Important Values:

Specific Energy: Total energy per unit mass (i.e. mAh/gram)

Capacity: Measured in milli-amp-hours (i.e. 6000mAh)

C-rate: The rate at which it can discharge the entire battery per hour (1C of a 100 amp-hour battery = 100 amps. 2C = 200 amps, 0.5C = 50 amps)

Voltage: A difference in charge between two points in a circuit (think of it as the water pressure in a pipe). Measured in volts (V)

Current draw/Amperage: The amount of charge passing through a point per unit time. Measured in Amps (A)

Power: A measure of how much energy a propeller can produce. Voltage multiplied by Amperage

Important Considerations:

Size: Can the battery fit in your fuselage?

Weight: How will the battery affect the plane's center of mass?

Endurance: Can the battery last the whole flight?

Useful Equations:

Current Draw (A) = Current Capacity (Ah) * C Value

Power Capacity (Wh) = Current Capacity (Ah) * Voltage (V)

Power (W) = Voltage (V) * Current (A)

Discharge Time (h) = $\frac{Current\ Capacity\ (Ah)}{Amp\ Draw\ (A)}$

Energy Density (Wh/g) = $\frac{Power\ Capacity\ (Wh)}{Weight\ (g)}$