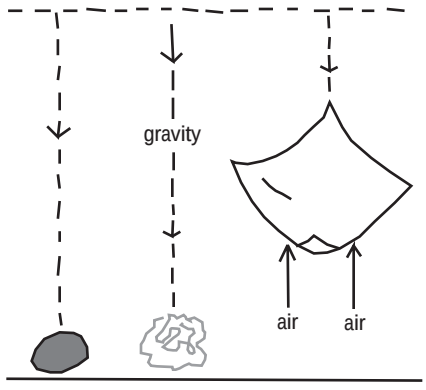
CANADIAN BUSHPLANE HERITAGE CENTRE

Activity Card

"Gravity"



OUTCOME: To demonstrate how objects will fall to the ground because they are pulled towards the earth by a force called gravity.

PROCEDURE:

1. Drop two small pebbles from shoulder height at the same moment. Do they hit the ground at the same time?
2. Repeat this test with one pebble and a tightly crumpled-up piece of paper. The pebble and the ball of paper will hit the ground at the same time because the pull of gravity is the same on all objects, no matter how heavy they are.
3. Try the same test with a flat piece of paper and a crumpled-up piece of paper. Repeat this test a few times. Why do you think the flat paper falls more slowly?

Theory: As the papers fall, the air passing around them acts as a break and slows down their fall. The flat paper falls more slowly than the crumpled-up one because its larger area means that more air is trapped underneath. This breaking force of the air is sometimes called "drag". Parachutes use this breaking force to bring flyers safely down to earth. Some fast jets use parachutes to slow down as they land.

MATERIALS NEEDED:

two pebbles
crumpled paper
flat paper