1 (1 point). What does “1/4 inch = 1 foot” mean? Answer: every 1/4 inch on the plan is 1 foot in real life.

M2 (1 point). Draw the floor plan symbol for a door. Answer: a gap in the wall with a line for the door and a quarter-circle arc for the swing.

M3 (2 points). At 1/4 inch = 1 foot, a wall drawn 3 inches long is how many feet? Answer: 12 feet.

M4 (2 points). At 1/2 inch = 1 foot, a 14-foot wall is how many inches on the plan? Answer: 7 inches.

M5 (3 points). The traffic flow rules: how wide is a walker or wheelchair path, how wide is any other path, and how big is a wheelchair turning circle? Answer: 36 inches; 30 inches; 60 inches (5 feet) across.

M6 (3 points). A plan has a bed pushed into a corner with both long sides against walls. Who has a problem with that and what is the fix? Answer: anyone who needs to get in from the side, especially a walker or wheelchair user; pull the bed out so one long side is open to the path.

Category 7: Budget and careers

B1 (1 point). What is a need, and what is a want? Answer: a need is something the design fails without; a want is nice if the money and space allow.

B2 (1 point). Which of these is never bought secondhand: a dresser, a mattress, a lamp? Answer: a mattress (hygiene, bed bugs, no warranty; a crib mattress also for safety).

B3 (2 points). Subtotal \$200. Tax 8.625 percent. What is the tax? Answer: \$17.25.

B4 (2 points). Name one career from this unit that starts with an apprenticeship and one that needs a college degree. Answer: apprenticeship: electrician, plumber, HVAC technician, furniture maker, many contractors; degree: architect, landscape architect, interior designer (mostly), sustainability consultant.

B5 (3 points). Subtotal \$312. Tax 8.625 percent. Budget \$400. Total, and under or over by how much? Answer: tax \$26.91; total \$338.91; under by \$61.09.

B6 (3 points). Who checks the electrician's work, and who do they work for? Answer: the home inspector (or the town's building inspector); they work for the buyer or the town, not the contractor.

Scoreboard

Category	Team 1	Team 2	Team 3	Team 4	Team 5	Team 6	Class miss count (reteach at 2)
1 Element s							
2 Principle s							
3 Safety							
4 Conserv ation							
5 Color							
6 Scale and plan							
7 Budget and careers							
Total							

Teacher key

The answers are on the cards. Notes:

- Read the whole card before the 20 seconds start.
- A category two or more teams miss twice gets a two-minute reteach before the next card. The categories most classes miss: 6 (scale, done backward) and 7 (tax added wrong). Both are on the test.
- Category 3, card S1: the Unit 4 hazard families (Lesson 4.2) may be named differently from the Unit 1 kitchen families; accept either list.
- For a class of more than six teams, add columns to the scoreboard on the board.
- Keep the cards; they are the retake review.