EVS – UNIT-1 Field and Forest

1)Name of the animals that live in land

➔ Elephant,Cow, Giraffe, Dog, Tiger

2)Name of the animals that live in water

➔ Fish, Octopus, Dolphin, Shark, Whale

3) Animals that can live in both water and land

➔ Frog, Crab , Snake , Turtle, Seal

4) What are the special features of a fish

- The boat - like shape with both ends pointed enables the fish to move through water.
- The fins also help the fish to swim in water.

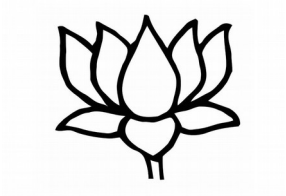
5) What is called adaptation?

➔ An organism has certain peculiarities that help it to live in its dwelling place. This is called adaptation.

6)What plants and animals that you can find in a pond and a paddy field?

➔ Lotus , Fish , Frog, Water lilly, Snake, Algae

7. Adaptations of water living plants



- ans. They do not decay when they live in water
- The leaves float on the water surface
- The flower remains erect above the water level

8. Adaptations of a turtle

- Body is slippery
- Limbs(അവയവങ്ങൾ) help to move on land
- Webbed feet help to swim

9. What are the special features of Duck that helps it to move in water as well as on land?

- Oily feathers
- Serrated beak
- webbed feet

10.Adaptations of Crocodile

- Shape of the body
- Elongated tail
- Legs suited to walk on land

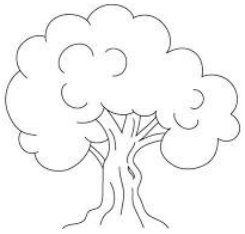
11. What are the adaptations of frog?

- Slimy body
- Legs suited to jump on the land
- Webbed feet helps to swim in the water

12. What are the adaptations of stork(കൊക്ക്)?

- Elongated Leg
- Elongated neck
- Long and pointed beak

13.What are the benefits that the organisms get from a banyan tree?



Ans.

- Food
- Rest
- Shade
- Pure air
- For building nest

14. How do Plants, animals and soil are related?

Ans. Plants and animals help each other to survive. Living and non-living things depends on each other.

15.What are biotic factors?

Ans. Living things are biotic factors. Example – Plants, animals etc.

16.What are abiotic factors?

Ans. Non-living things are abiotic factors. Example – Stone, river, soil etc,

17. How do abiotic factors help animals and plants?

- Ans) Plants and animals need air for breathing.
- Plants and animals cannot live without water
- Plants cannot grow without sunlight.

18. Complete the table about Biotic / Abiotic factors and Interdependence

No	Biotic/Abiotic factors	Interdependence
1	Fish	➢ Live in water ➢ feed on small organisms in water
2	Water	• Provides dwelling place for organisms
3	Banyan tree	• Make the soil fertile • Helps retain water in the soil
4	Lotus	• Living in the water
5	Rock	• Provides living place for organisms
6	Air	• Organisms need air to breath and live
7	Frog	• Lives both in water and on land
8	Water snake	Lives in water and feed on small animals
9	Light	• Helps the organisms to see
10	Tortoise	• Digs burrows in the soil and lives there
11	Soil	• Helps the plants to grow
12	Vines	• Gives fruit • Grow towards the sunlight

19.What is an ecosystem?

Ans) An ecosystem includes the mutually dependent biotic and abiotic factors of a particular place.

20.How beautiful is the forest! Why is it so beautiful?

Ans) So many diverse organisms like huge trees, tiny plants, animals, birds, insects and many others live in the forest. Butterflies and streams provide charm to the forest. The forest is indeed a world of wonder!

21. How is the forest useful to us and other organisms?

Ans)

- streams and rivers emerge from forests.
- Forest helps to get rain
- It protects animals
- We get pure air from forest
- forest is the habitat of diverse living things.

22)Make a list of ecosystems.

- Hills
- bush
- sacred groves (kavukal)
- Ponds

23. What are the harmful effects of demolition of hills and forest?

- Animals lose their home
- Plants perish
- Streams dry
- Water scarcity occurs
- Natural calamities occure.

