TOTAL ____/ 50 Points

Name: _____

Student STEM Project: Design a Sustainable Building   **PART 2**
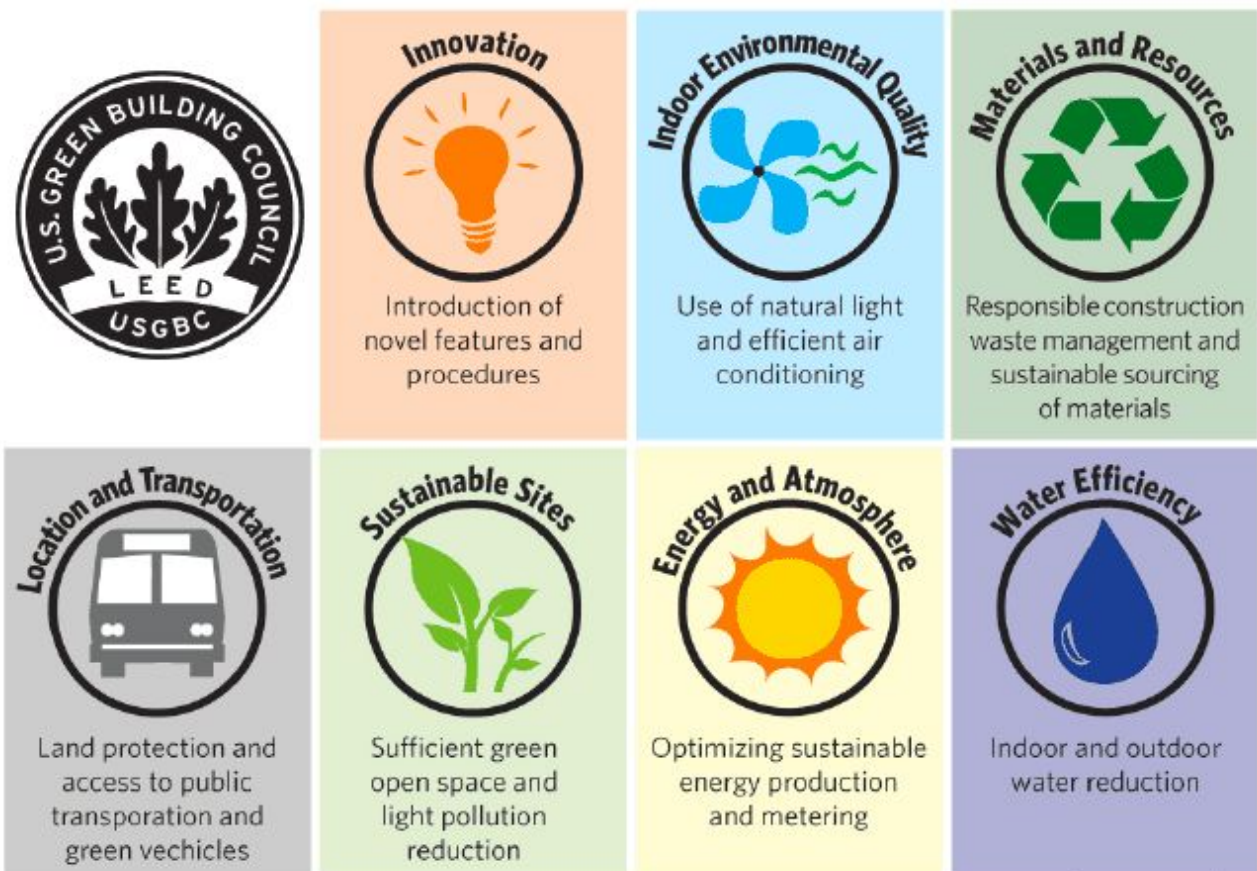
Design Name: _____

Location: _____

LEED Certification Goal: _____

LEED CERTIFICATION REQUIREMENTS

In order to achieve LEED certification, projects must earn points in these categories:

U.S. GREEN BUILDING COUNCIL
L E E D
USGBC

Innovation
Introduction of novel features and procedures

Indoor Environmental Quality
Use of natural light and efficient air conditioning

Materials and Resources
Responsible construction waste management and sustainable sourcing of materials

Location and Transportation
Land protection and access to public transporation and green vechicles

Sustainable Sites
Sufficient green open space and light pollution reduction

Energy and Atmosphere
Optimizing sustainable energy production and metering

Water Efficiency
Indoor and outdoor water reduction

Source: www.usgbc.org

____/ 10 Points   +   _____/10 Points In Class Participation

Peer Critique: _____

(Name of Students Doing Critique)

Identify the Renewable Energy Sources Used in the Design:
- ❏ Wind
- ❏ Hydro
- ❏ Geothermal
- ❏ Tidal
- ❏ Wave
- ❏ Solar
- ❏ Biomass

80+ Points   **60 - 79** Points   **50 - 59** Points   **40 - 49** Points

*Use the **LEED Certification Checklist** to Determine the Project's Score*

LEED Certification Score: _____   Level: _____

Did the design hit their LEED Certification goal?   Yes | No   (Circle One)

Which LEED category did they score the most points in?

_____

Which LEED category did they score the least points in?

_____

____/ 10 Points

Peer Critique Continued:

Circle the Sustainable or Energy Efficient features in their design.

Landscape	Exterior Design	Interior Design	Infrastructure
Garden/ Biodome	Energy Efficient Windows	LED Lighting	Eco-Friendly Insulation
Weathering via Shade Trees	Passive Solar via Skylights/ Effective Use of Windows	Recycled/ Upcycled Furniture or Flooring	Copper Drain Water Heat Recovery Pipe
Native Plants	Orientation	Skylights	Gray Water
Bio Filters	UV Reflective Paint	CO2 Monitors	Sealed Ventilation
Multi-Use Water Feature	Storm Water Collection/ Gutters	Electric Car Charging Station	Air Pump for Water Heater
Aquaponics	Solar Panels	Biofuel Fireplace	Rain Water Storage
Green Building	Green Building	Recycling Bins	Air Purification System
Solar Parking Structure	Repurposed Materials	Energy Efficient Appliances	Solar or other Alternative Energy
Composting	Wind Turbines	Low Residue Paints	Depth of Insulation
Fruit Trees	Hydropower	Concrete Floors	Compost Septic Tank

Suggest at least 2 additional features that could enhance their design without major revision.

_____

_____

_____

____/ 10 Points

Self- Reflection

How Energy Efficient is Your Design?

What additional design elements can you add to make your building even more sustainable or energy efficient? Explain.

_____

_____

_____

_____

_____

_____

_____

_____

____/ 10 Points