



GREENWOOD MILITARY AVIATION MUSEUM



Flight Education Reference Manual

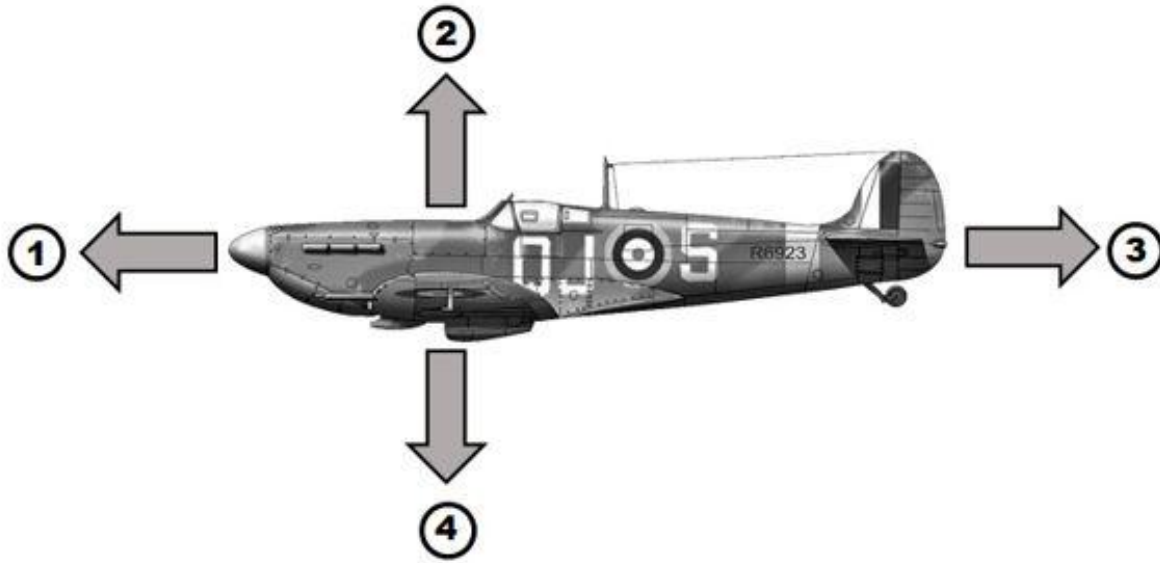
QUIZ THE FORCES OF FLIGHT

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Greenwood Military Aviation Museum

(Forces of Flight)



1. Using the illustration above, print the name for one the four (4) forces of flight next to each number.

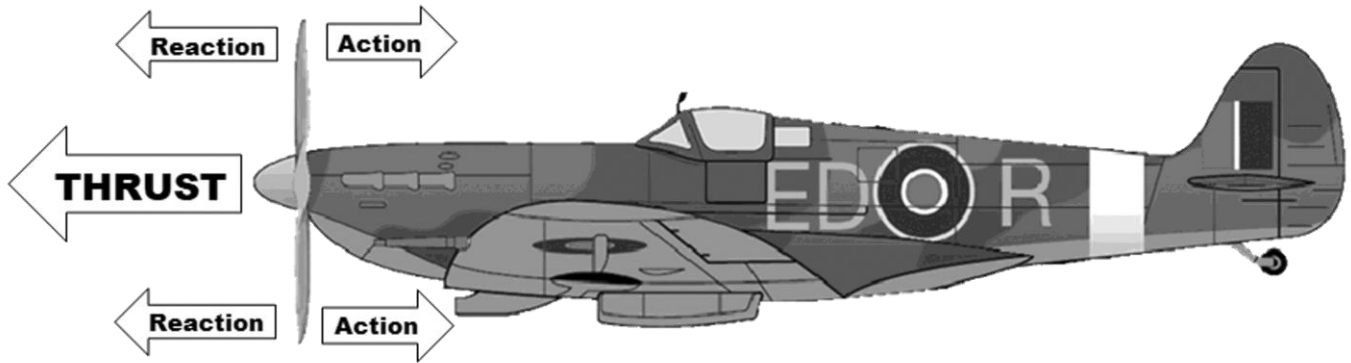
1. _____ 2. _____
3. _____ 4. _____

For the following questions, use the name(s) of the four (4) “Forces of Flight” to fill in the blanks.

2. For an airplane to take-off and fly, it needs to increase _____ so that the wing can produce _____ as air flows over the curved top surface.
3. When an airplane climbs (goes higher) _____ becomes the stronger of the four (4) forces of flight.
4. When an airplane is descending (coming down) to land, both _____ and _____ become stronger than _____ and _____ .
5. Lowering the airplane’s wheels will increase _____ .
6. When the pilot lowers the flaps, it will create even more _____ while providing a little more _____ .
7. If an airplane loses engine power (engine quits) _____ can become the source for _____ to keep air flowing over the wings to produce _____ as the airplane descends safely (glides) back to earth.

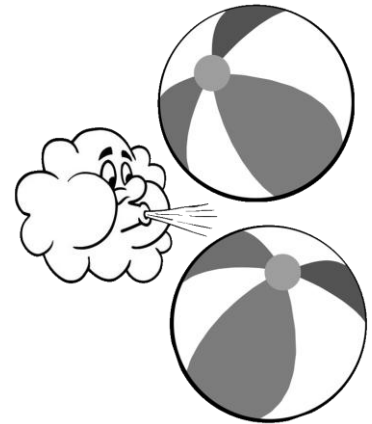
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(Basic Aerodynamics)



For the following statements, choose the correct answer from the box below and enter it in the space provided.

1. The “*Third Law of Motion*” is that “*for every action, there is an equal and opposite reaction*”. This was discovered by _____
2. When air blows between two (2) beach-balls, they will move toward each other instead of flying away from each other. This principle was discovered by some guy named _____



Choose the correct answers to fit in the blanks above: *Donald Trump, Justin Bieber, Sir Isaac Newton, Elvis Presley, Isadore Weinstein, Will Smith, John Wayne, Mr. Bernoulli*

True or False: For the following statements, place a “**T**” (if true) or an “**F**” (if false) in the blank space.

- (1) All airplanes can glide but some glide much better than others. _____
- (2) The distance that an airplane can glide is known as a “Glide Ratio” _____
- (3) At top speed, it would take the CF-18 jet fighter 15 minutes to fly from Greenwood to Halifax _____
- (4) A speed of “Mach 1.8” is nearly three (3) times faster than the speed of sound. _____
- (5) The first powered airplane was built and flown by the Smith brothers in the year 1909. _____
- (6) The pilot of the first powered airplane did not have a seat to sit in. _____
- (7) The “Argus” aircraft set a record by staying in the air for almost a day and a half. _____
- (8) Airplane designers are always looking for ways to increase “thrust” and reduce “drag”. _____