24. What are the different activities of man that destroys the ecosystem?

- Deforestation
- Sand-mining
- Excessive use of pesticides
- Dumping of plastic waste in the soil and water.
- Reclamation of paddy fields

25)What are the effects of deforestation ?

- Deforestation will lead to the destruction of plants and animals. It reduces rainfall

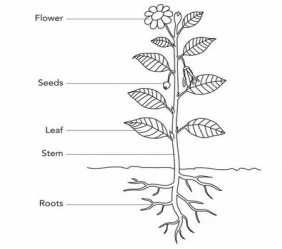
26) What are the activities that we can do to protect our environment?

Ans)

- Growing plants
- Make a medicinal plant garden
- Make a flower garden
- Make an ecopark
- Creating environmental awareness
- Reduce the use of plastic materials
- Use paper bags and ink pens
- Making posters and leaflets
- Cleaning
- Conservation of water

UNIT 2 – THE LEAF TOO HAS TO SAY

Q1) Draw the picture of a plant and label its parts

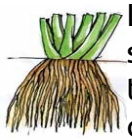


Q2) Draw and explain Tap root system,give examples

The tap root system consists of the larger tap root and the smaller branches growing from it. The tap root system grows more deeply.

Hence these roots hold the plant firmly in the soil. Examples: Mango tree, Jack tree,Teak, Brinjal, Pea, Amaranthus, lady's finger

Q3) Draw and explain Fibrous root system,give examples



Large number of roots grow from the base of the stem and they are fibre like and look similar. It is the fibrous root system. There is no main root. They do not grow deep in the soil. The roots grow far and wide in the upper soil. It is easy to uproot the plants. coconut, arecanut, bamboo, paddy,grass etc. are plants with fibrous root system

Q4) Draw and explain Reticulate venation.

The network - like venation in leaves is called reticulate venation.

Reticulate venation examples:Mango, coriander, rose and oak.

Q5) Draw and explain Parallel venation

The parallel arrangement of veins in leaves is called parallel venation. Parallel venation examples: banana, palms, lily, grass and wheat.

6) Find out the differences between reticulate venation and parallel venation

- In reticulate venation some veins originate from the central vein and run towards both parts of the leaf. But in parallel venation the veins originate from the leaf stalk and run almost parallel and reach the tip of the leaf. The veins do not touch each other in any part of the leaf.
- It is difficult to tear the leaves with reticulate venation. But leaves with parallel venation can be torn easily.
- The principal vein is absent in leaves with parallel venation. these are generally long and narrow.

Q7) Tabulate the root system and venation of the plants we observed

Name of the plant	Root System		Venation		Number of cotyledons
	Tap root	Fibrous root	Reticulate	Parallel	
Coconut Tree		x		x	1
Mango Tree	x		x		2
Arecanut Tree		x		x	1
Jack Tree	x		x		2
Bamboo Tree		x		x	1
Teak Tree	x		x		2
Paddy		x		x	1
Hibiscus	x		x		2

Q8) Draw and label Different stages of germination of a paddy grain and pea seed.

Q9) What is Radicle?

- The part that comes out first from the seed is called radicle.

Q10) what is Plumule?

- The part that comes out after the radicle, becomes the stem of the plant.It is the plumule that grew into the stem

Q11) What are the various stages of seed germination?

- When conditions become favourable, the grain germinates and a new plant is formed out of it.
- The part that comes out first during germination is called radicle.This part is changed into root.
- The direction of growth is downward.
- The part that comes out after the radicle is called plumule.
- The plumule grows up and changes into the stem of the plant.

Q12) What is called cotyledon?

- The thick leaf – like part seen in the plumule of the germinating pea seed is the cotyledon

Q13) From where did the radicle and the plumule get food to germinate?

- Plants store food in cotyledons for germination of seeds. The cotyledons become thin and lean according to the growth of the plant. This is because the plant uses the food stored in the cotyledons. The food stored in the cotyledons is used by the plants until they can prepare food by themselves.

Q14)What are monocotyledonous plants (monocots)?

