

CBSE Class 10 Science

NCERT Solution

Science Chapter 16 - Management of Natural Resources

In text Questions

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Question 1:-What changes can you make in your habits to become more environment friendly?

Answer:

- (i) Segregate waste into recyclable and non-recyclable parts.
- (ii) Switch off the lights, fans, television and other electrical appliances when not used.
- (iii) Use energy efficient electrical appliances.
- (iv) Walk for nearby shops instead of using vehicles.
- (v) Reuse paper, plastic and glass bottles.
- (vi) Reuse water from washing machines for cleaning purposes.

Question 2:-What would be the advantages of exploiting resources with short term aims?

Answer:

Overconsumption of resources with short-term interests in mind will give a boost to the economy. However, the increased growth of the economy will be short-lived since the exploitation of resources is not sustainable. Exploiting resources for the sake of short-term goals will be beneficial to the present generations but not for future generations.

Question 3:-How would these advantages differ from the advantages of using a long term perspective in managing our resources?

Answer:

The long-term model of resource consumption enables the conservation of the resources for them to be used by future generations. This will enable the economy to grow over a longer timeframe. It also provides more time for technology to advance and discover new, sustainable energy sources (such as nuclear fusion and fuel cells). All in all, the long-term perspective in managing of resources has significantly greater advantages when compared to the short-term perspective.

Question 4:-Why do you think there should be equitable distribution of resources? What forces would be working against an equitable distribution of our resources?

Answer:

There should be equitable distribution of resources so that all, rich, powerful and poor people get benefit from the development of these resources. Rich, greedy and powerful people could work against an equitable distribution of our resources.

Question 1:-Why should we conserve forest and wild life?

Answer:

We should conserve forest and wildlife because of the following reasons.

1. They help in maintaining the ecological balance at a place.
2. They provide us with useful things like rubber, wood, dyes, gum, resin, oil, fibers, medicines, wax, honey, fruits, seeds, leaves of bidi etc.
3. They purify the air, control flood and prevent soil erosion and maintain its fertility.
4. Forests conserve biodiversity and hereditary resources. Ecological stability gets imbalanced due to damage in diversity.

Question 2:-Suggest some approaches towards the conservation of forests.

Answer:

Some methods for forest conservation are as follow :

1. Only except some trees, there should be ban on cutting of forest. Forests stop soil erosion.
2. Forests should be saved from fires. Many forests get destroyed due to fires.
3. Forests should be saved from pests and insects. Pesticides, insecticides should be sprayed in forests.
4. Overgrazing should be prohibited.
5. National rules and laws should be strictly enforced.

Question 1:-Find out about the traditional systems of water harvesting management in your region.

Answer:

Many of us live in cities, where water is supplied by the municipal authorities. In the houses, systems of rainwater harvesting are installed which collect the water running off and channel it into a special pit created for the purpose. This helps to recharge ground water.

Efforts are being made to collect run off rain water in soak pits. This water enriches underground water and can cause rise in water table.

Run off water from roof tops can also be collected in trenches, specially made to enrich underground water table.

Question 2:-Compare the above systems with the probable systems in hilly/mountainous areas or plains or plateau regions.

Answer:

Drinking water system in hilly areas :

- Kuhls were a traditional irrigation system in hilly areas such as Himachal Pradesh. In this system, the water flowing through falls, comes to villages located at lower regions through small human made drains.
- In Meghalaya, the water is brought down to the lower areas of hills through bamboo drains.

Drinking water system in plains:

- Jhalaras were made in Rajasthan and Gujarat, essentially meant for community use and for religious rites.
- In some places bawaries etc. were made to supply water.

Drinking water system in plateau regions:

- Bandharas are check dams or diversion which were built across rivers. Such a traditional system was found in Maharashtra.
- In some regions, small pits were dug to collect water.

Question 3:-Find out the source of water in your regions/locality. Is water from this source available to all people living in that area?

Answer:

The main source of water in our region (Delhi) is river Yamuna, upper Ganga canal, Bhakra storage and ground water. Water after being treated is supplied to the residents through a system of water pipes.

The water is available to all the people living in the area.

(Note : Students should write about the locality (region around them.)

