

CSS-2009

It is in the very nature of the helicopter that its great versatility is found. To begin with, the helicopter is the fulfillment of one of man's earliest and most fantastic dreams. The dream of flying— not just like a bird— but of flying as nothing else flies or has ever flown. To be able to fly straight up and straight down — to fly forward or back or side wise, or to hover over and spot till the fuel supply is exhausted.

To see how the helicopter can do things that are not possible for the conventional fixed-wing plane, let us first examine how a conventional plane "works." It works by its shape — by the shape of its wing, which deflects air when the plane is in motion. That is possible because air has density and resistance. It reacts to force. The wing is curved and set at an angle to catch the air and push it down; the air, resisting, pushes against the under surface of the wing, giving it some of its lift. At the same time the curved upper surface of the wing exerts suction, tending to create a lack of air at the top of the wing. The air, again resisting, sucks back, and this gives the wing about twice as much lift as the air pressure below the wing. This is what takes place when the wing is pulled forward by propellers or pushed forward by jet blasts. Without the motion the wing has no lift.

Questions

(i) Where is the great versatility of the helicopter found?

The great versatility is in the very nature of helicopter. Therefore, the great versatility of helicopter enlarge and enables to operate.

(ii) What is the dream of flying?

The dream of flying is different from other flying objects. The dream to fly different from birds, fly nothing else flies or has flown. The dream is to fly in the sky straight up and straight down, to fly forward or back or side so on and so forth.

(iii) What does the wing of the conventional aircraft do?

Ans: It deflects air when the plane is in motion. Moreover, it reacts to force. The wing is curved and set at an angle to catch the air and push it down.

(iv) What does the curved upper surface of the wing do?

Curved upper surface of the wing exerts suction, tending to create a lack of air at the top of the wing. Therefore, curved upper surface plays role in the operation of flying.

(v) What gives the wing twice as much lift?

Ans: The air, again resisting, sucks back and gives the wing about twice as much lift as the air pressure below the wings. Thus, it gives capability for the plane to carry operation.

Marks Obtained

		YES	NO
1.	Idea was picked?	<input type="checkbox"/>	<input type="checkbox"/>
2.	Language structure is appropriate?	<input type="checkbox"/>	<input type="checkbox"/>
3.	Quality of organization and cohesion?	<input type="checkbox"/>	<input type="checkbox"/>
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Comments
