



Flat-Pack

Scenario

Your team has been recruited by a well-known furniture company to design and build a table and two chairs for their new homewares range of furniture. They must be cost effective, easily transportable and strong enough to withstand the weight of Ginger (the cat) and Spot (the dog) sleeping and playing on them.

Aim

The aim of this full-day activity is to make a profit.

The table and chairs that you build must be strong and represent good value to customers, but not cost too much to build (materials) and transport.

What to do

A table and two chairs must be built to support both Ginger and Spot.

Your team will build a chair in the morning session which will then be tested and scored. Following this, they will be kept and dismantled by the Event Staff.

Using what you have learned, your team will then build a table and chair in the afternoon session. Both will be tested towards the end of the session.

The materials for the construction of the table and chairs can be 'purchased' from the shop throughout the day. Unused and undamaged materials can be returned for credit before the shop closes.

Rules

The top surface of the table must be at least 10cm above the ground. The chair must have a back support at least 5cm x 5cm in size and the horizontal part of the seat (that you sit on in a real chair) must be at least 5cm above the ground.

The chair built in the afternoon session needs to be able to fit under the table.

During the drop tests Spot must stay on the table/chairs, but Ginger need not.

Testing finishes when the table/chairs break, or when they withstand all the tests.

Attempts to damage the animals will be severely penalised.

Scoring

Income is generated if the animals can be supported on the table/chairs. Further income is generated if the table/chairs are able to support Ginger and Spot jumping onto them from various heights.

Profit is calculated by subtracting material and transport costs from income.

Tips

Be creative; a chair doesn't have to be a platform on four vertical legs.

Pay careful attention to the joints of the table and chairs. Joints are the most common place where furniture fails during testing.

The chairs should be able to support Ginger and Spot seated together, whereas the table needs to be big enough to have the animals sitting side-by-side. In the afternoon session your team will need to keep in mind the minimum height of the table and the chair, as they are different.

Remember that your team's performance is measured by the amount of profit, i.e. income minus expenses, not just the strength or mass of the table or chair.