

*Learning to LEED: Day 2
Materials & Resources Quiz*

1. Number of Prerequisites in the Materials & Resources category: _____
Number of Credits in the Materials & Resources category: _____
Number of Points in the Materials & Resources category: _____

2. MRc1, Building Reuse, uses what metric for its calculations? _____
MRc2, Construction Waste Management, uses this metric: _____
MRc3-7 (Materials Reuse, Recycled Content, Regional Materials, Rapidly Renewable Materials, Certified Wood) use this metric: _____

3. A project team is converting a Victorian-style home into an upscale boutique and seeking LEED-NC status as a major renovation. They disassemble a brick fireplace that is no longer desired by the owner, turning the mantle, which is old-growth wood, into an elegant display table, and using the bricks to create a permeable walkway on-site. To which credit would these materials apply? (Choose 1.)
 - a. MRc1, Building Reuse
 - b. MRc3, Materials Reuse
 - c. MRc4, Recycled Content
 - d. MRc5, Regional Materials

4. How does LEED-NC v. 2.2 define Regional Materials for the purposes of MRc5? (Choose 1.)
 - a. All extraction, harvesting, or recovering of materials, and manufacturing of final products, must occur within 500 miles of the site
 - b. All extraction and harvesting of materials or products must occur within 400 miles of the site
 - c. All recovering of materials and manufacturing of final products must occur within 250 miles of the site
 - d. All extraction, harvesting, or recovering of materials, and manufacturing of final products, must occur within 300 miles of the site

5. Which of the following may be examples of rapidly renewable materials, as defined by MRc6? (Choose 3.)
 - a. Heart pine
 - b. Bamboo
 - c. Wool
 - d. Composite wood panels
 - e. Sawdust
 - f. Linoleum

6. Wood products that are only used temporarily, such as scaffolding, may (T / F) not be counted for the purposes of MRc7, Certified Wood.
- Furniture may contribute to MRc3-7 provided it is used consistently (T / F) for all credits.
7. For MRc1, Building Reuse, which of the following aspects of a building project should not be included in the LEED calculations for submission? (Choose 3.)
- Small additions to the existing building
 - Remediated hazardous materials
 - Interior floor coverings
 - Reusable furniture pieces
 - Roof decking
 - Doors
8. Which of the following information should be included as part of the LEED-Online submittals for MRc2, Construction Waste Management? (Choose 3.)
- Savings from diverted/recycled waste
 - Construction waste calculation tables
 - Average area landfill fee
 - Construction Waste Management Plan
 - Volume of hazardous materials
 - Hauler or location of receiving agent
9. A green-built fire station is being constructed out of a 1920s-era police station. The new building reuses 98% of the exterior structure of the old building and 40% of interior elements. It also intends to collect, store, and recycle glass, plastics, and metals. In addition, all wood purchased for the project will be FSC-certified, and the project team has made a large-scale effort to incorporate non-structural interior elements of the project, such as doors, that were unfit for use under the same circumstances, into decorative aspects such as trim. For which LEED points would the project be eligible? (Choose 1.)
- MRc1.1, MRc3, MRc7
 - MRc1.1, MRc1.2, MRc3, MRc7
 - MRc1.1, MRc1.2, MRc1.3, MRc3, MRc7
 - MRc1.3, MRc3, MRc7
 - MRc1.1, MRc1.2, MRc7
 - The project is not eligible for LEED certification
10. Which of the following Materials & Resources credits provide the opportunity for Exemplary Performance credits in the Innovation & Design Process category? (Choose 6.)
- MRc1, Building Reuse
 - MRc2, Construction Waste Management
 - MRc3, Materials Reuse
 - MRc4, Recycled Content
 - MRc5, Regional Materials
 - MRc6, Rapidly Renewable Materials
 - MRc7, Certified Wood

