

Why Make a Model?

When you have virtually finished the design project it is a good idea to make a model as this will allow you to test your solution.

This will help you determine whether your idea is going to work or needs modifying.

A model allows you to test your solution quickly and cheaply.

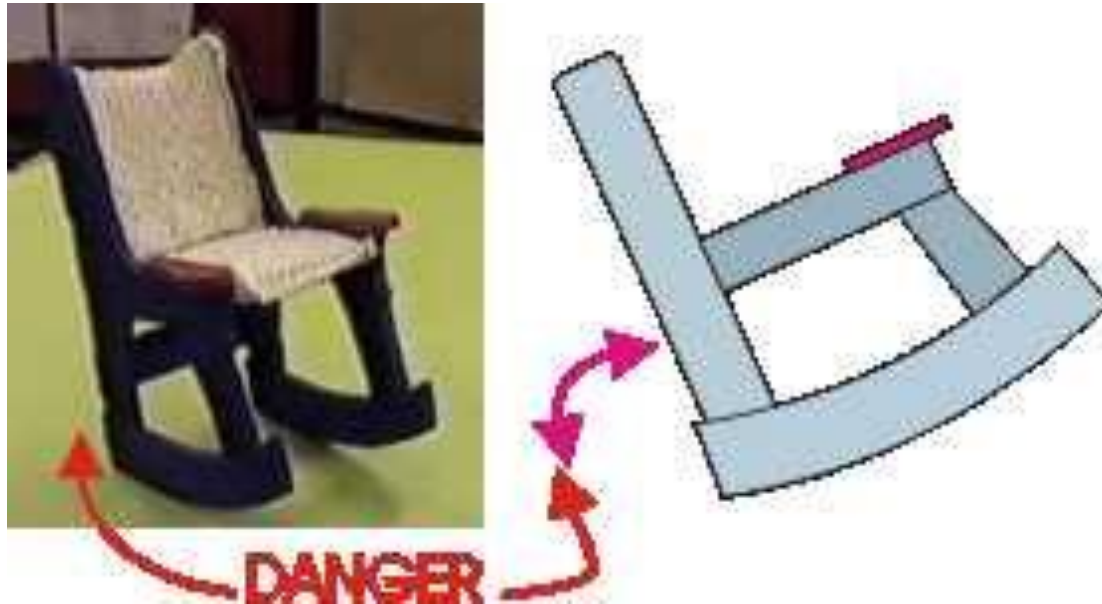
Imagine the time and money that would be wasted if a car manufacturer designed and manufactured a new car without testing it on potential customers.

If the car was not popular or was found to have faults, hundreds of millions of pounds would be lost.



Test Your Designs

A Model of a Rocking Chair



What will happen if a person leans back in the chair ?

SCALED MODELS

A scaled model is a model that is made $\frac{1}{2}$ or $\frac{1}{4}$ or $\frac{3}{4}$ etc... the full size of the real solution. This means the model can be quite small but have the same proportions as the solution. The model is a miniature of the real thing.

A Scaled Model of a Guitar



The model guitar is approximately $\frac{1}{4}$ the size of an actual electric guitar but it is identical in every other detail.

HOW CAN A SCALED MODEL HELP SAVE TIME AND MONEY ?

Models will help you improve your solution before spending time and money making the actual item.

A model will often help you identify faults or design problems that cannot be spotted on a drawing or sketch.

MODELLING MATERIALS

A variety of materials can be used for model making. These range from MDF, plastics, card and paper to specialist modelling materials like Styrofoam and Plaster of Paris. Materials such as Plastercine can also be helpful. Generally, select materials that are easy to cut, shape and colour.