Using Sustainable Construction Materials in Landscape Projects

Part 1: Dialogue

Sophia (Landscape Architect): We're finalizing material choices for the park's pathways. I'd like to use **permeable concrete** instead of traditional pavement.

Liam (Colleague): That's a good choice. It helps with stormwater management by allowing water to seep through instead of creating runoff.

Sophia: Exactly. Another option is **locally sourced stone** for retaining walls. It reduces transportation emissions and supports regional suppliers.

Liam: That makes sense. Have you considered using **recycled composite decking** for the seating areas? It's durable and made from repurposed plastics and wood fibers.

Sophia: I like that idea. We could also incorporate **reclaimed wood** for benches and pergolas to minimize deforestation.

Liam: That would give the space a unique character while keeping it environmentally friendly. What about **carbon-neutral materials**?

Sophia: We could use them for paving and decorative elements. These materials are produced with minimal environmental impact.

Liam: Sounds great. Let's compile a list of these materials and present them to the client.

Sophia: Agreed! Sustainable choices will enhance the park's design while promoting eco-friendly practices.

Liam: Absolutely. I think our approach will set a great example for future projects.

Part 2: Comprehension Questions

1. Why does Sophia prefer **permeable concrete** for the pathways?
   (A) It is cheaper than other materials
   (B) It prevents weeds from growing
   (C) It makes the surface non-slip
   (D) It helps with stormwater management
2. What is the advantage of **locally sourced stone**?
   (A) It prevents soil erosion
   (B) It reduces transportation emissions
   (C) It absorbs heat more efficiently
   (D) It is easier to shape than other materials
3. How does **recycled composite decking** benefit the project?
   (A) It increases construction speed
   (B) It adds a natural wood scent to the space
   (C) It is made from repurposed materials
   (D) It requires less structural support than other materials
4. What is a reason for using **reclaimed wood** in landscape projects?
   (A) It repels insects naturally
   (B) It is more waterproof than fresh wood
   (C) It requires no maintenance
   (D) It minimizes deforestation

Part 3: Vocabulary with Definitions

- **Recycled composite decking (リサイクル複合デッキ材)** – A material made from recycled plastics and wood fibers, used for outdoor flooring.
- **Locally sourced stone (地元産の石材)** – Stone materials obtained from nearby sources to reduce transportation emissions.

- **Permeable concrete (透水性コンクリート)** – A type of concrete that allows water to pass through, helping with drainage and stormwater control.
- **Carbon-neutral materials (炭素中立材料)** – Building materials that are produced with minimal or no carbon emissions.
- **Reclaimed wood (再利用木材)** – Wood salvaged from old structures and repurposed for new projects.

Part 4: Answer Key

1. **Why does Sophia prefer permeable concrete for the pathways?**
   ✅ (D) It helps with stormwater management
2. **What is the advantage of locally sourced stone?**
   ✅ (B) It reduces transportation emissions
3. **How does recycled composite decking benefit the project?**
   ✅ (C) It is made from repurposed materials
4. **What is a reason for using reclaimed wood in landscape projects?**
   ✅ (D) It minimizes deforestation