

Class 6 Science / Chapter 11: Nature's Treasures

Curiosity Grade 6 / Notes + Activities ke Jawab / Notes by Abhishek Sir

1. Prakriti ke khazane (Natural Resources)

Hamari zindagi ke liye hawa, paani, mitti, Surya ki roshni, ped-paudhe prakriti se milte hain. In sabko natural resources kehte hain. Inke bina jeevan sambhav nahi. Jo cheezein insaan banata hai (bulb, furniture, solar panel, cycle) wo human-made resources hain.

2. Hawa (Air)

Hawa ke baare me

- Hum oxygen ke bina kuch minute bhi nahi jee sakte, khana-paani ke bina kai din jee sakte hain.
- Hawa gaison ka mixture hai: Nitrogen 78%, Oxygen 21%, Argon, carbon dioxide aur anya gas 1%.
- Percentage = 100 me kitne hisse. Symbol %.
- Chalti hawa = wind. Tez ho to toofan, dheemi ho to breeze.

Firki (paper pinwheel) hawa se ghoomti hai. Windmill bhi isi tarah kaam karta hai: aata chakki, kuyen se paani nikalna, bijli banana. Windmill farms: Muppandal (Tamil Nadu), Jaisalmer Wind Park (Rajasthan), Brahmanvel (Maharashtra).

3. Paani (Water)

Paani ki jaankari

- Paani prithvi ka lagbhag $\frac{2}{3}$ (do tihai) hissa dhake hai.
- Zyadatar paani samundar ka khaara paani hai, jo peene, kheti aur udyog ke kaam ka nahi.
- Freshwater barf ki chadar, nadi, jheel, talab aur bhoomigat paani me; bahut kam hissa hi aasaani se milta hai.
- Paani kam hai, kimti hai, isliye sambhalkar use karo.

Paani bachane ke tareeke

- Nal band rakho, leakage theek karo.
- Paani ko recycle karo.

- Rainwater harvesting (baarish ka paani jama karna).
- Paani ko pradushit na karo (kachra, factory ka waste na daalo).

Prachin tareeke: Baoli / Vav (stepwells) Rajasthan (Bawadi) aur Gujarat (Vav) me. Toorji ka Jhalra, Jodhpur. World Water Day: 22 March.

4. Surya ki urja (Energy from the Sun)

Surya prithvi par urja ka sabse bada source hai. Paudhe uski roshni se apna khana banate hain, janwar paudhe khakar urja paate hain. Gaay ghaas khati hai, ghaas dhoop se ugti hai, isliye gaay ko bhi urja Surya se milti hai (Bhoomi ka statement sahi).

Surya ka use	Example
Garmi (heat)	Kapde sukhana, mirch/aam sukhana, solar cooker, solar water heater
Roshni	Paudhon ka khana banana (photosynthesis)
Bijli	Solar panels (chhat, street light, traffic signal)

Agar Surya kuch din na dikhe: din me bhi artificial roshni chahiye hogi; paudhe khana nahi bana paayenge; thand badhegi; solar panel se bijli nahi banegi.

5. Jungle (Forests)

Forest = bade ilaake jahan ghane paudhe (herbs, shrubs, trees) hain. Jungle janwaron, chidiyon aur keedon ko khana aur ghar dete hain. Jungle ke products: lakdi, phal, shahad, jadi-bootiyan, gond, bans. Insaan ke bade paimane par ped katne se jungle kam ho rahe hain; naya jungle ugne me bahut saal lagte hain.

Jungle bachane ke prayas

- Van Mahotsav: July me ped lagana (hafte bhar).
- Chipko Andolan (1970 ke dashak, Uttarakhand): mahilaon ne pedon se lipatkar unhe katne se bachaya.
- Sacred groves (pavitra van).

Jungle me jadein mitti ko pakad kar baarish se bahne se rokti hain. Girte patte sadkar mitti ko poshan dete hain. Ye prakriti me recycling hai.

6. Mitti, Chattan aur Khanij (Soil, Rocks, Minerals)

Mitti

- Mitti chattan tootne se banti hai (Sooraj, paani aur jeevon ke asar se, hazaron saalon me).
- Isme ret, keede, kenchue (earthworms), mare hue paudhe-janwar ke ansh hote hain.
- Kenchua mitti ko palatkar bhurbhura banata hai.
- Mitti ke tukdon ke beech ki jagah me hawa aur jadon ke liye jagah hoti hai.