NCERT Solutions for Class 10 Science

Chapter 16

Textbook Chapter End Questions

Question 1:-What changes would you suggest in your home in order to be environment friendly?

Answer:

We would suggest following changes in our home to make it environment friendly.

1. Separate wastes into recyclable and non-recyclable.
2. Use electricity judiciously.
3. Follow three R's (Reduce, Recycle and Reuse).
4. Eat as much as you require but do not waste food.
5. Use water judiciously.
6. Reuse newspapers and use less plastic.
7. Have more windows in the house for natural light.
8. T.V., fans, lights etc should be turned off while going outside the room. Less use of heaters. Try wearing sweaters instead.
9. Public transport should be used instead of private vehicles.

Question 2:-Can you suggest some changes in your school which would make it environment friendly?

Answer:

Following changes can be made in schools to make it environment friendly.

1. Plant enough trees in the school.

2. Leaking taps should be repaired so that water is not wasted.
3. Bring food in reusable boxes, not in plastic bags or in aluminum foil.
4. Teachers can educate students about environmental conservation.
5. There should be more windows in school for natural light.

Question 3:-We saw in this chapter that there are four main stakeholders when it comes to forests and wild life. Which among these should have the authority to decide the management of forest produce? Why do you think so?

Answer:

The people living in and around the forests and the forest department of The Government could be given the authority to manage the forests because the forest department of the Government has sufficient power and resources that can manage the forest resources well. The people living in and around forests know about the forest products and use them only according to their needs. In addition to this, they would not damage the forests and use forests sustainably.

Question 4:-How can you as an individual contribute or make a difference to the management of (a) forests and wild life (b) water resources and (c) and petroleum ?

Answer:

(a) As an individual we can contribute the following to conserve forest and wildlife.

1. Trees should not be cut. If trees needed to be cut, then new trees should be planted in their place.
2. Trees should be saved from fire.
3. Forest animals should be protected and their illegal hunting should be prohibited. Sustainable Management of Natural Resources

(b) As an individual we can contribute the following in the management of water resources.

1. Tap should be closed when water is not in use while brushing, shaving, washing hands.
2. Protect water sources from getting polluted.
3. If there is any leak in water distribution system, then repair it or inform concerned agency.

(c) As an individual we can contribute the following in the management of coal and petroleum.

1. Public transport should be used instead of private vehicle. It saves petrol.
2. Do not use electricity in vain.
3. Switch off the vehicle at the red light if you have to wait for too long.
4. Wear extra sweater instead of using heaters.
5. Use LPG or CNG.

Question 5:-What can you as an individual do to reduce your consumption of the various natural resources?

Answer:

We can do the following as an individual to reduce our consumption of the various natural resources.

1. Follow the principle of three R's i.e., Reduce, Recycle and Reuse.
2. Plastic bags should be reused for the storage of food and small things.

3. Food should be taken as per requirement.
4. Reusable bottles should be used to store water every day.
5. The devices based on renewable sources of energy like solar cell, solar heater, etc. should be used.

Question 6:-List five things you have done over the last one week to

(a) conserve our natural resources.

(b) Increase the pressure on our natural resources.

Answer:

(a) To conserve our natural resources :

- Saved electricity by switching off the lights, fans, television and other electrical appliances when not needed.
- Used energy efficient electrical appliances. This is done by using compact fluorescent lamps (CFL) and fluorescent tube lights instead of traditional filament type electric bulbs.
- Used public transport for school instead of parent's car.
- Took bath with less water than before and did not waste water.
- Took part in community awareness meetings regarding environmental conservation.

(b) To increase the pressure on natural resources:

- Used more paper than required for printing on my computer.
- Kept the fan on even when I was not in the room.
- Wasted food.
- Burnt crackers.
- Wasted petrol by unnecessarily starting the motorbike.

Question 7:-On the basis of the issues raised in this chapter, what changes would you incorporate in your life-style in a move towards sustainable use of our resources?

Answer:

We would bring following changes in our lifestyle so that sustainable use of our natural resources can be encouraged.

1. We should limit our personal and collective needs beyond laws, rules and regulation so that the benefit of development can be made available to all and future generations.
2. Close the tap when not in use.
3. Turn off the lights, fans etc. in home, school or office when not in use.
4. Make least use of polythene bags and these should not be thrown in garbage.