

investigation backed-up by resource materials such as charts, models and CD-ROMs on human anatomy.

Blood is pumped round the body by the heart, through branching blood-vessels (arteries, veins and capillaries). Since direct observation of the heart is not possible, children necessarily have to learn most of the facts about its structure and working from resource material; but they can listen to the action of their own hearts, find their pulse and count it: skills which can then be used when investigating the effects of exercise (Activity 3.9.1). They can also carry out simple observations on their arteries, veins and capillaries.

### Activity 3.8.1

#### Listening to the action of the heart

*Equipment and materials: Plastic funnel about 8cm diameter; 80cm plastic garden hose, outside diameter about 2.5cm; tapered pen-top whose wide end will fit into the hose; adhesive tape; craft-knife; fine sandpaper.*

- Make a simple stethoscope as shown in Fig. 3.7, unless a clinical one is available. Push the spout of the funnel firmly into one end of the hose. To make an ear-piece, insert the wider end of the pen-top into the other end of the hose and fasten it firmly with adhesive tape. Trim the tip off the pen-top until the stub is about 6mm in diameter; smooth this down with fine sandpaper.

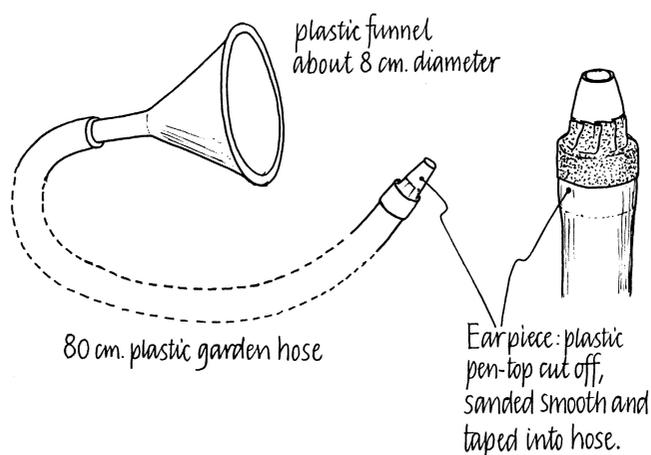


Figure 3.7 Making a simple stethoscope

This simple stethoscope will enable children to hear the action of their own hearts (or someone else's). For the clearest sound, only a thin shirt or tee-shirt should be worn.

- Hold the funnel by its stem and the other end of the hose near the ear-piece; put the ear-piece into one ear.
- Sit down and place the rim of the funnel firmly on the chest, level with the nipples and a little left of the mid-line. Keep quite still (especially, do not move your fingers on the funnel or hose) and listen.