Chattanein: granite, sandstone, marble, slate (chhat ke liye), laterite (eent jaisa).
Makaan, mandir, sadak, dam, table top me use hoti hain; purane samay me hathiyaar (hand axes, arrowheads) bane. Khanij (minerals) se chattan bani hain; loha, tamba, aluminium, sona unse nikalte hain. Mobile me bhi lagbhag 12 khanij hote hain (sona, chandi, tamba, cobalt).

7. Fossil Fuels

Fossil fuels

- Petroleum, natural gas, coal = fossil fuels.
- Ye millions of saalon me dabe hue sookshmajeevon aur paudhon se bane.
- Petroleum se petrol, diesel, kerosene milte hain.
- Natural gas cooking aur bijli me; CNG gaadiyon me (saaf fuel). Coal mukhya roop se bijli banane me.
- Jalne par dhuhan aur CO₂ nikalti hai (pradushan).
- Ye seemit matra me hain; khatam ho jaayenge.

Fossil fuels bachaane ke tareeke

- Paas jaana ho to paidal ya cycle.
- Public transport use karo.
- Carpool, electric vehicle, gaadi band rakho (red light par).

8. Renewable aur Non-renewable

	Renewable	Non-renewable
Matlab	Kam samay me dobara ban/bhar jaate hain	Seemit; dobara nahi bante (millions of years)
Examples	Air, water, forest, Surya ki urja	Coal, petroleum, natural gas, minerals, rocks, soil

Trick / Yaad rakhne ka tareeka

• Renewable = RA-W-F-S (Air, Water, Forest, Sun). Non-renewable = fossil + minerals/rocks/soil.

Gandhi ji: "Earth provides enough to satisfy every man's need but not for every man's greed."

9. Activities ke Jawab

Q. Activity 11.1 - Saans rokna

Ans. Hum saans zyada der tak nahi rok paate kyunki sharir ko oxygen chahiye. Dam ghutne jaisa lagta hai. Isliye oxygen jeevan ke liye zaroori hai.

Q. Activity 11.2 - Firki

Ans. Dauda ya phoonk marne par firki ghoomti hai. Hawa (wind) use ghumati hai. Windmill isi tarah chalta hai.

Q. Paani ke kaam (bubbles)

Ans. Peene, pakane, nahane, kapde dhona, saaf-safai, kheti, udyog, bartan dhona, paudhon ko paani dene ke liye.

Q. Activity 11.3 - Paani ki barbaadi (Table 11.1)

Ans. Hand washing - nal khula chhodna; bachao: haath sabun lagate waqt nal band. Kapde dhona - zyada paani; bachao: bucket use, kam baar kulla. Bartan - paani chalta chhodna; bachao: tub me dhoo. Shower - lamba nahana; bachao: bucket se. Cooking - zyada paani se dhona; bachao: sabzi dhoya paani paudhon me. Gardening - galat samay; bachao: subah/sham paani, drip. Brushing - nal chalta chhodna; bachao: mug se kullah.

Q. Paani ko pradushit karne wale kaam

Ans. Kachra, plastic, ghar aur factory ka gandha paani, kheti me rasayan, nadiyon me kapde dhona/murtiyan visarjan. Hum ye kam kar sakte hain.

Q. Activity 11.4 - Mitti ke sample

Ans. Alag jagah ki mitti ka rang, texture alag hoga (kaali, laal, bhoori; reteli ya chikni). Magnifying lens me chhote kan, jadein, keede bhi dikhte hain jo aankh se nahi dikhte. Alag rang alag padarth ke karan.

Q. Activity 11.5 - Vehicles aur fuel (Table 11.3)

Ans. Scooter/bike - petrol; Car - petrol/diesel/CNG; Truck/bus - diesel; Auto - CNG/petrol; Electric rickshaw - bijli; Cycle - mansik urja (koi fuel nahi).

Q. Activity 11.6 - Natural resources (Table 11.4)

Ans. Kapde dhona - paani; Mitti ke khilone banana - mitti; Lakdi jama karna - jungle/ped; Patang banana - ped (bans), kaagaz, hawa; Nashta - paudhon aur janwaron se khana, paani.

10. Let us enhance our learning - Answers

Q. Q1. Jumbled names

Ans. *Nal* = *atwre* = *water* (renewable). *Windmill* = *ndiw* = *wind* (renewable). *Jungle* = *refost* = *forest* (renewable). *Patthar* = *ocrk* = *rock* (non-renewable).

