

# Ensures Distinction in Science Grade 6

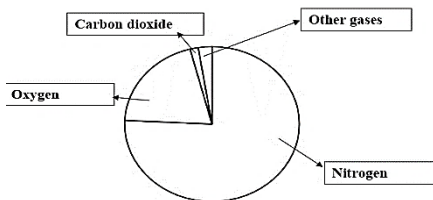
## Page 1 – Ex 1.1

- 2 From the soil.
- 3 From the sand.
- 4 Air dissolved in water.
- 5 From the atmosphere.
- 6 From oxygen tanks.
- 7 From the atmosphere.
8. From oxygen tanks.
- 9 From the atmosphere.
- 10 From the atmosphere.

## Ex 1.2

1. carbon dioxide
2. Water vapour
3. photosynthesis
4. nitrogen
5. animals
6. oxygen

## Ex.1.3



- (i) Oxygen is used by all living things for breathing.
  - (ii) Oxygen is used during burning.
  - (iii) Oxygen is used to treat sick people.
  - (iv) Oxygen is used as rocket fuel.
- (i) Carbon dioxide is used by plants to make their food.
  - (ii) Carbon dioxide is used in fire extinguishers.
  - (iii) Carbon dioxide is used to make fizzy drinks.

## Ex 1.4

- (i) Oxygen (ii) Food
- (i) To stay alive.
- (ii) To help us do our daily activities.
- Because while doing physical activities our heartbeat increases and therefore we need more oxygen.

## Page 5 – Ex 1.5

- The amount of oxygen will decrease and the rat will suffocate and die.
- All living things need oxygen to stay alive.

## Ex 1.6

- Because our nose contains hairs that filter the air we breathe.
- (i) During swimming.
- (ii) If our nose is blocked during a cold/fever.
- As plants take in oxygen day and night, the amount of oxygen in the bedroom will decrease and this will be dangerous to the person.
- Because we will not get a good supply of oxygen for breathing.

## Page 6 – Ex 1.7

- Carbon dioxide / Water vapour
- Because in case of lack of oxygen, they will suffocate and die.

## Page 7 – Ex 1.8

- Oxygen
- Carbon dioxide
- (i) Candle A.
- (ii) Because the candle has used up the oxygen in the jar. **OR**  
Because the presence of carbon dioxide in the jar helps to put out the flame.

## Page 8 - Ex 1.9

- Because the burning oil will float on water and the fire will spread over.
- Cover the pan with a metal lid.

## Ex 1.10

- We must allow a good flow of air in the kitchen.
- Carbon dioxide.
- Because the gas water heater produced carbon dioxide and a large amount of carbon dioxide caused death.

## Page 10 – Ex 1.11

- Air exerts a pressure of 10 tonnes on every human being.
- The air in our body prevents us from getting crushed by air in the atmosphere.
- (i) In a syringe (ii) In a vacuum cleaner
- (iii) While drinking juice using a straw.
- (iv) To inflate a tyre or ball.

## Page 11 – Ex 1.12

- No
- Because the air pressure outside is exerting a higher pressure on the cardboard.

## Page 12 – Ex 1.13

- He is inflating a balloon.
- At A.
- The balloon will burst.

## Ex 1.14

- A barometer.
- The air pressure outside forces the suction cup to stick on a window.
- Because in outer space there is no or less air pressure to force the juice inside the straw.

## Page 13 – Ex 1.15

- Cover the bin with a lid.
- Use compost instead of fertilisers and pesticides.
- Vehicles must have regular servicing.
- Stone crushers must be located far from residential areas. / Spray water while crushing stones.
- The chimneys of factories must have air filters.
- Make compost with dry leaves.

## Page 14 – Ex 1.16

- (i) Skin (ii) Eyes (iii) Lungs
- (i) Smoke from vehicles.
- (ii) Smoke from factories.
- (iii) Dust from stone crushers.
- We can use clean sources of energy.
- They must wear face masks.
- More people can travel in metro instead of using their own cars.  
The metro is less polluting than vehicles using petrol or diesel.

