

## Post It planner variable examples crib sheet

Using the Post It Planner method helps students to see beyond 'fair test' and really visualise all the possible factors that are acting on any situation. Experience shows that the more children take this approach and apply it to different experiments, the better they get at identifying variables and most importantly, controlling them. The presentation 'Post It planner variable examples' allows teachers to show two examples of common classroom experiments. The children then use them to identify the variables involved in each situation either on whiteboards or even on their own copy of the presentation where they have their own devices.

Typically children will focus on the very obvious 'objects' in the diagram when first attempting this work but with repeated practice they will start to pick up on the more subtle possibilities. Children have commented 'temperature in classroom' or even 'day of the week' once they get into understanding that everything around the experiment is a variable. This opens up a useful discussion about what is likely to affect the experiment in a way that will have negligible bearing on the outcome or potentially gives a misleading result.

When first using this method children often find it hardest to identify the two variables that you want to specifically control and measure. Experience shows that repeated use of the method overcomes this for most children. For example, where time is a measured variable (of course it is invisible in a diagram) they will often start to add a clock into their diagrams (but control who is the timekeeper!) The key to developing understanding is to make sure that the key question that the experiment will address is always referred back to. This helps to uncover the less visible variables such as time or distance.

The example below shows examples of variables that could be applied to the first of the practice experiments in the resource. The resource also includes two 'blank' slides for teachers to use for further examples if they want to. It is clear from this example experiment that the children could potentially choose to measure the time taken to cover the distance of the ramp or the distance travelled from reaching the surface the ramp sits on. Typically this experiment changes the material laid on the ramp to demonstrate how different materials create different levels of friction.

