



**ACADÉMIE
DE NANTES**

*Liberté
Égalité
Fraternité*

SESSION 2022

**BACCALAURÉAT PROFESSIONNEL
ÉPREUVE ORALE SPÉCIFIQUE « SECTION EUROPÉENNE »
SPÉCIALITÉ TECHNICIEN D'ÉTUDE EN BATIMENT
LANGUE : ANGLAIS**

SUJET N°1

Durée de l'épreuve : 40 minutes

- Préparation	- 20 minutes
- Présentation de la situation	- 10 minutes
- Entretien sur les activités et travaux effectués dans la discipline non linguistique	- 10 minutes

SITUATION :

You are a trainee in **an architectural company in London**. This company is specialized in building sustainable houses.

Mr. Stephen Chance, your tutor, wants you to study documentation relating to sustainable housing in order to make a proposal for his new customers Mr. & Mrs. Smith.

Mr. & Mrs. Smith would like their house to be eco-friendly with a low environmental impact.

Use the documents to make your proposal and explain the technical specificities you have chosen.

Architectural company : Chance de Silva
Studio 14, Blackstock Mews, London N4 2BT



One of our projects : « Eco Vale »
Wood Vale, London

DOCUMENTS :

- N° 1 : SOLAR SHINGLES
- N° 2 : RAINWATER COLLECTING
- N° 3 : GREEN ROOFS
- N° 4 : GREEN INSULATION

DOCUMENT 1 : SOLAR SHINGLES



Solar shingles are an emerging technology, which combines solar panels and roof shingles. Unlike solar panels laid on top of the roof, solar shingles are part of the roof, serving as a power source for the building. Solar shingles are more expensive than solar panels. Solar shingles are wired and connected to the electrical system of the building. Ideally, they should have an optimal orientation that maximizes sunlight, to minimize electricity consumption.

Source : [Elements of Sustainable Architecture \(ny-engineers.com\)](https://www.ny-engineers.com/elements-of-sustainable-architecture/)



DOCUMENT 2 : RAINWATER COLLECTING

Rainwater collecting is a great opportunity for building owners to reduce water consumption, especially the water used to irrigate landscaping and gardens. This feature is commonly used by architects in their green designs, since its application is fairly simple.

Source : [Elements of Sustainable Architecture \(ny-engineers.com\)](https://www.ny-engineers.com/elements-of-sustainable-architecture/)

DOCUMENT 3 : GREEN ROOFS

A green roof is a space that hosts a variety of trees, plants and grass. This helps lower the temperature of an entire building, while improving the quality of outdoor air. The main steps to install a green roof are the following :



- Waterproofing the roof by laying specialized barriers.
- Installing a drainage material
- Placing soil and plants.

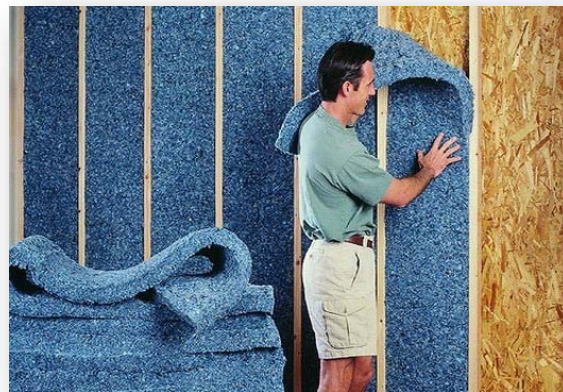
Source : [Elements of Sustainable Architecture \(ny-engineers.com\)](http://Elements of Sustainable Architecture (ny-engineers.com))

DOCUMENT 4 : GREEN INSULATION

Insulation is one of the greatest concerns when it comes to the construction of buildings and home

Here is a list of basic insulating materials :

- Wool insulation materials
- Natural fibre insulation materials
- Cellulose insulation
- Porotherm bricks, etc



Source : Green Building Technology – Concept, Need, And Types | Go Smart Bricks