

# SUSTAINABLE CONSTRUCTION

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## Part 1

1. What four functions does the lecturer outline in planning a new building?
2. Why do traditional buildings in different countries not all look the same?

## Part 2

3. Give an example of traditional building materials used in Saudi Arabia and Africa.
4. What causes people to feel sick in modern buildings?

## Part 3

5. The lecturer gives the six stages of creating a new building, what are they?
6. What example does the lecturer give of an emission from a building which has to be reduced to improve the environment?

## Part 4

7. What is the aim of sustainable construction?
8. How much energy could we save in the next 4 years by adopting the guidelines in the government White Paper on Environmental Issues on new building work?

## Part 5

9. Why do architects not want to do post-occupancy evaluations on the buildings they design?
10. What is a windcatcher, where can you see them on the university campus?

## Part 6

11. What conditions were the students asked to assess in the questionnaire on the use of a windcatcher in a seminar room.
12. What caused the windcatchers to perform poorly in the shopping centre?

## Part 7

13. What form of power does he say is used in the zero energy building outside St Albans, is it successful, if so in what way.
14. What method does the lecturer use to discover how well a building has performed as experienced by its users?

# Key

## Part 1

1. (1) climate modifier, (2) activity container. (3) resource utilize, and (4) culture symbol.
2. Buildings reflect the culture of their own country.

## Part 2

3. Mud walls and bamboo structures.
4. They are fully enclosed with no access to fresh air and have artificial lighting.

## Part 3

5. (1) concept and planning, (2) design, (3) involvement of architects, service engineers, planners and contractors, (4) design agreement and construction, (5) managing the building maintenance, and (6) refurbishment, recycling or demolition of the building.
6. CO<sub>2</sub>.

## Part 4

7. To promote buildings that are healthy, cost effective and environmentally friendly.
8. 20%.

## **Part 5**

9. Nobody will pay them to come back and do this work.
10. It is a ventilation system which brings fresh air inside a building from a pipe on the roof. There are 3 or 4 on the Palmer Building on the campus.

## **Part 6**

11. They were asked to assess the thermal, visual and comfort factors in the seminar room.
12. The windcatcher was not properly integrated into the building design at the planning stage.

## **Part 7**

13. The wind turbine provides power and the solar panels provide hot water. The wind turbine makes more power than the building needs so the excess is sold to the National Grid.
14. He asks building users to complete a post occupancy evaluation of the building.