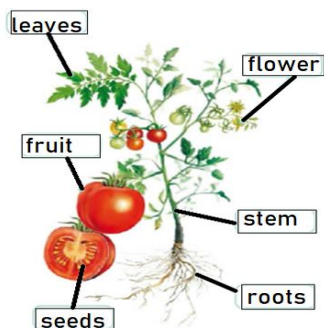
## Page 15 – Ex 1.17

- India.
- Thousands of tonnes of toxic gases from a large pesticide manufacturing plant were released accidentally in the air.
- Some 3000 people died and thousands of people are still suffering from eye, skin, lung infection and deformation.

## Page 16 – Ex 1.18

- A – 7 seconds
- Because Candle C is getting less oxygen than Candles A and B.
- Because Candle D is getting a good supply of oxygen.

**Page 18 – Ex 2.1**



**Ex 2.2**

- a) holds, soil. water, minerals
- b) branches, leaves, fruits and flowers, water and minerals
- c) food, pores. d) fruits, pollination.
- e) seeds. f) germinate, store

**Page 19 – Ex 2.3**

- 1. The sepal.
- 2. Because petals are brightly coloured.
- 3. Pollination is the process whereby pollinators carry pollen from one flower to another.
- 4. Bees / Butterfly 5. The male part. 6. The female part.

**Page 20 – Ex 2.4**

During **photosynthesis** the leaves take in **water** and **minerals** from the soil, **carbon dioxide** from the air and **chlorophyll** from the leaves in the presence of **sunlight** to manufacture its **food**.

**Ex 2.5**

- (a) (i) water and minerals (ii) sunlight  
(iii) carbon dioxide (iv) chlorophyll
- 2. It absorbs sunlight for the leaves.
- 3. (i) Food for the plant. (ii) Oxygen.
- 4. During photosynthesis, plants take in carbon dioxide and give out oxygen but during respiration, plants take in oxygen and give out carbon dioxide.

**Page 21 – Ex 2.6**

- (a) Respiration.
- (b) Human beings and animals would not get oxygen to breathe.
- (c) The amount of carbon dioxide will increase and this will lead to greenhouse effect.
- (d) (i) Plants reproduce by producing seeds / by cuttings whereas other living things reproduce by giving birth / laying eggs.  
(ii) Only parts of a plant move whereas other living things can move from one place to another by themselves.

**Page 22 – Ex 2.7**

Plants provide human beings and animals with **food, shelter and oxygen**.  
 Plants provide wood/ timber **to make furniture**.  
 Plants are used as herbs and spices **to add flavor to food**.  
 Plants provide fibers such as **cotton and vacoas to make things**.  
 Plants provide wood pulp **to make paper**.  
 Some plants such as lemon grass and ayapana **are used to make medicine**.  
 Plants are used to make drink **such as tea, coffee**.  
 Plants such as aloe vera and turmeric **are used to make cosmetic products**.  
 Flowering plants such as rose, lavender and jasmine **are used to make perfumes**.  
 Plants beautify the environment **and give us shade**.

**Page 24 – Ex 2.8**

- 1. Soil erosion is the washing away of top fertile soil.

- 2. (i) Heavy rainfall (ii) Strong winds
- 3. (i) Deforestation (ii) Forest fires  
(iii) Overgrazing of animals
- 4. Only bare rocks are left and the soil is less fertile.
- 5. Plants such as vetivers, muguet and petit **bambou** are planted along sugarcane fields to protect the fertile soil from erosion.

**Ex 2.9**

- 1. Root take water from the soil. 2. Leaf carries out photosynthesis.
- 3. Fruit holds the seeds. 4. Stem holds the upper part of the plant.
- 5. Flower attracts insects.

**Page 25 – Ex 2.10**

- 1. Plants provide food / shelter / oxygen to animals.
- 2. Plants provide food / shelter / oxygen to humans.

**Ex 2.11**

- 1. 1. Oxygen 2. Carbon dioxide 3. Water/minerals
- 2. Photosynthesis.
- 3. Because oxygen is produced by this process.
- 4. Because plants will release carbon dioxide at night and too much carbon dioxide is harmful to health.

