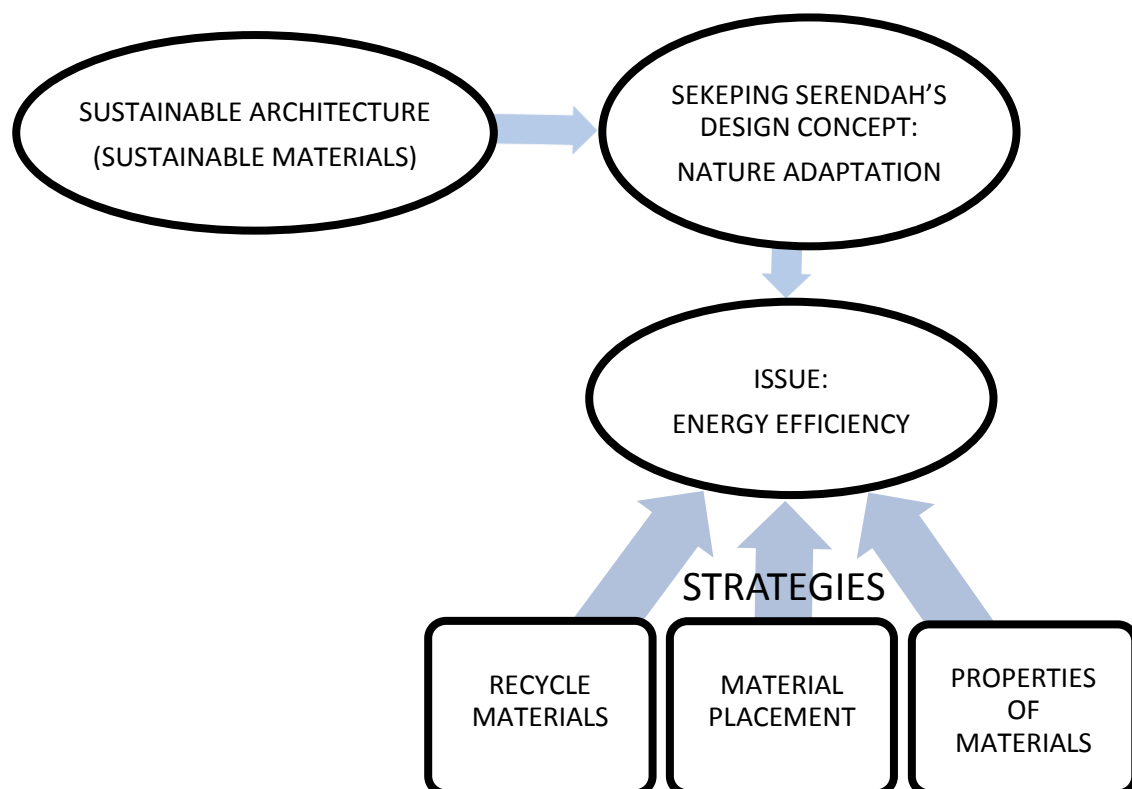


Prepare a two-page type-written proposal, including a concept mapping, a summary of the topic and/or issue to be explored, some of the questions you hope to address, along with a title, and an annotated bibliography of sources.

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**Tutor:** Ms. Nurul Alia Ahamad

## **The Strategies in Using the Sustainable Materials to Achieve Energy Efficiency in the Building and How They Can Adapt To Sekeping Serendah.**



### **Research Question(s):**

1. How the sustainable materials help Sekeping Serendah to adapt with the site?
2. How does the placement of materials contribute towards the energy efficiency of Sekeping Serendah?
3. How to achieve thermal comfort using sustainable materials within Sekeping Serendah?
4. How energy efficiency can be achieve using the sustainable materials?
5. What are the problems can be occurred if the wrong materials are been used?

### **Summary of the topic (300 words):**

Sustainable architecture is architecture that mainly focus to minimize the negative environmental impact of the building by efficiency by considering the use of materials, energy and development space. A building can achieve its sustainability without sacrifice the nature environment, human comfort and health issue. The concept of good architecture have to be applied by considering the environment sensitivity in the design. In sustainable architecture, there are several strategies that can be applied and sustainable building materials is one of them.

Sekeping Serendah is a beautiful retreat house that is located far from the busy city of Kuala Lumpur. It is located in the tropical rainforest which make it close to the nature. The site, which is surrounded by natural environment will promotes the calmness for the users. In order to adapt with the nature, the sustainable materials had been used to the building. Aesthetically, these selected materials make Sekeping Serendah blend with the surrounding. However, the energy efficiency become the issue of this building in order to maintain the architect's philosophy which is to treat the land gently without the need to destroy too much. Thus, this paper will focus on the strategies of using the sustainable materials to achieve energy efficiency to Sekeping Serendah. The strategies such as using recycle material, material placement and properties of materials will be discussed in this paper. A deeper analysis will capture about how the sustainable materials can adapt to the site.

### **Annotated Bibliography**

Roaf, S. (2001). *Ecohouse: A Design Guide*. Oxford: Architectural Press.

- This book highlighted the guidelines to build an ecohouse by considering several factors such as environmental impact of building materials, building envelope, ventilation, passive solar design and water usage.

Williams, D.E. (2007). *Sustainable Design: Ecology, Architecture and Planning*. New Jersey: John Wiley & Sons.

- This book explained on how ecological systems provide sustainable flow and storages of materials and energies from the place in order to achieve the sustainable design. It also explained the relationship between green design and sustainable design.

Williamson, T., Radford, A., & Bennetts, H. (2003). *Understanding Sustainable Architecture*. London: Spon Press.

- This book discussed of commonly ignored assumptions behind the search for a more environmentally sustainable approach to development.

