

1. *Thinking starter:*

- *What material are roofs in new buildings in your area made from?*
- *What materials are the roofs in older buildings made from?*
- *Is there any link with what is locally available? (e.g. stone, slate, clay tiles...)*
- *Why do modern buildings use materials bought in from elsewhere?*
- *Why might a family change from using traditional materials for their roof to newer materials?*
- *Jot down your ideas on some paper – they may help you later.*

Notes: When selecting building materials, people must balance the suitability of the material's properties for local conditions with availability and cost of that material. For example, they may choose a locally available raw material or the material may be sourced or manufactured elsewhere and need to be purchased at greater expense.

2. Look through the PPT which details the problem and think about the suitability of different materials for a roof.
3. What considerations need to be taken into account when finding a suitable roof? Look at the data presented about the rainfall in Bangladesh – this should help you decide on what qualities the roof needs to have.
4. Can you devise a test using some materials you find around your house? How could you test whether they would be a good material to use and keep the experiment a fair test at the same time?
5. What conclusion have you come to? Can you name some suitable materials for a roof and also give reasons for why they would be a good choice? Think about the scientific qualities of the materials.