

Flat Cardboard Wing

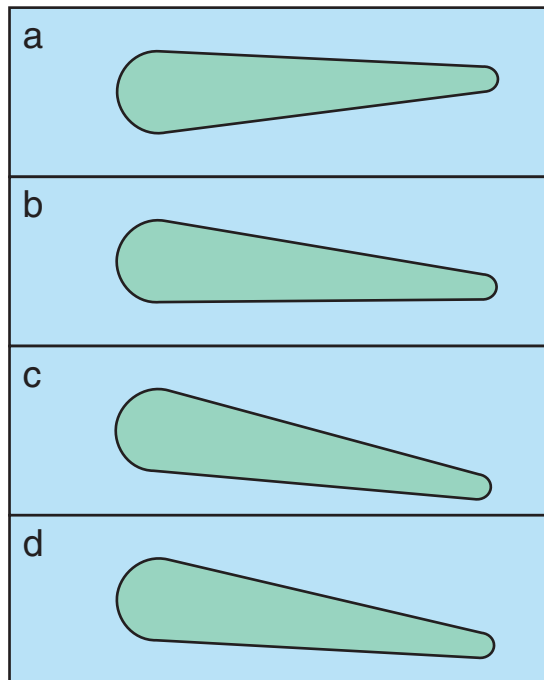
- 1) Obtain a stiff piece of posterboard or lightweight cardboard from your teacher. You will think of this as a wing. The cardboard should be at least 40 cm by 40 cm, but not so large that it becomes hard to handle.
- 2) What force will you expect to feel acting on the cardboard when the cardboard is tilted up and when tilted down? Give reasons for your answer.

- 3) Go to an area approved by your teacher. The area should be large enough for you to run with the cardboard in your hand.



Run with the cardboard to test your predictions. Try tilting the cardboard up and down as you run. Run at different speeds.

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Explain your answer:

7) What difference does the speed at which you run have on the upward or downward force on the cardboard?

8) What would happen if an airplane goes through the air too slowly? Why?

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9) What happens to a kite you are flying if the wind stops blowing?



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10) Explain why the slope of a wing can cause a wing to have lift.
