Physics estimates to be learned

- mass of an apple: 200g to 400g
- Number of joules in 1 kWh = $1000W \times 3600s = 3.6 \times 10^6 J$
- Wavelength of red light: 700nm
- Wavelength of green light: 500nm
- Wavelength of violet light: 400nm
- Wavelength of ultraviolet light: 10nm to 400nm
- Pressure due to 10m of water: 10^5 Pa [$\rho gh = (1000)(10)(10)$]
- Speed of sound in air: $300 ms^{-1}$ or $330 ms^{-1}$
- Density of Air: $1.4 kg m^{-3}$
- Density of water: $1000 kgm^{-3}$
- Density of mercury: $13600 kgm^{-3}$
- Mass of a protractor: 20g to 50g
- Volume of an adults head: $2144.7 cm^3$ ($\frac{4}{3}\pi r^3$ where $r = 8cm$)
- Frequency of audible sound: 20Hz to 20000Hz
- Mass of 30cm plastic ruler: 30g to 100g
- Size (diameter) of a nucleus: $10^{-13}m$ to $10^{-15}m$
- Size (diameter) of an atom: $10^{-9}m$ to $10^{-11}m$
- Mass of a person: 70kg to 80kg
- Height of a person: 1.5m
- Walking speed of a person: $1.5 ms^{-1}$
- Speed of car on motorway: $30 ms^{-1}$
- Volume of a can of drink: $300 cm^3$
- Typical current in a domestic appliance: 13A
- Electromotive force of a car battery: 12V

- Average kinetic energy of an athlete during a 100m race : 4000J
- Temperature of a hot oven = 800°C
- Mass of a new pencil = 8g to 25g
- Thickness of a sheet of paper = 0.05mm to 0.1mm
- weight of 1000 cm^3 of water = 8N to 12N (9.81N exact value)
- Mass of a wooden metre rule = 0.05kg to 0.2 kg
- volume of a tennis / cricket ball = 50cm^3 to 300cm^3
- Volume of air in a car tyre = 0.03 m^3
- Chemical energy released by appliance = 1×10^{14} J