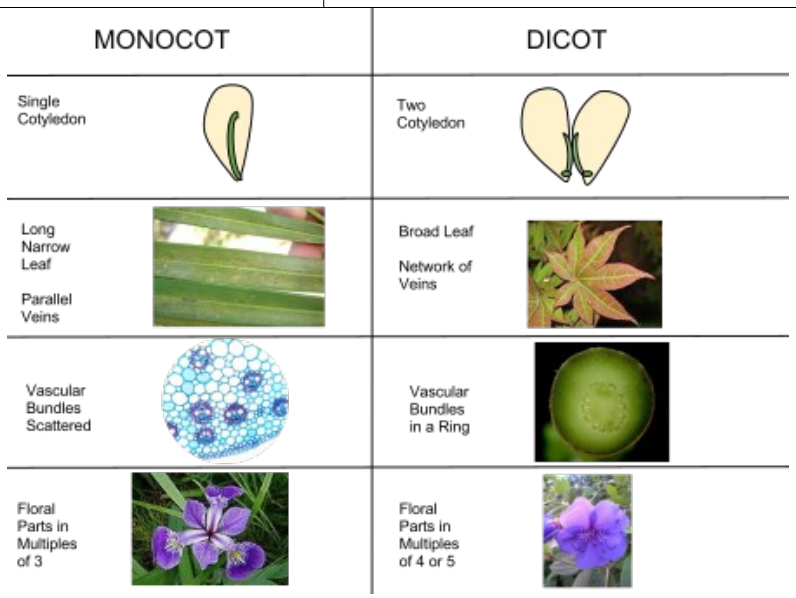
- Plants having only one cotyledon are called monocotyledonous plants(monocots). The outer part of the stem of monocot plants is harder than the inner part.Examples: rice,barley,wheat,palm trees, bamboo, bananas and ginger

Q15) What are dicotyledonous plants (dicots)?

- Plants having two cotyledons are called dicotyledonous plants(dicots).In dicot plants, the inner part is harder. Examples:Pea,Beans, mango.

Q16) What are the differences between Monocot and Dicot .

	MONOCOT	DICOT
1	Single Cotyledon	Two Cotyledon
2	Long Narrow Leaf	Broad Leaf
3	Parallel Veins	Network of Veins



UNIT- 3 The Road to Independence

Q1) When did Gandhiji came back to India from South Afrca?

On 9th January 1915 at Apollo Banther harbour, Bombay

Q2) What was the condition of India during British rule, when Gandhiji came back from South Africa.

The British ruled India threatening and killing the Indians. Indians were forced to obey all their rules such as Students punished for singing patriotic songs, Farmers lived in misery, Taxes increased etc.

Q3)How did Gandhi became the leader of Indian National Congress.?

Gandhiji devised new means of protests, like Satyagraha for the fight against the British. Gandhiji's simple way of life and pleasing speech capture the minds of ordinary people. Their mass support raised him to the leadership of the Indian National Congress.

Q4) What is called Satyagraha?

Satyagraha means holding on to truth. Never accept anything evil, oppose it. ,Do not use violence. Never give up non-violence.

Q5) Explain about Champaran Satyagraha (The first struggle for peasants)

The peasants(farmers) of Champaran village in Bihar were in great misery. They were forced to cultivate indigo. They have to sell it at a rate fixed by British landowners. They levied excess taxes . Gandhiji led a Satyagraha struggle and set the peasants free from misery(ദുരിതം).

Q6)Explain about Kheda Satyagraha?
The Kheda Satyagraha demanded that the taxes imposed on peasants should be reduced when the yields(വിളകൾ) are low.

Q7) Explain about Ahmedabad textile mill strike?
Ahmedabad textile mill strike was for raising wages.

Q8) complete the table about Struggles and their special features

Agitation	Peculiarities
Champaran Strike	Miseries of Farmers Introduces Satyagraha Farmers problem reduced
Kheda Strike	To reduce the newly added tax strike led by Gandhiji It was successful
Ahmedabad strike	To increase wages strike led by Gandhiji It was successful

Q9) Prepare note on Jallianwallabagh incident
The place known as Jallianwallabagh in Punjab. A big open ground surrounded by huge buildings, with only one entrance. A meeting was going on there to protest against the injustice of the British. Suddenly British army started firing. The shocked and horrified people ran all around for life. Hundreds of people lost their lives. This incident, that shocked the Indian mind, took place on 13 April, 1919.