**Page 26 – Ex 3.1**

Herbivorous/ Carnivorous/ Granivorous/ Omnivorous/ Insectivorous

**Page 27 – Ex 3.2**

Hairs/fur	Feathers	Scales	Exoskeletons
<b>bat</b>	<b>duck</b>	<b>crocodile</b>	<b>grasshopper</b>
<b>horse</b>	<b>pigeon</b>	<b>lizard</b>	<b>bee</b>
<b>fox</b>	<b>hen</b>	<b>snake</b>	<b>scorpion</b>
<b>cat</b>			

**Ex 3.3**

Animals	Movement	Feeding	Reproduction	Body covering
Dog	walks / runs	fish / meat	gives birth	hairs
Crocodile	swims / crawls	meat	lays eggs	scales
Owl	flies / walks	insects	lays eggs	feathers
Fish	swims	algae	lays eggs	scales
Deer	walks / runs	grass / leaves	gives birth	hairs
Whale	swims	fish	gives birth	hairs
Spider	crawls	insects	lays eggs	exoskeletons

**Page 28 – Ex 3.4**

- 1. birth 2. milk 3. hairs 4. whale / dolphin 5. bat
- 6. lion / rhinoceros / elephant 7. platypus

**Pg 29 : Fish**

- 1. aquatic 2. fins / tail 3. gills / air 4. scales 5. egg

**Pg 29 : Insects**

- 1. six 2. exoskeletons 3. wings / antennae 4. ants

**Pg 30 : Reptiles**

- 1. scales 2. eggs 3. crawling / creeping

**Birds**

1. legs / beak    2. feathers    3. eggs    4. wings / fly

**Page 31 – Ex 3.5**

- (a) Carbohydrates and fats.  
 (b)(i) To do our daily activities                      (ii) To keep our body warm.  
 (c) Bread, cereals, and rice.

**Page 32 – Ex 3.6**

- (a) Proteins.    (b) To grow.    (c) Pulses.

**Ex 3.7**

- (a) Vitamins and minerals.                      (b) To stay healthy.

**pg 33 Ex 1.8**

Food for Energy	Food for Growth	Food for Health
rice	eggs	apple
pasta	meat	broccoli juice
potato	peanuts	tomato
cereals		radish

**Page 34 – Ex 3.9**

1. cereals / milk / apple                      2. rice / pulses / carrots  
 3. rice or bread / fish / cabbage                      4. rice / soya beans / cauliflower

**Ex 3.10**

Andy – energy ;    Manda – health ;    Sarah – energy / growth

**Page 35 – Ex 3.11**

- (a) (i) We must also drink a lot of water.  
 (ii) We must do regular physical exercises.  
 (iii) We must avoid oily / sugary foods and fizzy drinks.  
 (b) (i) We may get cholesterol.    (ii) We may get heart problems.  
 (c) Diabetes.

**Page 36 – Ex 3.12**

Milk teeth /    Permanent teeth

- (a) 20 teeth    (b) 32 teeth    (c) No new tooth will grow.

**Page 37 – Ex 3.13**

1. A: incisors    B: canines    C: pre molars    D: molars  
 2. (i) A - incisors  
 (ii) C and D – pre molars and molars  
 (iii) B – canines

**Ex 3.14**

1. We must brush our teeth after each meal.  
 2. We must eat less sweets and chocolates.  
 3. We need to visit the dentist regularly.  
 4. We must use a soft toothbrush to brush our teeth.  
 5. We must replace our toothbrush every three months.

**Page 38 – Ex 3.15**

- (a) They all have wings. / They all can fly.  
 (b) The bat is a mammal but the duck and peacock are birds. /  
 They bat reproduces by giving birth to young ones but the duck and peacock reproduce by laying eggs.

**Ex 3.16**

- (a) Pachycephalosaurus /    Tyrannosaurus-Rex  
 (b) The teeth of the Pachycephalosaurus are smaller than those of the Tyrannosaurus-Rex.    **OR**  
 The Tyrannosaurus-Rex has a larger mouth/jaws to open its mouth to capture its prey/ the Pachycephalosaurus has a smaller mouth/jaws

(c) They reproduce by laying eggs.    **OR**

They are cold blooded animals.    **OR**

Their bodies are covered with scales.

