

Physical Factors affecting environment

air
 light
 water
 temperature
 acidity or alkalinity
 amount of minerals
 amount of salt

→ amount of rainfall
 → how to measure
 → pH meter
 universal indicator

Environments

rain forest → warm, humid & mineral
 mangrove → mineral (sea) salty.
 deserts (hot/cold) → extreme weather hard for survival (& minerals)

Human activities.

→ micro plastics
 → contamination
 → overfishing
 → food and waste

vs sustainable farming/fishing & lifestyle

adaptive traits

structural adaptations

(physical features)

* look like mg
 * thick layer of fat below its skin

behavioral adaptations

(unique behavior)

* move slowly and gently
 * stay underground



predator-prey

mutualism

help each other (support)

parasitism

harm the host

feet!

food chain

producer
 primary consumer
 secondary consumer
 tertiary consumer

* 90% lost to surrounding

→ breaks down waste & dead bodies into nutrients and minerals.
 * decomposer

current → rate of flow of electric charges
→ ammeter in series (measured by)
→ SI unit (A) e.g. 2.0 A

potential diff (voltage) → amount of energy to ^{move} ~~rise~~
a unit (charge from one point to another)

→ voltmeter in parallel
→ SI unit (V)

resistance → how much electronic component
opposes flow of electric charges
→ SI unit ohm (Ω)

electrical hazards

→ overload
→ damaged
→ exposed wire
} electric shock
fire

safety features
} fuse
(Circuit breaker)

* power (kW)
& energy = power $\times$ time
↓ ↓ ↓
(kWh) (kW) (h)
whole number only.

chemical effect: electrolysis

Heating effect: iron, kettle

magnetic effect: doorbell, transport

* add resistor in series,
resistance $\uparrow$, current $\downarrow$

add resistor in parallel
resistance $\downarrow$, current $\uparrow$.

Organ	Chemical	Physical
Mouth	carbohydrate	biting into smaller pieces chewing
Salivary Gland + Stomach	(no digestive juice released) carbohydrase protease	churning
Small Intestine	all	x
Large Intestine	→ absorb water & minerals	
Rectum	→ stores	
Anus		

digestion stops

respiration which releases energy for cells

carbohydrates → carbohydrate → simple sugar

proteins → protease → amino acid → prepare cells & growth

fats → lipase → fatty acid & glycerol

stores & reserve energy (making fats in the body)

Benefits:

- synthesis of vitamins/minerals
- digesting certain food
- boost immunity
- producing enzymes

Bacteria

↓
Harmful

→ gastric
→ constipation
→ Food poisoning
→ diarrhoea
→ vomiting

} handle food safely