

Unit 1 - Activity 4

Designing and Making a Parachute

Outcomes

- Finding out how parachutes work
- Experimenting with parachute shapes

Materials:

paper bags
plastic bags
string
modeling clay
glue
clear adhesive tape
recycled materials

Tools & Equipment:

scissors
tape measure
ruler

Experiment - Building Background

The parachute has to be the right shape if it is going to work properly. It catches air in its canopy. The forces created by the captured air push upwards and slow the speed of the parachute's descent.

Experiment by attaching pieces of thin string around the edge of a paper bag. Add some modeling clay as a load and see if you can make it float to the ground. Do the same with a plastic bag and see which material works best.

Observe what happens as the bag descends. Does it float to the ground smoothly? It is very important to have a good balance between the forces pushing upwards and the modeling clay counterweight. If the forces pushing upwards become too strong,

the parachute will flip over and the captured air will escape. This would be very dangerous if it happened to a real parachute.

Hint:

Parachutes have vents in the top of the canopy to allow the trapped air to escape slowly. This prevents the canopy from flipping over and crashing.