

### **Local materials**

You can expand on the slide image of local materials by investigating how buildings around the world are made from locally available materials, and develop this into an extensive project. What would happen if we transplanted these materials elsewhere? As an example, the Centre for Alternative Technology uses rammed earth walls as an internal structure in two buildings. Why are rammed earth walls in Wales internal instead of external as they are with the adobe earth buildings of South America or Southern Portugal? What about local materials in Wales? How are they suited to the climate, and the period that they were built? Stone cottages for example are difficult to insulate, and difficult to heat quickly, but they were built at a period of time when the woman of the house stayed at home all day and kept the fire stoked.

### **Buildings Past and Present**

You can discover how the buildings in your region have changed throughout time. What factors contributed to them being built in the first place, what materials were used, and how have these changed over time? Using the example of keeping stone cottages warm (see above) how has the way that buildings are used changed over time too? How has the size of homes changed?

Pupils could also measure the size of their home and ask their grandparents how big their home was, how many people lived in it, was their bedroom heated? This could lead to discussing how it is different, why, and what the impacts are.

### **Regional Maps**

You can also use the regional maps or aerial photographs to consider the footprint of the buildings in the region. Estimate the proportion of the area that is covered by buildings, this is what architects usually call the building footprint. Ask the pupils to consider how much of the region those buildings might cover if you include the land required to produce the materials that the buildings are made of – this is the actual eco footprint of the buildings and is much bigger.