**Page 39 – Ex 3.17**

Carnivores	Herbivores	Omnivores
Hawk	Goat	Bear
Crocodile	Snail	Robin

**Page 40 – Ex 4.1**

1. wood                      2. impermeable    3. sawmill  
 4. paper                      5. furniture    6. flooring

**Page 42 – Ex 4.2**

1. Cotton is collected from the pods of cotton plants.  
 2. It absorbs water and sweat. / It is soft and cheap. /  
 It is light and comfortable to wear. /  
 Cotton garments can be washed easily. /  
 It is breathable and allows air to pass through it.  
 3. Because cotton absorbs water easily.

**Page 43 – Ex 4.3**

1. Latex  
 2. Because rubber is a good insulator.  
 3. Because rubber is a shock absorbing and tough material.  
 4. It is waterproof. / It is durable.

**Page 44 – Ex 4.4**

1. silk                      2. Bombyx                      3. thread  
 4. expensive    5. comfortable                      6. satin

**Ex 4.5**

1. (i) Dress    (ii) scarf    (iii) tie  
 2. Because cotton clothes are cheaper than silk clothes.

**Page 45 – Ex 4.6**

1. Wool is obtained from animals such as sheep, Angora rabbit and woolly goat.  
 2. shearing  
 3. (a) In winter    (b) Because woollen clothes keep our body warm.

**Page 46 – Ex 4.7**

1. leather                      2. goats / crocodiles / snakes / bulls / camel  
 3. It is waterproof.                      4. drums / belts / sofa / hats

**Page 48 – Ex 4.8**

1. soft    2. malleable    3. expensive    4. dentistry    5. decorative

**Ex 4.9**

1. Gold is extracted from ores obtained from the earth.  
 2. It does not rust. / It does not react with air.  
 3. Someone might steal it.

**Page 49 – Ex 4.10**

1. Because it is a hard and light material.  
 2. kitchen utensils / doors / car bodies  
 3. Aluminium is a good conductor of heat. / It does not rust.  
 4. It is good conductor of electricity.  
 5. Aluminium is more durable and stronger than wood.  
 6. It is a good conductor of electricity.

**Page 50. – Ex 4.11**

1. To prevent it from rusting.  
 2. By galvanising. / By greasing  
 3. (i) Red orange brown colour.  
 (ii) No. Because the layer of oil prevents the nail from rusting.

No. Because the layer of oil prevents air from rusting the nail.

**Page 52 – Ex 4.12**

- Plastic is impermeable.
- Plastic is impermeable. It is durable and light.  
/ It does not rust. / It is cheaper than metals.
- Because plastic bags take many years to decompose.
- Plastic objects are cheaper than metal objects.
- (a) Nylon clothes are cheaper than cotton clothes. /  
Nylon clothes can be easily washed, dry quickly and retain their shapes.  
(b) Cotton clothes absorb sweat better than nylon clothes.  
/ Cotton clothes are more comfortable to wear rather than nylon \ clothes.

**Page 54 – Ex 4.13**

- silica sand
- impermeable / transparent
- recycled
- Glass Gallery
- fragile

**Page 55 – Ex 4.14**

- Steel is obtained by mixing molten iron and carbon.
- Steel is manufactured in a furnace.
- Because steel is stronger than iron.
- (a) Steel rusts when exposed to air and water.  
(b) To prevent steel from rusting, steel objects can be painted, galvanised and greased

**Ex 4.16**

Material	Origin of each material		
	Plant	Animal	Earth
Gold			✓
Rubber	✓		
Leather		✓	
Iron			✓
Cotton	✓		
Aluminium			✓
Silk		✓	

**Page 56 – Ex 4.15**

Objects	Material used to make the object	Why is this material used?
aeroplane	aluminium	It is light.
knife	stainless steel	It does not rust.
car tyre	rubber	It absorbs shock
jacket	leather	It does not tear easily.
shirt	cotton	It absorbs sweat.
jewellery	gold	It does not rust.

**Ex 4.17**

- (a) Rubber (b) Leather  
(c)(i) Aluminium (ii) It is light and does not rust.

**Page 57 – Ex 4.18**

- (a) Glass. / Transparent plastic. (b) It is transparent.
- (a) Plastic (b) It is light. / It is waterproof.

**UNIT 5 – Energy**

**Page 60 – Ex 5.1**

- Energy is the ability to do work, to make things move and to cause changes.

- From the food they eat.
- To do their daily activities. To keep their body warm.
- To grow. / To make their food.
- Chemical energy.

