



*The aims of these sheets are to explore:*

- *stable shapes and rigidity*
- *different areas contained in a given perimeter*

Some children will need to experiment with modelling wire, or matchsticks set in Plasticine before they can visualise the structure underpinning the homes on sheet 10A. Encourage the children to see the importance of the triangle made between the ground, the height of the tent and the rope of the Bedouin tent.

More able children working on Sheet 10B could explore the area contained in a hexagon with 4cm sides, an octagon with 3cm sides, and a dodecagon with 2cm sides. They may also see that more and shorter sides get nearer and nearer to being a circle, which is the largest area for a given perimeter. They may also see the circle as an infinite number of sides of infinitesimally small length.



### ACTIVITY 1

The children can work in groups in the playground to draw circles of different radii to act as the ground plans for yurts.

They will need lengths of skipping rope or string and chalk.



They could then work out how many people could comfortably make their home in each space and what special areas they would need.



### ACTIVITY 2

Scouts and Guides in the class might describe or show to the class ways to make a bivouac.

**ACTIVITY 3**

Using this description of the tree house, the children could write a story (with illustrations) about the children who built the tree house and their adventures in it.

## The Tree House

Oh, what a home from home,  
That secret place I used to share,  
With friends and treasure, but  
never foe.

High in the clouds I felt I was,  
Like that hero Jack and his magic Beanstalk,  
But no giants up here to trouble me,  
Just me, and the tree, in secrecy.

Those knarled and knotty helping hands,  
When I climbed to my house in the sky,  
Just right for toe and hand,  
An ancient Oak ladder to help me  
home.

So majestic the Oak tree  
stands,  
Wearing my house as a clumsy crown,  
But when I'm in my home from home,  
I'd rather be there than on the ground.