Q10) Explain about Non-cooperation Movement
It was decided not to cooperate with the British Government at any level. The demands of the Non-cooperation Movement are Promote Khadi, Boycott foreign clothes, Promote Hindi, Stop using alcohol.

Q11) Prepare note on the importance of the Salt Satyagraha (Dandi March)
It was Gandhiji who introduced salt as a tool for agitation. Salt is made by evaporating sea water. The British rulers imposed heavy taxes on salt. If anyone made salt without paying tax, it would be a punishable offence. Gandhiji and his followers marched from Sabarmati Ashram for 388 Kilometres and reached the Dandi beach. There he broke the salt law. On March 12, 1930.

Q12) Explain about “Kerala and the Salt Satyagraha”
By singing Patriotic songs Satyagrahis violated the law on salt tax at Payyanur sea shore in Kannur. K. Kelappan led this protest in Kerala. Later he came to be known as ‘Kerala Gandhi’.

Q13) Write the names of Freedom fighters of Kerala
K.Kelappan, T.K. Madhavan, Mohammed Abdu Rahman , K. P. Kesava Menon, A. K. Gopalan, Akkamma Cherian, Kutty Malu Amma etc., were the main leaders who led the freedom struggle in Kerala

Q14) Identify the protests in Kerala related to the freedom struggle.
Malabar rebellion, Revolts organized by pazhassiraja, Guruvayur Sathyagraha, Vaikom Satyagraha.

Q15) Prepare note on 'Quit India’ Movement?
Jawaharlal Nehru presented the Quit India Resolution at the Congress session held in Bombay. ‘Do or Die’, the exhortation of Gandhiji was taken up by the masses. Everyone, including students, joined the struggle. We observe August 9 as ‘Quit India Day’.

Q16) What is the importance of October 2nd ?
The United Nations has declared October 2 nd , the day of Gandhiji's birth, as World Non violence Day. This is the world's recognition of Mahatma Gandhi's message of 'ahimsa'.

Q17) Name some of the leaders who fought bravely for freedom?
Jawaharlal Nehru, Bhagat Singh, Sardar Vallabhbhai Patel, Sarojini Naidu, Balagangadhar Tilak, Khan Abdul Gaffar Khan, Subhash Chandra Bose, Gopalakrishna Gokhale, Dr.S Rajendra Prasad, Maulana Abul Kalam Azad

Q18) When did India became independent?
It was the result of the sacrifice and struggles of several such brave patriots that India became independent on 15 August 1947.

Q19) Who is known as 'Kerala Gandhi'?
K. Kelappan

Q20) When do we celebrate Quit India Day?
August 9

Q21) What was the exhortation of Gandhiji in the 'Quit India' Movement?
'Do or Die'

UNIT- 4 Wonder World of Birds

Q1) What are the common characteristics of birds?
They have feathers in their body, They lay eggs, They have wings and tail, They have two limbs, still many of them fly. It is easy to identify many birds from their sounds. They search for food, They feed the young ones, They make nests, Normally, they wake up either before or just after sunrise. They return to their nests in the evening. They can perch on the branches of trees and sleep.

Q2) Mention the names of the birds seen in your locality
Parrot, Mynah, Woodpecker, Kingfisher, Sparrow, Crane, Humming bird, Kite, Pigeon.

Q3) Where do birds build nests?
On the holes of tree trunks, In between the branches of trees, Between the leaves of sugar- cane and coconut trees, Among bamboo thickets, In burrows Among the crevices of rocks, Pits made on ground, On floating twigs Among the litter lying on the floor.

Q4) Why do birds make nests?
Birds build nests in order to lay eggs, to rear the chicks and for protecting themselves. Though birds build nests, they do not live in them for a long time.

Q5)Do all birds make nests? If not, where do they lay eggs?
The cuckoo/koel is a bird which does not build nests on its own,They lay eggs in the nests abandoned by other birds and they do not rear their chicks too. There are also a few birds which do not make their own nests.

