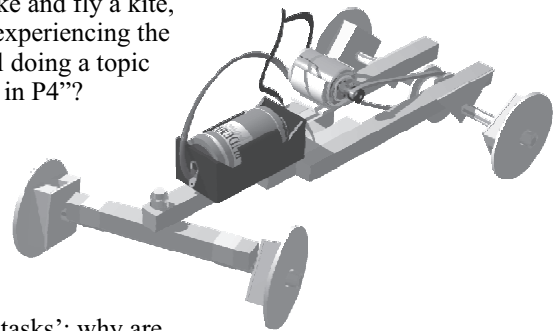


How do we maximise the time spent making our models or toys (*or meals or clothes*) and still fulfil the requirements of official Guidelines? We know that the time allocated to technology isn't going to be enough to cover all the research and investigation that is often suggested without making inroads into the construction time. You have to ask yourself what is the purpose of this research, the answers are likely to fall into two main categories.

1. To give the child enough information to be able to complete the set design task, ie. findings that are specifically related to the project. The project should always be under the control of the teacher so the teacher can also control and limit the sources of relevant information. If, for example, an important design decision will have to be based on the result of a survey then pre-prepare that survey. If you have your class asking the infants what their favourite toy is, you will get a lot of meaningless data that will be of no use to the class who are preparing to make a soft toy. So rig the questions so that they're like, "What's your favourite colour for a stuffed pig?" Better still save even more time by presenting your class with a *fait accompli*. A completed set of 'useful' statistics.

2. Of course you might want the children to collect data, perhaps as an exercise in data handling. That's fine, but it doesn't have to come out of your valuable technology time. The preparation of a questionnaire sounds to me to be a functional writing exercise, and the number crunching has to be either maths or ICT. So find a subject for a survey that's more relevant to the maths than making a toy.

This is it! This is the underlying problem. The belief that an activity is only worth pursuing if it can be linked, however spuriously, to some all-embracing topic. You don't expect all your language work or your number work to fit into every topic so why all the attainment outcomes of ES? Why not make a kite because it's fun to make and fly a kite, and because the children will learn an amazing amount about the wind, experiencing the pull on the string and the vibrations so created. Why wait until you're all doing a topic on China? Why have to say, "We do flight in P7 so we can't make a kite in P4"?



### DESIGN & MAKE STRANDS

'Preparing for tasks', 'Carrying out tasks', 'Reviewing and reporting on tasks'; why are these strands exclusive to Technology? Well, they are not. They are also the three strands of 'Skills in science - investigating'. They are indeed the inevitable sequence of any endeavour, even if the preparation takes only a second and you live with the consequences forever. Why make a big deal when it comes to technology? I would hope that every piece of written work would proceed by these three stages of preparation, execution and evaluation. I would expect every expressive arts outcome would involve preparation, execution and evaluation. So why treat every technological activity as if it's special?

By planning Design and Make activities that always include both designing and making you seriously restrict the child's creativity. If everything a child designs is intended to be made by that child, or if the child only makes objects that he or she has designed, that child is trapped in a loop that restricts the acquisition of experience. Each, by being dependent on the other, limits the other.

Let's take an example. Primary 3 children are designing traffic calming measures for the road outside the school. (*Recognise this don't you?*). Let the kids free on this and we would like to think that they're likely to suggest things like: a giant magnet under the road - non drying glue - planting quick growing jungle - arrester hooks - a crocodile pool - giant elastic band stretched between the lamp-posts - giant mirror in the road - ghostly noises to frighten drivers - school raised on artificial mountain - spikes in the roadway - real sleeping policemen (with alarm clocks) - land mines - tunnels. . . . Brilliant! Do they really need to make models of these?

On the other hand, P5 might make a model aeroplane that really flies - though never design it, but build it from plans found in a book . Would that make it not worth doing? Would it not be an acceptable technology project? More significantly would it not enhance the child's technological capability?