The size of Stone Age structures

Objectives
- To appreciate the size of Stone Age structures.
- To check estimates with measurements.
- To work in small groups.

Cross-curricular links
Mathematics
4a Recognise a standard unit of length and use it to make sensible estimates.

4b Use a suitable measuring instrument.

Resources
You will need an open space such as a school field. You may like to have a large amount of corrugated cardboard to make a model of Long Meg. A sports tape. Teacher helpers. Each child or group will need a metre rule.

Starter
Tell the children that although they have spent a great deal of time studying Stone Age people it helps to appreciate them more if you consider the size of the things they made and used. Tell them that they are going to begin by estimating sizes and then measuring them out.

Main activities
1. Take the class out onto the school field and tell them that a Stone Age house could have an area of 40 square metres. They can appreciate this size if they measure one wall of 8 metres length and another of 5 metres length at right angles to it.
2. Ask three children to estimate these lengths and stand at three corners of the 'house'.
3. Ask another three children to measure out the dimensions correctly and compare the actual measurements with the estimates.
4. Tell the children that a barrow could be 52 metres long and up to 18 metres wide. Ask four children to estimate these lengths and stand at the ends and the widest parts.
5. Ask another four children to use the sports tape to check the estimates.

6. Tell the children that some of the stones used in circles were huge and give Long Meg as an example, being 3.6 metres long. Ask two children to estimate this distance and another two to measure it.
7. You may like to stick the cardboard together to make a structure 3.6 metres long and, if it is safe to do so, raise it so the children can see how tall it is.
8. Tell the children that the Castlerigg circle is 30 metres across and let them estimate its size, then measure it out.
9. Arrange the children around the circle and say that each one represents a stone. There are 38 stones in the real circle so to make yours a more accurate representation you may have to recruit children from another class. Take photographs of the circle for final display work.

Plenary
Back in the classroom discuss with the children how looking at the sizes of the monuments changes their ideas about Stone Age people. You may also add that a long barrow may be taller than Long Meg.

Outcomes
The children:
- Can make sensible estimates.
- Can make accurate measurements.
- Gain further insight into the lives of Stone Age people by considering the dimensions of the structures they made.