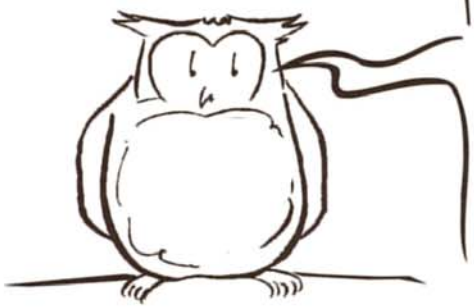


The aims of the sheets are to give the children a structure for planning their own investigations. You should:
- *check the children's planning*
- *consider how much guidance they need in each stage of the investigations*

More able children who can cope with compound measurement (weight in relation to size – density) can be given wood samples of the same external dimensions for Sheet 5A. In discussing their findings they might recognise that denser hardwoods are generally more durable than lighter weight woods, including softwoods.

ACTIVITY 1

Refer to the survey of wear and tear on wooden things in school. See *Sheet 2B*.
- What kind of wear is it – dents, scratches, splintering?
- What part of the object is worn?
- What are the differences between the worn and unworn areas?
- Is the wear caused by use/misuse/weathering?

ACTIVITY 2

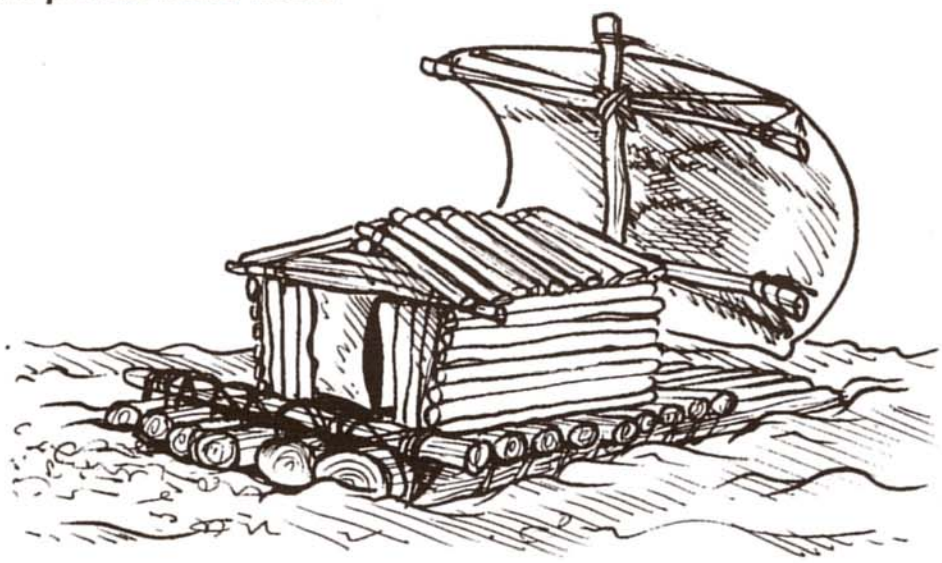
How is the wood treated to protect it from the weather? Children can examine huts, sheds, gates, fences, doors, window frames, outside play areas etc. and list different ways of protecting wood. Several samples of the same kind of wood could be coated with different preservatives/ varnishes/ paints and left exposed to the weather over a period of time. Any changes should be recorded and discussed.

Many varnishes/ preservatives need great care when handling. You may wish to treat the wood yourself.

ACTIVITY 3

Water and wood, floating and sinking, boats etc. is a huge area of study which might expand the topic too widely. However, Thor Heyerdahl's story of how six men journeyed 6000 km across the Pacific on a balsa wood raft (*The Kon-Tiki Expedition*, pub. Allen & Unwin) might be worth dipping into. Some sections could be read to the children. You could point out that, had the raft been made of kiln-dried balsa wood:

" the raft would long ago have sunk into the sea under us, saturated with sea-water. It was the sap in the fresh logs which served as an impregnation and hindered the water from filtering through the porous balsa wood."



From discussion of this, the children could develop their work on Activity 2 above, understanding that some wood treatments protect wood by covering its surface, and some by filling up the space formerly occupied by the sap (impregnating it).