

Energy Flow

Biology

Why food chains are short, and where the energy goes.

Energy loss between trophic levels.

Level	Is	Energy
Producer	Photosynthetic	100%
Primary consumer	Herbivore	~10%
Secondary consumer	Carnivore	~1%
Tertiary consumer	Top carnivore	~0.1%
Decomposer	Breaks down all levels	

Losses: respiration, heat, undigested material and excretion. Only about 1–2% of incident light is captured in the first place.