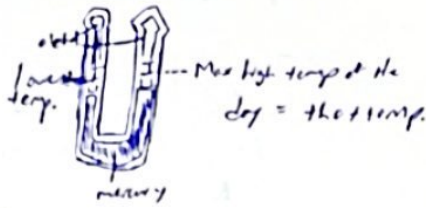


Temperature → The degree of hotness or coldness of the air.

°C ← Six's Thermometer



max. temp
↳ mercury expands
↳ pushes index up.
min. temp
↳ alcohol contracts
↳ drops index down.

Weather vs Climate

Weather

↳ constantly changes - unstable
(within hours - a day)

↳ Atmospheric Conditions
over short period of time

Climate

↳ Average weather pattern
over long period of time (30 years)

↳ very stable, unchanging

average

Mean daily temp.

$$= \frac{\text{max} + \text{min}}{2}$$

monthly → $\frac{\text{mean daily sum}}{\text{days no.}}$

yearly → $\frac{\text{monthly means}}{12}$

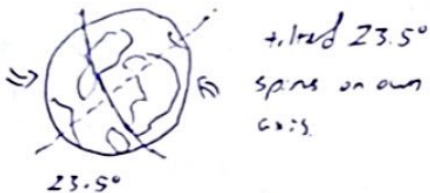
Daily temp. range

↳ max - min

Annual temp. range:

max mean monthly - min mean monthly

Recap: Rotation

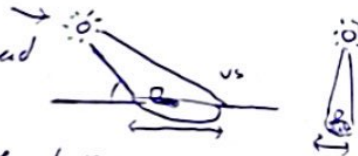


not directly above

larger surface area to spread
solar radiation

lower concentration of radiation

Temp. variation



Example

↳ Why is A hotter than B? (Both midday!)



① Sun is directly over A

↳ Solar radiation spread over smaller surface area

↳ Higher concentration of radiation

⇒ Temperature is higher

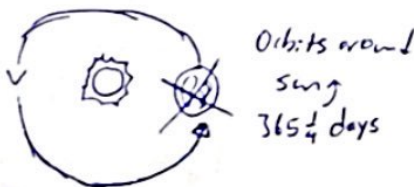
② Sun is not directly over B

↳ Solar radiation spread over larger surface area

↳ Lower concentration of radiation.

⇒ Temperature is lower.

Recap: Revolution



Orbits around
Sun
365 1/4 days

★ Explain how revolution
results in diff. seasons

① Define revolution &
how Earth orbits Sun
& from Rotation

② Dec. → Northern Hem.
faces away from Sun

further from Sun

less sunlight

shorter & cooler

days in

WINTER

③ Dec. Repeat for
Southern Hem.

(but closer to Sun)

Northern Hem. December Southern Hem.



★ As latitude increases temperature
decreases.

Solar Angle → & at which Sun's
rays reach Earth.

equator: high ⇒ more concentrated
(smaller surface area)

low ⇒ less concentration - (larger surface area)

high latitude



Rainfall

↳ refers to the amount of rain that an area receives over a period of time.

[too little → shortage of water
too much → floods

Measuring

Daily → total amt. of rainfall in 24h

Monthly → add up rainfalls from every day in the month

Yearly → add up monthly rainfalls

Rain Gauge



Tropical Climate

Characteristics

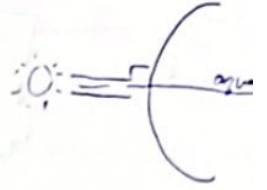
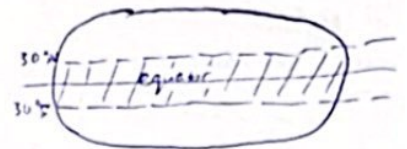
Temperature → High → 20-30°C

↳ Sun's rays are direct = more intense
↳ No seasons

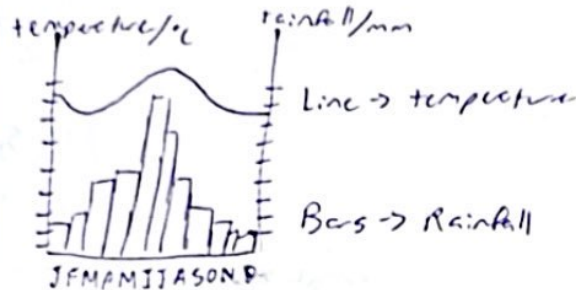
Rainfall → High annual rainfall

(1000-2000 mm)

↳ high temp = high evaporation rates = more rainfalls.



CLIMOGRAPHS



Qn: Describe the climate features & identify climate.

→ Describe Temp & rainfall

Use numbers! Give statistics from the graphs.

Tropical Rainforests (TRF)

① Evergreen

↳ trees stay green throughout year
↳ no shedding leaves fully

② Biodiversity → lots of different species of plants & animals.

③ LAYERS:

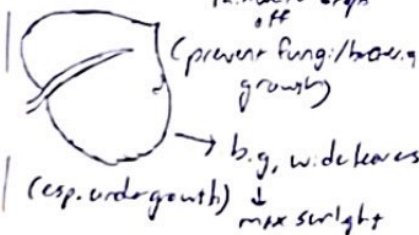
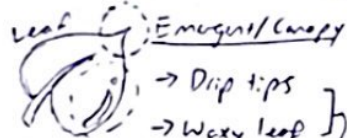


Emergent
≥ 30m

canopy
20-30m

Undergrowth

ADAPTATIONS - survive better link to climate



Emergent

→ smooth bark
→ tall & straight
↳ grow to top first then open branches
→ Thin bark → high temp