11. Which of the following materials is post- or pre-consumer waste that is eligible to be counted as recycled content under MRc4? (Choose 3.)
- Newspaper overruns
 - Steel scrap
 - Sawdust
 - Reground plastic polymers
 - C&D debris
12. What is the default Total Materials Cost, expressed as a percentage of the total construction cost, that LEED-NC allows in the Materials & Resources category if the actual materials cost is not available?
- _____
- Approximately how much of the total solid waste stream in the U.S. is composed of C&D waste, according to the U.S. Green Building Council?
- _____
13. Which of the following standards does MRc4, Recycled Content, reference? (Choose 1.)
- Forest Stewardship Council's Principles and Criteria
 - Center for Resource Solutions' Green-e Product Certification Requirements
 - Green Seal Standard GC-03
 - ISO 14021 – 1999 – Environmental Labels and Declarations
14. Which of the following pieces of information are needed to complete the regional materials calculation table for submittal under MRc5, Regional Materials? (Choose 4.)
- Product cost for each tracked material
 - Percentage of product by weight that meets extraction and manufacture criteria
 - Percentage of product by cost that meets extraction and manufacture criteria
 - Distance between project site and site of material origin
 - Distance between project site and site of product manufacturing
 - Distance between site of material origin and site of product manufacturing
15. A construction project that attains 6% rapidly renewable materials, 30% certified wood, and 40% recycled content could potentially be eligible for which of the following points? (Choose 1.)
- MRc4.1, MRc6, MRc7
 - MRc4.1, MRc4.2, MRc6, IDc1 (2)
 - MRc4.1, MRc4.2, MRc7, IDc1 (1)
 - MRc4.2, MRc6, MRc7, IDc1 (1)

16. Which of the following prerequisites or credits in the Materials & Resources category is eligible for Design Submittal under LEED-NC v. 2.2? (Choose 1.)

- a. MRp1, Storage & Collection of Recyclables
- b. MRc1, Building Reuse
- c. MRc2, Construction Waste Management
- d. MRc3, Resource Reuse

17. If a construction project incorporates an existing building but is not able to preserve enough of it to attain MRc1, Building Reuse, to which credit may they apply the reused elements of the previous building? (Choose 1.)

- a. MRc2, Construction Waste Management
- b. MRc3, Resource Reuse
- c. MRc4, Recycled Content
- d. MRc5, Regional Materials

18. In order to achieve MRc1.3 for reusing interior non-structural elements, a project must first achieve MRc1.1 and 1.2 for reusing the existing walls, floor, and roof. (T / F)

Two (2) points are available within the Materials & Resources category (T / F) for using 5% or more of rapidly renewable resources, with an additional point available for Exemplary Performance of 7.5% or higher.

19. According to MRp1, Storage & Collection of Recyclables, a recycling plan should include, at minimum, plans to store, collect, and recycle which of the following materials? (Choose 5.)

- a. Paper
- b. Corrugated cardboard
- c. Magazines
- d. Glass
- e. Hazardous materials
- f. Plastics
- g. Chemicals
- h. Metals

20. A project team that would like to achieve MRc5, Regional Materials, is considering two different cabinetry assemblies that could potential apply to that credit, both of which are constructed from wheatboard. The materials for Cabinet A were extracted just 35 miles from the project site, and it was assembled 510 miles from the project site. Cabinet B is composed of materials extracted 400 miles away and assembled 300 miles away from the project site in the opposite direction, although its hinges were shipped from overseas. Which cabinet would be preferable in applying for the Regional Materials credit, A or B?

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Answers

1. 1; 7; 13
2. area; weight/volume; cost (qualifying materials as a percentage of overall materials)
3. b
4. a
5. b, c, f
6. F; T
7. a, b, d
8. b, d, f
9. f
10. b, c, d, e, f, g
11. a, c, e
12. 45%; 40%
13. d
14. a, b, d, e
15. b
16. a
17. a
18. F; F
19. a, b, d, f, h
20. B