

## Mary Idema Pew Green Building (LEED) Scavenger Hunt

**Instructions:** Welcome to the Mary Idema Pew Green Building (LEED) Scavenger Hunt. Throughout the library you will find Scavenger Hunt QR codes. Scan a QR code to watch the video, then answer the question below.

### Green Building (LEED) Attribute 01: Introduction

*1st floor, Main entrance, Mary Idema painting*

1. What is (are) your name(s)? \_\_\_\_\_
2. What is LEED certification, and how many levels of LEED certification are there?  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
3. How did GVSU determine which energy efficiency measures to include in construction of the library?  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### Green Building (LEED) Attribute 02: Green Spaces

*1st floor, Main entrance, outside tables*

4. What are three functions of green spaces in terms of sustainability? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
5. What are the physical and mental health benefits of green spaces? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
6. To meet LEED certification, how much green space was included in the design of the library? \_\_\_\_\_  
\_\_\_\_\_

### Green Building (LEED) Attribute 03: Access to Public Transportation

*1st floor, Main entrance, outside tables*

7. What is the total contribution of transportation to global greenhouse gas emissions? \_\_\_\_\_
8. What is the relationship between public transportation and LEED certification? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
9. What are the co-benefits of public transportation beyond LEED certification? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Green Building (LEED) Attribute 04: Double Door Airlock**

*1st floor, Main entrance, airlock*

10. What are the sustainability features of a double door airlock? \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

**Green Building (LEED) Attribute 05: Mechanical Systems**

*1st floor, Plexiglass display*

11. Name three library mechanical systems that are regulated by sensors and automated systems.
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
12. What are the sustainability functions provided by the library's automated mechanical systems?
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

**Green Building (LEED) Attribute 06: Open Layout and Furniture Selection**

*1st floor, Room 131*

13. Throughout the library there are 29 different types of indoor seating. What is the purpose of this diversity in furniture?
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
14. What are the sustainability functions of the library's open layout and diverse furniture selection?
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

**Green Building (LEED) Attribute 07: Book Retrieval Systems**

*1st floor, Checkout computer station by main exit*

15. Why do the atrium and first floor levels of the library hold so few books? \_\_\_\_\_
- \_\_\_\_\_
16. What is the total capacity of Mary Idema Pew library's ASRS? \_\_\_\_\_
17. How many books does the ASRS currently hold? \_\_\_\_\_
18. How many books are held within the library stacks? \_\_\_\_\_
19. What are the sustainability functions of the ASRS? \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

**Green Building (LEED) Attribute 08: Daylight Harvesting and Occupancy Sensor Lighting**  
***3<sup>rd</sup> floor, Lightwell (reading garden)***

20. What is daylight harvesting? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
21. What is a lightwell? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
22. What are the sustainability functions of a lightwell? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
23. What is solar shading? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
24. What are the sustainability functions of solar shading? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
25. How much of the library is lit by natural light during daylight hours? \_\_\_\_\_
26. How much more energy efficient is the Mary Idema Pew library in comparison to a conventional building? \_\_\_\_\_  
\_\_\_\_\_

**Green Building (LEED) Attribute 09: Energy Recovery - Water Stream**  
***4<sup>th</sup> floor, Computer zone bathrooms***

27. How much of the US's water resources go to commercial buildings? \_\_\_\_\_
28. What is water used for in a typical commercial building? \_\_\_\_\_
29. What percentage of greenhouse gas emissions can be contributed to energy use related to water? \_\_\_\_\_
30. How does the design of the library's stormwater system contribute to the library's sustainability? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
31. How does the library's water use compare to a conventional building? \_\_\_\_\_

**Green Building (LEED) Attribute 10: Green Roof and Cool Roof**  
***4<sup>th</sup> floor, Green roof***

32. What is the heat island effect? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

33. Describe three major issues caused by the heat island effect. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

34. What are the primary differences between a green roof, a cool roof, and a conventional roof? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

35. What are the sustainability features of the library's green roof? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

36. What are the sustainability features of the library's cool roof? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

37. How much cooler is the library's roof in comparison to a conventional building? \_\_\_\_\_

**Green Building (LEED) Attribute 11: Energy Recovery - Air Stream**  
*Atrium floor, DeWitt Exhibition Space*

38. What are the current and anticipated relationships between air cooling systems and global climate change? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

39. What are the sustainability features of the library's HVAC (heating, ventilation, and air conditioning) system? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Green Building (LEED) Attribute 12: Building Materials**  
*Atrium floor, Room 030*

40. How do the library's building materials meet and exceed the LEED requirements? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

41. How did the library's builder address sustainability during the construction process? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

42. How do the library's building materials address noise and air pollution? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Green Building (LEED) Attribute 13: Art in Green Buildings**

*Atrium floor, Roman Corinthian Capital art piece*

43. What is the relationship between art and green building? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

44. What are three benefits of art in buildings beyond sustainability? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Green Building (LEED) Attribute 14: Critiques of LEED, LEED 5.0, and Closing**

*Exit airlock between the Atrium and 1st floors*

45. How has GVSU's energy footprint changed over the last 20 years? \_\_\_\_\_  
\_\_\_\_\_

46. What are three major critiques of LEED green building certification? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

47. How do changes to the LEED certification process occur? \_\_\_\_\_  
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\_\_\_\_\_

48. What are three ways in which LEED 5.0 will change to address critiques? \_\_\_\_\_  
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