

THE AEROPLANE

WITH THE NAME OF ALLAH, MOST GRACIOUS, MOST MERCIFUL.

In the Noble Quraan, Allah (S.W.T.) encourages us to learn lessons from nature.

We read in Sura al- Mulk (ch. 67) verse 19:-

“Do they not observe the birds above them, spreading their wings and folding them in? None can uphold them except (Allah) Most Gracious: truly it is he that watches over all things.”

Human beings have studied the flight of birds which helped in the making of aeroplanes.

What keeps the aeroplane up?

The wings of the aeroplane have a special shape. They are curved on top and straight underneath. This shape of the wings helps to lift up the aeroplane.

The wings of the **Concorde** aeroplane were specially designed to lift it steeply and quickly into the air .

How did we learn to shape the wings of an aeroplane in this way?

By observing the flight of birds and seeing how our Rabb had designed their wings.

When the aeroplane starts to move, the wings cut through the air. The air moves over the curved top of the wing and under the straight bottom.

The air moving over each wing pushes down on it, and the air moving underneath lifts it up.

The curved top of the wing is longer than the straight bottom.
The air cut by the front of the wing must join up again at the back of the wing.

This means that the air moving over the wing has to travel further than the air moving under it.

It has further to go, so it must move faster.

Air is a gas and the faster a moving gas goes the less pressure or push it makes.

So the push or pressure down on to the wing is less than the pressure underneath it.

As the pressure on top of the wing gets weaker the pressure under the wing begins to lift the plane.

This is how the aeroplane leaves the ground.

As long as the aeroplane keeps moving, the wings lift it and make it fly.

For the aeroplane to fly, the lift on the wings must be greater than the weight of the aeroplane.

Also, the thrust or push of the engines must be stronger than the backward drag of air friction.

Worksheet

1) Whom should we thank for having learnt to make aeroplanes?

2) How do the wings of an aeroplane help it to fly?

3) Is the curved part of the wing of an aeroplane longer than the straight bottom?
