

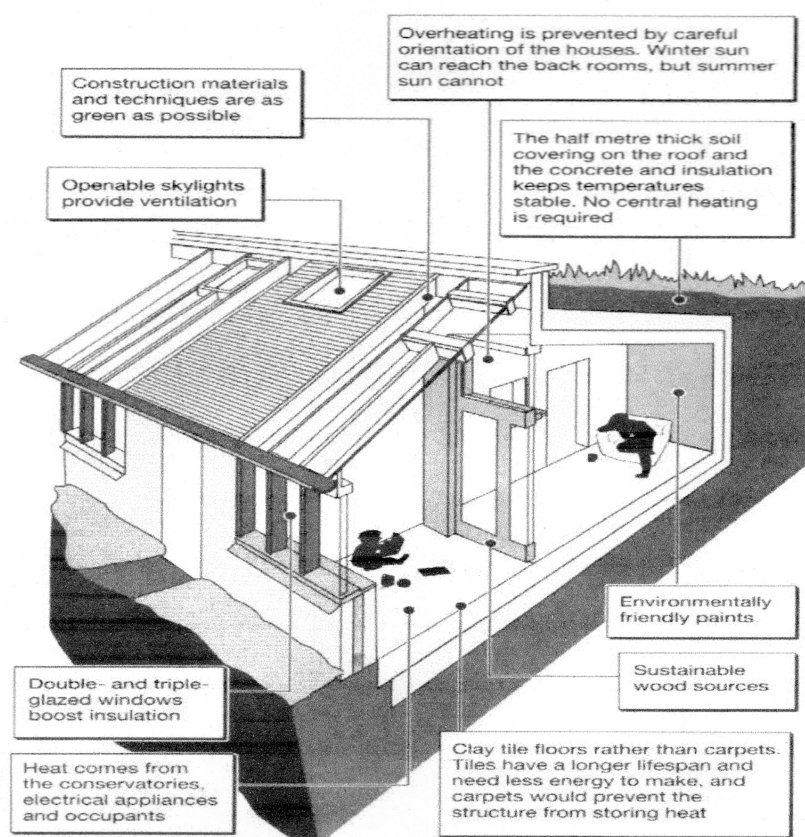
## SECTION EUROPÉENNE

### Épreuve spécifique de sciences physiques en anglais

#### Doc 1: Principles of Low Carbon Design

There are 4 main principles in order to reduce the emission of carbon dioxide when we build a house:

- 1 Understand energy use in the building type
- 2 Use the form and fabric of the building to do the work
- 3 Focus on insulation and air tightness
- 4 Use high efficiency building services with low carbon fuels (using renewable energy for example)



Doc 2: Hockerton house design

Doc 3 : video "EcoPrinciple\_3 Energy Efficiency"

Task: You are an architect and you have an appointment with a family. They would like to build a low carbon home.

After a presentation of energy issues of the 21<sup>st</sup> century, you have to explain what your construction choices would be in order to achieve this goal.

The following are guidelines for your work.

- Why is it important to reduce CO<sub>2</sub> emissions?
- What domestic appliances can we use inside the house to reduce our energy consumption?
- What is the interest of using windows with a large surface area of glass?