

Lesson 4.17: Unit 4 Review and Test

Unit: Unit 4, Spaces We Live In (Environmental Design and Management) **Topic:** 4.4 Careers (unit close) **Grade:** 6 to 8 (written at grade 7; see Differentiation for the grade 6 support and grade 8 stretch) **Days:** 1 class period of 40 minutes (day 115, the last day of Unit 4) **Room:** classroom or FACS lab; the models still on the shelf

Standards

- NYS module line: NYS EDM 1. Healthy, Safe, Sustainable Living Spaces b) Identify common safety hazards found in living spaces and describe ways to minimize risks to individuals, families, and household members (state typo; two phrases fused in the PDF); d) Investigate ways to conserve natural resources in family, school, work, and community settings
- NYS module line: NYS EDM 2. Environment and Interior Design c) Incorporate the elements and principles of design into a design plan
- NYS module line: NYS EDM 3. Consumer Resources and Finance a) Construct a budget for implementation of a floor plan design
- CTE theme line: CTE HSW 3. Personal Safety c) Summarize common causes of intentional and unintentional injury and describe associated prevention strategies
- CTE theme line: CTE SUS 3. Energy Conservation e) List and describe methods for energy conservation in the home, workplace, and community
- NYS FACS Learning Standard 2 (Intermediate), Key Idea: Students will know the basic principles of home and community safety. They can demonstrate the skills necessary to maintain their homes and workplaces in a safe and comfortable condition. They can provide a safe and nurturing environment for themselves and others.; Performance Indicator: Students know the basics of managing a safe and healthy home.
- CDOS Standard 3a Universal Foundation Skills: Basic Skills
- National FCS 3.0: 11.2.1 Judge how the elements and principles of design are used in homes and in commercial and residential interiors.
- National FCS 3.0: 11.6.1 Work out what money and resources an interior improvement needs.

The test also checks EDM 4. a) (careers), FCL 4. c) (the budget item), and PSI 2. a) h. (the scenario). The full item-by-item map is in Assessment 04.3 - Unit 4 Test.md.

Enduring understanding and essential question

Big idea: Everything in this unit was one question asked five ways: what does this person need from this space, and how do you give it to them safely, within the money, and without wasting what the planet has. **Essential question:** What do you know now about a room that you did not know on day 91?

Objectives

By the end of this lesson, students will be able to:

1. (Low) In a review game, recall the elements and principles of design, the six hazard families at home, three conservation methods, the scale conversion, and the tax math with at least 80 percent accuracy as a team.
2. (Mid) On the Unit 4 Test, apply the scale conversion, the energy math, and the budget math to numbers they have not seen.
3. (High) On the Unit 4 Test, evaluate a client scenario and justify a design decision in a short written response.

Vocabulary

Tier 2 (general academic): review, recall, apply, evaluate Tier 3 (FACS): every Tier 3 word from Lessons 4.1 to 4.16 is fair game; the review game cards use them. See Vocabulary 04.md for Turkish, Portuguese, and Spanish.

Materials and setup

- Handout 04.17 - Unit 4 Review Game Cards.md: 42 question cards in seven categories, one set per team of four, plus the scoreboard
- Assessment 04.3 - Unit 4 Test.md, one per student, printed; calculators for the three math items
- Whiteboards or scrap paper and markers, one per team, for the game
- The Unit 4 vocabulary list (Vocabulary 04.md) for the ELL word bank during the test
- Slides: Slides 04.17 - Unit 4 Review and Test
- A visible timer
- Setup notes: cut the card sets the day before. Teams of four, mixed by the exit lines from Lesson 4.16 so each team has a student who was strong in the plan, the budget, and the model. Separate desks for the test after minute 18.

Pre-assessment

The review game is the pre-assessment for the test. Keep the scoreboard; a category the whole class misses gets a two-minute reteach before the test starts, and that two minutes comes out of the game, not the test.

Do now and hook (Time: 3 min)

On the board: “Write the scale conversion in one line: at $1/4$ inch = 1 foot, a wall that is 3 inches on the plan is ___ feet. At $1/2$ inch = 1 foot, 36 inches of path is ___ inches on the plan.” Two minutes. Answers on the board (12 feet; 1.5 inches). Hook: “Fifteen minutes of game. Twenty minutes of test. The game is the test with your team; the test is the game by yourself.”

Procedure

Step	Teacher will	Students will	Time
1. Review game: Design a Room Grab	Slides 2 to 4. Rules: seven categories (elements, principles, safety, conservation, color, scale and plan, budget and careers), six cards each, worth 1 to 3 points by difficulty. A team picks a category and a point value; the teacher reads the card; every team writes an answer on the whiteboard in 20 seconds; every correct board scores. The picking team picks the next. Run it fast. Tally on the scoreboard. Reteach any category that two or more teams miss twice, in under two minutes, before the next card.	Answer every card on the team whiteboard. Pick categories in turn.	15 min
2. Transition	Slide 5. Boards away, desks apart, test out, calculators out. State the rules: 20 minutes, calculator on the three math items only, the vocabulary list word bank for any student who uses one, write what you think and why if unsure.	Move, clear, set up.	2 min
3. Unit 4 Test, with	Slide 6 (the timer).	Take the test. In the	20 min

the closure inside its last two minutes	Give the test. Circulate without helping. Read an item aloud to any student whose plan says so. At 10 minutes, say “halfway; the scenario and the written response are at the end, leave five minutes.” At 18 minutes, say “two minutes; if you are done, the exit line on the back.”	last two minutes, or when finished, write the exit line on the back.	
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Closure (inside the last 2 minutes of Step 3): collect the tests at the bell. Exit line on the back of the test: “The item I was surest about was number . ***The one I want to go over is number .***” A student who needs the full 20 minutes for items skips the exit line; no penalty.