**Ex 5.2**

Name of appliance	Form of energy at the input	Forms of energy at the output
Table lamp	Electrical energy	Light energy
Iron	Electrical energy	Heat energy
Battery operated radio	Chemical energy	Sound energy
Oven	Electrical energy	Heat energy Light energy
Computer	Electrical energy	Heat energy Light energy Sound energy
Moving bus	Chemical energy	Movement energy Sound energy Light energy
Running tiger	Chemical energy	Movement Energy Heat energy

**Page 61 – Ex 5.3**

- (a) petrol (b) oxygen (c) energy (d) coal

**Page 63 – Ex 5.4**

- Fuel → boiling water → steam → turbine → generator → electricity
- Coal / Bagasse / Gas / Heavy oil
- Madagascar
- (a) Bagasse (b) Terra – Belle Vue
- St Louis Thermal Power Station. / Fort Victoria Thermal Power Station. / Centrale de Nicolay Thermal Power Station. / Fort George Thermal Power Station.

6.

Input	Turbines	Electrical Wires	Output
Heat energy	Movement energy	Electrical energy	Light and heat energy Movement energy Sound energy

- Electricity can be produced all year round.
- (i) It causes pollution. /  
(ii) It emits carbon dioxide and causes global warming.
- Aluminium is a good conductor of electricity. /  
Aluminium is light and be used for long distance cabling.
- To wash clothes in a washing machine. /  
To cook rice in a rice cooker. / To watch television.

**Page 65 – Ex 5.5**

- In a hydro power station.
- Force of falling water → turbine → generator → electricity.
- Midlands / La Ferme / Le Val / Ferney
- Through big pipes.
- To get regular supply of water to turn the turbines.
- 6.

Input	Turbines	Generator	Output
Movement energy	Movement energy	Movement energy	Electrical energy

- It does not cause pollution. / It uses a renewable source of energy.

8. Electricity will not be produced during droughts. /  
If the dam is damaged, the surrounding areas will be damaged.

**Page 67 – Ex 5.6**

- From the sun.
- Heat energy. / Light energy.
- Light energy.
- Solar panels contain solar cells.
- (a) On the roof of houses, offices or buildings.  
(b) To absorb maximum sunlight.
- To save foreign currency. / To reduce pollution.  
It does not cause pollution. /  
It is cost effective and requires little maintenance.
- No electricity is produced at night. /  
It costs a lot of money to install solar panels. /  
As the solar panels are set in a fixed position, energy production is reduced at sunrise and sunset.
- (a)



(b)

From the sun	In the cells	In the batteries	In the electric wires	In the bulb of the lamp
Light energy	Electrical energy	Chemical energy	Electrical energy	Light energy

- The MCB building at Ebene.
- To iron clothes. / To boil water in a kettle. /  
To bake cake in an oven. / To heat food in a microwave.

**Page 69 – Ex 5.7**

- Renewable sources of energy can be used over and over again.
- Solar energy / Wind energy / Bio energy / Wave energy / Hydroelectricity
- Renewable sources of energy can be used again and again. /  
They can be naturally replenished.
- Bagasse.
- Non-renewable sources of energy cannot be used over and over again and will eventually run out one day.
- Crude oil / Natural gas / Petroleum / Coal
- Non-renewable sources of energy to produce electricity cause pollution compared to renewable sources of energy.
- Because burning of charcoal to produce energy causes pollution.

**Page 71 – Ex 5.8**

- charcoal
- Petrol
- bagasse
- electricity
- wind

**Ex 5.9**

- Wind energy.
- (a/b) Raj – if agree – When trees are cut down, the forest ecosystem is damaged / animals lose their habitats.  
Raj – if disagree – Cutting down of only a few trees will not cause deforestation. / We can replant trees.  
Fani – if agree – The turbines use a clean source of energy and will not cause pollution.  
Fani – if disagree – To build the turbines, trees have been cut down.
- (c) It is a clean source of energy. /  
It does not cause pollution. / It is free of cost.
- (d) Wind turbines cause noise pollution. /  
Trees/wind breakers need to be cleared to install wind turbines.

**Page 73 – Ex 5.10**

- The use of heat from the Earth to generate energy is known as geothermal energy.
- For cooking, washing and bathing.
- It is a clean source of energy. / It is a renewable source of energy.
- It is costly to build geothermal power plants.

