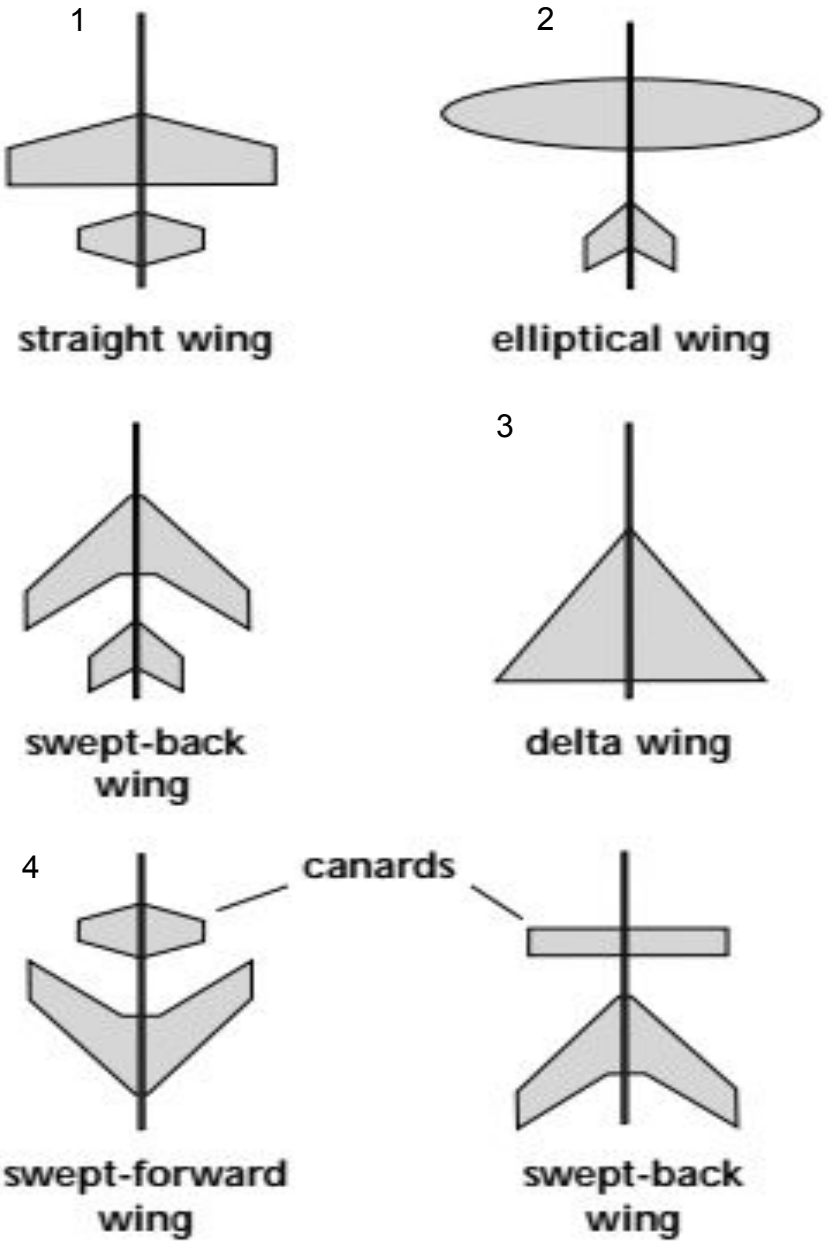
Wing Configuration Reference

About Wing Planforms

A 'planform' is the shape of the wing when seen from above (bird's-eye view). Different planform shapes affect how much lift the wing creates and how much drag it produces. Engineers choose wing shapes based on the aircraft's purpose — speed, fuel efficiency, stability, or maneuverability.



Six Wing Configurations — Reference Guide

1. **Straight**: Extends straight out from the fuselage at a right angle. Simple to build. Good lift at slow speeds. Used on small propeller planes and gliders.	2. **Elliptical:** Curved, oval shape. Excellent aerodynamic efficiency — produces the most lift with the least drag. Difficult to manufacture. Used on WWII Spitfire fighter.
3. **Swept-Back:** Wings angle backward toward the tail. Reduces drag at high speeds. Most common on commercial jets. Less effective at slow speeds.	4. **Delta:** Large triangular shape. Very stable at high speeds and in thin air. Used on supersonic aircraft. Less efficient for slow, fuel-saving flight.
5. **Swept-Forward:** Wings angle forward toward the nose. Increases lift at low speeds; unstable at high speeds. Rare — mainly experimental aircraft	6. **Tapered:** Wider at the root (fuselage) and narrower at the tip. Good balance of lift and efficiency. Common on modern gliders and regional aircraft.