Paper-copter

Materials

- Template
- Scissors
- Paper clip

Instructions

1. Cut out the template, cutting along the solid lines only.
2. Fold along the dotted lines:
    * fold panel ‘A’ towards you
    * fold panel ‘B’ away from you
    * fold ‘C’ and ‘D’ so they overlap
3. Fold up the bottom panel and secure with a paper clip.
4. Hold the paper-copter up high and let it fall to the ground.

What happens?

The paper-copter falls to the ground because of gravity. As it falls down through air, the air pushes back up on the paper-copter blades, making it fall more slowly. The paper clip provides weight to help the paper-copter start falling the right way up. The spinning motion of the paper-copter makes it very stable so that it falls smoothly through the air and stays the right way up.

Why does it matter?

Some plants, such as sycamore trees, have seeds that fall slowly to the ground in a similar way to the paper-copter. Sycamore seeds fall to the ground slowly as they spin round and round on a ‘wing’, giving more time for wind to blow the seeds away from the tree to land where a new tree might grow. This is called ‘wind dispersal of seed’. Dandelions use a similar method to spread their seeds, with the white fluffy parts allowing the seeds to float away in the wind.

Related activities

Try changing the length of the blades on the paper-copter by using scissors to cut the blades shorter. Have paper-copter races to see which length of blades falls the fastest and which falls the slowest.

Health and safety considerations

- Risk of falling from heights: assist children to find safe ways of observe paper-copters falling.