

KEY FACTS

- Arrow = direction of ENERGY TRANSFER (not "eats") — from prey TO predator
- Only ~10% of energy transfers to the next trophic level
- Lost as: heat (respiration), movement, undigested material (faeces)
- This limits food chain length to 4-5 organisms
- ★ Pyramid of biomass: always widest at base — decreases at each level

EQUATIONS / FORMULAS

Biomass efficiency ★: $(\text{biomass next level} \div \text{biomass current level}) \times 100$

KEY TERMS

Producer	Organism making food by photosynthesis — base of all food chains
Trophic level	A feeding level in a food chain
Pyramid of biomass	Diagram showing dry mass at each trophic level — always wider at base

■ EXAM TIP: ~10% energy transfers. Three reasons for energy loss: RESPIRATION (heat) + MOVEMENT + FAECES/WASTE. All three needed for full marks.