FINISHED MODEL

There is a drawing of the finished focussed activity. This is probably the most useful single item! In some cases it gives you all the information you need to replicate the model. Although a drawing and not a photograph, the model has been made, many times - it will work! Not only have all the projects been constructed by us, they have been built by children of the target age - many times!

EXPLODED VIEW

This shows the same model with the components spread. This is a common way to represent a set of parts that must be assembled - it is much used in the world of 'flat-packs'. Although the parts are separated, their orientation is preserved - they point in the correct direction. Where relevant, the parts are labelled and linked to a Parts List.

PARTS LIST

Self explanatory - however there are a few points to mention. Dimensions have been kept to the minimum. Although it doesn't say so, ALL WOOD IS 10mm SQUARE SECTION SOFTWOOD. You will notice that I have used millimetres here but centimetres elsewhere. The millimetre is an SI unit of measurement - the centimetre is not. *(Have you noticed in the DIY store that a sheet of board will be marked as '2440 mm x 1220mm', or something similar !)* The catalogues you use to purchase materials are likely to name the wood 10mm - even if you call it one centimetre square in class!
Dowel is always 5mm diameter, so are paper sticks, unless an alternative size is specified.
Thin card is something like copy-card; stiff card is more like cereal box card.

ORTHOGRAPHIC PROJECTION

Some project pages show more formal working drawings of the focussed model. These are arranged in the manner of technical drawings. There will be one or more of the following: Top view (plan); Side view (side elevation); end view (end elevation).We have included them to help to establish the relationship between two-dimensional drawings and three-dimensional objects, not to be used during the making of the model, (unless that's what you wish, of course). It is here where children will be able to note that a wheel may not appear round on a drawing! *You will find more on this elsewhere in this manual.*

DESIGN BRIEF

Here the design problem is outlined - remember that you can alter or replace it or ignore it! You may notice a somewhat schizophrenic style to the writing in this section. This is because some of the words are addressed to the teacher and others to imaginary children! You can sort out which is which.

POSSIBLE SOLUTION

There should be a question mark after this heading. I think that what is shown is a possible solution to the design brief but have to confess that what is shown has, in almost all cases, NEVER BEEN MADE! Having said that, nothing misleading has been suggested. What is on view should give some direction to those who are unsure how to begin. Copy with great care.

EXTRA DEVELOPMENT

This section is not present in every Supported Design Project. It is there only when there is a different line of investigation that might be worth following - a sort of 'clue' to find other ideas.

FOCUSSED PRACTICAL PROJECTS

Following the SDP section you will find a number of technology projects shown without a fully outlined design brief.
It is our opinion that these, plus the focussed tasks included in the first section, are worth tackling in their own right.
A child doesn't need to 'design' a periscope for example, but it's great fun to make one that works, and there's lots of science and technology to be learned during the process.
Having said this, many of the activities are likely to suggest further explorations and this opens the door to structured design activity.

These pages have a drawing of a finished model and often an exploded view.
There are building instructions and, in many cases, a suggestion of a direction you might take to expand the project further.