**Page 74 – Ex 5.11**

- From the sun.
- Chemical energy.
- It is a renewable source of energy. /  
It reduces wastes in the environment. /  
It reduces carbon dioxide in the atmosphere.
- It produces methane which is a greenhouse gas.

**Page 76 – Ex 6.1**

- eight
- habitable
- sun
- revolves
- Jupiter
- moon
- Earth / Sun / Moon

**Page 78 – Ex 6.2**

- (ii) C

**Ex 6.3**

- The rotation of the Earth on its axis causes day and night.
- 24 hours / 1 day
- There won't be day and night in certain places/ countries.
- 28 days
- The different position and shapes of the Moon depend on its position and relation to the Sun and Earth.
- Because the moon and the Earth have different orbits.
- Because there is no sunlight at night to heat the Earth's surface.
- 365 ¼ days.
- The complete rotation of the earth around the sun causes a year.
- Because every four years ( $\frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4} = 1$ ), one whole day is added to the calendar in the month of February.

**Page 80 – Ex 6.4**

- Water, air and soil are present on planet Earth. /  
It is neither too hot nor cold on Earth. /  
It is just at the right distance from the sun.
- To get food. / To get oxygen.
- They carry out pollination for the plants.
- Worms provide nutrients to plants. /  
They help to increase the amount of air and water that gets into the soil.
- Plants provide food to animals. / Plants provide oxygen to animals.
- 

PLACE	PLANTS	ANIMALS
Lake	water lily	fish / eel
Forest	trees	deer
Soil	roots of plants	ants
Desert	cactus	snake / scorpion
Cave	ferns	bats
Mountain	shrubs	birds

7.

Type of pollution	Harmful effects on animals	Harmful effects on plants
Air pollution	Animals may die.	Plants do not grow well. / Block pores of plants/ leaves.

Water pollution	<b>Aquatic animals may die.</b>	<b>Aquatic plants are affected. / They do not grow well or may die.</b>
Land pollution	<b>Causes a bad smell and causes respiratory problems.</b>	<b>Plants do not grow well.</b>

8.

Reduce water pollution	<b>Do not wash clothes in rivers. Do not throw wastes in rivers.</b>
Reduce air pollution	<b>Factories must use air filters to clean up smoke. Vehicles must have regular servicing.</b>
Reduce land pollution	<b>Legal actions must be taken to prevent dumping. Make bins available everywhere to prevent dumping / littering.</b>
Preserving our rivers, lakes and seas	<b>Do not throw wastes or dead bodies of animals. Sensitize the population about the importance of preserving our rivers, lakes and seas.</b>

**Page 84 – Ex 6.5**

- Global warming is the gradual increase in the average temperature of the Earth's atmosphere and oceans.
- Burning of fossil fuels. / Deforestation. / Certain agricultural practices release greenhouse gases – methane.
- Icebergs / glaciers are melting causing a rise in sea level.
- Flash floods / Torrential rains / Droughts / Forest fires / Intense heat waves.
- The burning of fossil fuels releases greenhouses gases responsible for global warming.
- Use renewable sources of energy. / Save energy at home. / Use dry leaves to make compost.
- Switch off lights when no one is in the room.
- Recycle waste materials such as plastic, paper, glass and metal.
- 

Waste materials	Recycled into
Empty tin cans	<b>artifacts</b>
Used paper	<b>envelopes / notebooks</b>
Empty plastic bottles	<b>plastic baskets / plastic flowers</b>
Used glass bottles	<b>mirrors / decorative vases</b>

- Waste from animals is known as manure.
- Food wastes and garden wastes are known as compost.
- Manure and compost are used to enrich the soil / fertilizers.
- Because they contain poisonous substances.
- At the Mauritius Telecom offices.
- Switch off the lights when no one is in the room. Use rain water to wash cars instead of tap water. / Switch off the TV when no one is watching. Walk short distances rather than using cars.