Q. Q2. True/False

Ans. (i) T. (ii) F - machines human-made resources hain. (iii) T. (iv) T.

Q. Q3. Fill in the blanks

Ans. (i) (b) Petrol. (ii) (b) Water.

Q. Q4. Classify

Ans. Non-renewable: coal, natural gas, minerals. Renewable: forests.

Q. Q5. Petroleum non-renewable kyun?

Ans. Ye millions of saal me banta hai aur seemit matra me hai. Ek baar use hone par dobara kam samay me nahi banta.

Q. Q6. Jungle dobara ugana kyun mushkil?

Ans. Ped ugne me bahut saal lagte hain; jungle me hazaron prajatiyan ek dusre par nirbhar; mitti aur janwar chale jaate hain; ek baar mitti beh jaaye to dobara banne me hazaron saal.

Q. Q7. 5 kaam jisme natural resources use hote hain aur use kam karne ke tareeke

Ans. *Nahana* (paani - bucket), *khana pakana* (gas - dhakkan lagakar), *pankha/AC* *chalana* (bijli - zaroorat par), *kaagaz likhna* (ped - dono taraf likho), *school jaana* (petrol - cycle/bus).

Q. Q8. Hawa ki wajah se 4 kaam

Ans. *Saans lena*, *patang udana*, *windmill chalna*, *aag jalna* (oxygen), *kapde sukhana*, *awaaz sunna*, *hawai jahaz udna*.

Q. Q9. Hariyali badhane ke liye

Ans. *Ped lagana* aur *unki dekhbhal*, *Van Mahotsav*, *gamlon* aur *parks* me *paudhe*, *ped katne* se *rokna*, *paudhe gift karna*, *bachon ko ped ka mahatva batana*.

Q. Q10. Cooking ki tasveer (solar cooker)

Ans. (i) *Surya ki urja* (solar energy). (ii) *Fayda*: muft, *pradushan* nahi, *ya fuel ki bachat*.

Nuksaan: sirf *dhoop* me *kaam karta hai* (*baadal* *ya raat* me nahi), *dheere pakata hai*.

Q. Q11. Ped katne se mitti par asar

Ans. *Jadein mitti ko pakad kar rakhti hain*; *ped kat jaane par mitti baarish me beh jaati hai* (soil erosion). *Girte patte nahi milte to poshan bhi nahi milta*. *Mitti upjaau nahi rehti*.

Q. Q12. Hawa ko pradushit karne ke 2 tareeke aur ek upay

Ans. Tareeke: gaadiyon ka dhuana, factory ka dhuana, kachra jalaana, patakhe. Upay: public transport/cycle use karna, ped lagana, electric vehicle.

Q. Q13. Ek hafte dhoop na ho to?

Ans. Solar panel se bijli nahi banegi. Gas stove chalegi (par gas khatam ho sakti hai), windmill chalega agar hawa ho. Paudhe khana nahi banayenge, thand badhegi. Isliye alag-alag urja sources rakhne chahiye.

Q. Q14. Diagram (Natural Resources tree)

Ans. Natural Resources -> Renewable: air, water, forest. Non-renewable: fossil fuels -> petroleum, coal, natural gas. (Natural gas fossil fuel aur non-renewable hai.)

Q. Q15. Ped katna jaayaz hai? (Report)

Ans. Poori tarah nahi. Ped ghar aur udyog ke liye chahiye par bina plan ke katne se mitti, hawa, janwar par bura asar. Hal: jitne kaate utne naye lagao, kaagaz recycle, jungle ko dobara ugne ka samay do.

Q. Q16. School me paani bachane ka plan

Ans. Kadam: leaking nal theek karna; nal par "Paani bachao" board; baarish ka paani jama (rainwater harvesting); paudhon ko subah paani; RO ka waste paani paudhon me; bachon ko jagruk karna. Fayda: paani bachta hai, bhoomigat paani badhta hai.

11. Important Q&A (exam ke liye)

Q. Renewable aur non-renewable me antar (example)

Ans. Renewable: dobara bhar jaate (hawa, paani, jungle). Non-renewable: ek baar khatam to nahi (coal, petroleum).

Q. Fossil fuels kya hain?

Ans. Petroleum, natural gas, coal - dabe jeevon se millions of saalon me bane.

Q. Rainwater harvesting kya hai?

Ans. Baarish ke paani ko jama karke baad me use karna.

Chapter ka Naam (copy-paste)

Nature's Treasures

- Teacher: Abhishek Sir / MERIT SPRING