Questions to ask

Monitor understanding (during the game):

- Which is an element and which is a principle: color, balance, texture, rhythm?
- A 36-inch path at $1/2$ inch = 1 foot is how many squares on quarter-inch graph paper?
- A \$250 subtotal at 8.625 percent tax is what total?

Deepen learning (after the tests are in, if there is a minute, or in Unit 5’s first do now):

- Which model on the shelf would you change now that you have seen the whole unit’s questions in one place?
- What is the one thing you would tell a family that is about to move into a smaller home?

Check for understanding

The scoreboard by category during the game. A category at under 50 percent across teams gets the two-minute reteach. The test is the summative check.

Closure (Time: 2 min, inside the test’s last two minutes)

Written above under the procedure. Do now 3, game 15, transition 2, test 20 = 40.

Differentiation and supports

- ELL: the review game cards have a picture cue on the front for the safety, conservation, and color categories; the test allows the Unit 4 vocabulary list with translations as a

word bank; the scenario item is read aloud to the class once; the short written response may be written in the home language and scored on content (arrange a translation with the ELL teacher) [*Sal: check the school's testing accommodation rule*].

- IEP and 504 (general): extended time on the test into the first ten minutes of Unit 5 Lesson 5.1 or a study hall, per the plan; items read aloud; a reduced-choice version of the matching items (three choices instead of five); a calculator on any item; a separate setting if the plan says so.
- Grade 6 support: the test's grade 6 version drops item 20 (the second written response line) and gives the tax as a dollar amount on the budget item so the student adds instead of multiplying.
- Grade 8 stretch: item 20's second prompt (what would you cut from the budget first, and why) is required; a stretch item on percent of the budget is offered for two bonus points.
- UDL checkpoint used: multiple means of engagement (a team game before the individual test) and multiple means of action and expression (matching, short answer, math with a calculator, and a written response on the same test).
- No-kitchen or no-machine alternative: not a lab; no alternative needed.

Assessment

Objective	Standards met	Learning task	Assessment (formative or summative; tool)
1. Recall the unit's core facts as a team	EDM 1. b), 1. d), 2. c); HSW 3. c); SUS 3. e); National FCS 11.2.1	Review game, Step 1	Formative; scoreboard by category
2. Apply scale, energy, and budget math to new numbers	EDM 3. a); CDOS 3a Basic Skills; National FCS 11.6.1	Unit 4 Test items 8, 14, 15, 16	Summative; Assessment 04.3 - Unit 4 Test.md, key with points
3. Evaluate a client scenario and justify a decision	EDM 2. c); Std 2 PI B	Unit 4 Test items 19 and 20	Summative; the test's rubric line for the written response

The Unit 4 Test counts in the topic assessments category (25 percent). One retake after a review, best score counts, per the grading plan.

Homework

None.

Connections

Math: the scale and percent items are the same skills the math teacher tests; a copy of the test's three math items to the math teacher shows the transfer. Unit 5 opens with fibers and care; the models come off the shelf on day 116 and go home with the rubric.

Sources

- NYS Middle Level CTE FACS Content Module 04, Environmental Design and Management (nycotecenter.org, June 2018), lines 1. b), 1. d), 2. c), 3. a), 4. a). Copy in 02 Standards/NYS Module PDFs/.
- NYS Middle Level CTE Theme Modules: Health, Safety, and Wellness 3. c); Sustainability 3. e); Financial and Consumer Literacy 4. c); Problem Solving and Innovation 2. a) h. Same folder.
- NYS Learning Standards for Health, Physical Education, and Family and Consumer Sciences (1996), Standard 2, Intermediate. Wording per 02 Standards/STANDARDS SOURCES - web research.md, section 2. *[Sal: confirm against the NYSED PDF.]*
- National Standards for Family and Consumer Sciences Education 3.0 (LEAD FCS Education, 2018), competencies 11.2.1 and 11.6.1, per 02 Standards/STANDARDS SOURCES - web research.md, section 4.11.
- 03 Course Design/03 Grading Plan.md (retake rule).

Teacher notes

- If the game runs long, stop it at minute 18 no matter what. The test needs its twenty minutes.
- Common mistake in the game: a team writes the answer before the card is finished. Read the whole card, then start the 20 seconds.
- Common mistake on the test: the scale conversion done backward (inches to feet when the item asks feet to inches). The do now is there to fix that before the test.
- The scenario on the test uses a new client (not one of the six cards) so a student cannot answer from memory of their own project.
- *[Sal: if a class had a bad day on the model or the pitch, the review game is where you say what the models got right before anyone sits down for the test. Ten seconds per model, no names.]*
- Models go home on day 116 with the rubric. Photograph them first (no names, no faces).