



Design and designing

Experimenting with shapes

Activity Six, making a simple mug in card. In the previous activity you were involved in making flat shapes. This is going to test your ability to make curved shapes. What we want to do is produce a rectangle that will become the outline of the mug so we are going to need to produce a rectangle to the appropriate size. We need to add a little bit to it so that we have got something to stick it together with and we need to make the base. The base will be a circle but of course if we are going to stick it to the sides we're going to need some tabs running all the way around that circle, all the way round to here. So how do we go about doing that. Well, we need to measure a mug and I suggest you pick one that doesn't have tapered or too curved sides because it is going to be pretty difficult to make. So get a straight sided tea or coffee mug and measure it – my one's ten centimetres tall – so I know that this dimension is going to be ten centimetres. How do we find the length of that? Well, you simply make yourself a little strip of paper and wrap it round just as if you were taking your waist measurement. Take my pen, make a little mark on there and then I've got the equivalent of the circumference of my cup and I can use that for the measurements, not forgetting to leave an extra little bit, I suggest 20 mm more to do that, and I've got my shape cut out here with my extra 20 mm on, I've got my circular shape here with my little tabs and you'll can see I simply allowed a little bit extra over that and the way I created that was to put the mug down on to the card, draw around it and then allow another centimetre or so for the tabs and simply snipped it with a pair of scissors to create these little tabs. You fold them upright – and if you are using a stiffer card you might need to score it like we did in the previous activities with the blade of a pair of scissors and a ruler – and gradually work them all upright such that they can then be stuck to the cylinder of your mug. Now the way to go about that is not just to coat them all with glue and hope for the best but you need to stick one first of all at the beginning of the card and gradually work your way around. You can either use sellotape if you feel confident with that or you can use a liquid adhesive and stick it all the way round and your mug will take that sort of form. And here's one that I did before and you can see that it is in simple paper but the base is held quite securely for this modelling activity, with sellotape. The handle is simply made by taking some strips of card, in this case I have just approximated the handle by doing it that way. An alternative way of doing it would be to get some strips of card equivalent to the thickness of the handle, the breadth of the handle there, and I've started to shape and sculpt this one but you could get three, if it has thick card, or several strips, stick those together and they can then be shaped around to produce the handle form that you want. So you could, by sticking several of these together, end up with a handle that had thickness as well as the breadth, and then simply stick it on to your cylinder with sellotape or the liquid adhesive. So that would be your mug in card, simple curved surfaces.