**Page 88 – Ex 7.1**

- An ecosystem is an environment where living and non-living things are present.
- 

Terrestrial Ecosystem	Freshwater Ecosystem	Marine Ecosystem
<b>forests</b>	<b>lakes</b>	<b>lagoons</b>
<b>mountains</b>	<b>rivers</b>	<b>oceans</b>
<b>grasslands</b>		<b>coral reefs</b>
<b>deserts</b>		

**Page 89 – Ex 7.2**

Living Things	Non-Living Things
<b>deer</b>	<b>clouds</b>
<b>bird</b>	<b>water</b>
<b>fish</b>	<b>rainbow</b>
<b>dragonfly</b>	<b>sun</b>
<b>frog</b>	<b>log</b>

**Ex 7.3**

- (b) lion → zebra → grass  
The lion feeds on zebra. The zebra feeds on grass.
- (c) plant → sun / water  
The plant depends on the sun and water for producing its food.
- (d) children → vegetable / water  
The children depend on vegetables and water for living.
- (e) Because all living things depend on water for survival. / Without water life would not exist.

**Page 92 – Ex 7.4**

- Forests are the habitats of plants and animals. / Forests help to maintain the composition of air by producing oxygen and absorbing carbon dioxide in the atmosphere. / Forests provide food to animals. / They store rain water. / The roots of trees in forests bind the soil and prevent soil erosion.
- They absorb excess carbon dioxide in the atmosphere and produce oxygen.
- 

Threats to forests	Measures to reduce threats to forests
Forest fires	<b>Laws must be passed to prevent forest fires.</b>
Clearing of land for agriculture	<b>High yielding crops must be planted and the clearing of forests must be avoided.</b>
Clearing of forest for urban development	<b>Proper planning must be done so as to avoid clearing of forests.</b>
Acid rain due to air pollution	<b>Factories must have air filters to reduce harmful gases in the atmosphere.</b>
Infrastructural development	<b>Infrastructural development must be done in areas where the land is less fertile.</b>

- For infrastructural development. / For agricultural purposes. / To build new houses.
- Endemic plants will disappear. / Habitats of animals and plants will be destroyed.

**Page 94 – Ex 7.5**

- (a) Animals died and plants were destroyed. / Animals and plants lost their habitats.
- (b) There was an increase in carbon dioxide in the atmosphere. / The amount of oxygen decreased during these forest fires.





**Page 95 – Ex 7.6**

- (a) Because there were no trees to bind the soil. / There were no water drainage to evacuate rain water.
- (b) Proper planning should have been done before constructing the link road. /

**Ex 7.7**

- (a) South America
- (b) Frequent forest fires. /  
Cutting down of trees for building houses/roads.
- (c) Laws have been passed to protect forests. /  
There is proper planning for urbanisation to avoid clearing forests.

**Page 96 – Ex 7.8**

Pictures	Threats to lagoons
	<b>Oil spillage by boat.</b>
	<b>Waste water from industries / factories.</b>
	<b>Sewage from houses.</b>
	<b>Ash from the burning of sugarcane near the sea.</b>

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- (a) Aquatic plants and animals will die.
- (b) The coral reefs will stop growing. / Polyps will die.
- (c) People will stop performing leisure activities.

**Ex 7.10**

Factories must recycle their wastes before releasing in water.  
Laws must be reinforced to prevent factories and people from polluting the lagoon.

**Ex 7.11**

- 1. The washing away of top fertile soil by heavy rainfall.
- 2. Because there are no roots (plants) to bind the top fertile soil.
- 3. (a) Because of soil erosion.  
(b) Marine animals and plants will be in danger. /  
Marine animals and plants may die.
- (c) Trees / plants must be planted to prevent soil erosion.
- 4. The washing away of the sand from the beach is known as beach erosion.
- 5. Sand mining / Strong waves / Absence of coral reefs.
- 6. (a) Marine animals and plants lose their habitats.  
(b) Coral reefs will be destroyed.  
(c) The lagoon will no longer be safe to practice leisure activities.

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**Ex 7.13**

- 1. Mangroves protect the coast from strong waves.
- 2. Mangroves are the habitats of some animals.
- 3. Poudre d'Or / Case Noyale
- 4. Gabions prevent strong waves from reaching the beach.
- 5. Poudre d'Or / Cap Malheureux
- 6. Rock revetment decreases the wind tidal and wave energy.
- 7. Les Sallines / Bois des Amourettes

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- 1. Squid / Plankton / Seabird
- 2. The squids and the fish would not have food to eat.

