

Student: I've decided to design a roof garden for a¹⁾ [redacted]. I've been looking at some on the web and I think that a garden on top of a building is the up-and-coming thing.

Tutor: OK. So you've done a bit of reading already? What benefits would there be for the client? (21/22) Why do you think a supermarket chain would be willing to meet the²⁾ [redacted] of construction? You do realise that would be the³⁾ [redacted] thing they raise.

Student: Yes, I know. But I'd explain that in spite of the initially high expense, they would⁴⁾ [redacted] that much in approximately five years. Well, I'd have to do sums, I mean calculate specifically ...

Tutor: Yes, how would the saving come about?

Student: Mainly through lower⁵⁾ [redacted] and aircon bills. The extra insulation offered by having a layer of living plants in the soil would make a huge difference.

Tutor: OK. (21/22) But they might feel the expense of⁶⁾ [redacted] would be an issue. After all, supermarkets don't normally employ gardeners.

Student: What I thought was, if they made it a⁷⁾ [redacted] garden, rather than a simple low-maintenance green roof ...

Tutor: So there'd be public access?

Student: Oh, yes! Then there'd be a sense of ownership in the local community and⁸⁾ [redacted] could take responsibility for it, instead of the supermarket paying a commercial company, and it'd really⁹⁾ [redacted] their public relations.

Tutor: That's a good point. And have you been looking into how roof gardens are built nowadays?

Student: I'm still exploring that, but if I take advantage of the latest technologies for roof gardens, it shouldn't be too difficult. But in any case, you have to use¹⁰⁾ [redacted] materials.

Tutor: But that's a matter of making the right choices. You can even use quite traditional ones such as¹¹⁾ [redacted] for the planting areas.

Student: Yes, that's what I thought. It'll look good and it isn't too heavy.

Tutor: But for the basic construction, the issue you have to address first is the material used¹²⁾ [redacted] the building and the garden.

Student: (23/24) You mean the barrier fabric, which ensures there's¹³⁾ [redacted] of rainwater leaking down into the building?

Tutor: Yes, nowadays that is very good, and quite easily sourced.

Student: Then on the other hand, there's the business of water within the roof garden itself.

Tutor: You mean drainage? That's an important feature of the construction in any roof design.

Student: Yes, but I think most drainage issues have been¹⁴⁾ [redacted] for quite a long time.

Tutor: OK, but another thing is with plants in an exposed situation, (23/24) you usually need to find ways to optimise rainfall.

Student: Yes, because rainwater is best for the garden, if you can store it for when it's needed. What I've been looking at are some buildings which use fairly¹⁵⁾ [redacted] storage tanks, the kind that have been in use for decades, but have them linked to modern automatic watering systems.

Tutor: Sounds complicated!

Student: It's less so in practice than it sounds, I think. I've been researching them and actually the latest ones definitely work very well and they can be electronically regulated to suit the local microclimate.

Tutor: Mmm, that sounds interesting. You seem to have been doing some thorough research! Make sure you¹⁶⁾ [redacted] all your sources when you write it up.

Student: Yes, sure. Um, there's one more aspect I'd just like to run past you, if there's time? I want to include a¹⁷⁾ [redacted] feature in the design.