Q6) What are migratory birds?
Some birds come from far off places in certain seasons. They are known as migratory birds. They are visitors who come from far off places. But they return before the monsoon in our country. They move from one place to another for food , reproduction and to overcome bad weather

Q7)What are the physical features which enable the birds to move and to catch prey? (How do shape, size, legs, wings etc., help birds to fly?)
The water-wading birds have long legs and beaks eg: Crane. Birds that can take the nectar from the flowers have long and curved beaks eg: Humming bird. There are birds that have curved and sharp beaks to help them eat fruits while perching on the branches of trees. eg: Parrot. Birds that fly very high in the air have longer wings and sharp vision, eg: Vulture.

Q8)What are the peculiarities of the eagle? How do these peculiarities enable the eagle to catch prey?
Keen eye sight, Curved and sharp beak, Strong sharp and pointed claws, Can fly downwards and upwards. It can quickly fly down to the ground . It can snatch away the chicks with its long and curved claws and can fly high up in the air and it has sharp vision. It catch its prey with long beaks and fly away quite easily. It can see the objects that are far away as it has sharp vision. It possesses a strong body. Kites can be seen in almost all over in Kerala. It can fly high in the sky. While flying it can glide in the wind without moving its wings.

Q9)How beaks and legs help birds in gathering food?
The webbed feet of Duck help them swim in water. The curved beaks of vulture and kite help them to catch the prey and fly away quickly .The flat beaks of ducks have sieves on both the margins. While it catches prey from water, some water enters the beak. This can be sent out through the sieve-like part. vulture and kite have strong feet, long and curved claws that allow them to fly away holding the prey to far off places. The long limbs of the Crane help it to step into the water and catch its prey by using its long beak.

Q10)The beauty and the sounds made by the birds make our environment more attractive and beautiful. What are the other uses of birds?
Owls and kites eat rats that are harmful to us. Thus they prevent their multiplication. The dispersal of seeds is made possible by certain birds that eat the fruits of trees and plants. Pests are being eaten away on a large scale by these birds and thus they prevent their multiplication. Birds like crows and hens act like scavengers, they help us by keeping our surroundings clean. Many birds and their eggs are used as food by us. We also rear birds in order to enhance aesthetic beauty.

Q11) Birds are one among the factors that protect our environment. But their population is getting decreased alarmingly. What could be the reasons for it?
Increased use of pesticides ,Hunting and Poaching, Being used as food ,Pollution, Deforestation, Forest fire, Climate change

Q12) It is our duty to protect birds. How can we do that?
We should stop hunting the birds for fun. We should control pollution. We should stop deforestation. We should cultivate an attitude in ourselves that even the birds have the right to live in this earth just as we do. Remember, it is our own necessity to protect the birds. We should provide an atmosphere where birds can live without fear.

Q13) Prepare A bird-watcher's note
(Model- Parrot) It has blue colour above its tail. It has yellow colour at the base of the tail. The upper part of the beak has red colour, and the lower part has black colour. The length from the head to its tail is about 40 centimetres. We can see them in the countryside, they flock together and live as communities. Cereals, fruits and seeds are their food. They lay eggs in the nests abandoned by other birds, or on crevices of rocks, or on the holes of the walls. Eggs are white in colour. These pretty parrots have beautiful sounds too.

Q14) Why do we rear birds in our homes?
For fancy, For eggs, As an occupation For entertainment, For fertilizer, For flesh, To feed them with the remains of food.

Q15) Birds that are unable to fly are
(1) Ostrich (2) Emu (3) Kiwi etc.

Q16) bird-watcher's note -Sparrow
Sparrow is a bird that is normally seen in urban areas right from olden days, But now these birds are not to be seen in our areas. It is a bird that can form intimate relationship with human beings. It is a having the length of about 16 cms . Its food consists of cereals. Environment pollution and human interferences are the reasons for their decreases in number.

Q17) Flightless birds
Emu, Kiwi, Ostrich, Penguin

Q18) Complete the table

NO	BIRDS	BODY FEATURES	ADAPTATIONS
1	Curlew	Long curvedbeak	Helps to catch even small organisms that hide in the mud and sand
2	Humming bird	Long and curved tube like beak	Helps to sip honey even from long flowers , Helps fly in the air in a place
3	Wild duck	Boat shaped body, Long and flat wings	Helps to fly fast, Wings help to fly high
4	Painted stork	Long beak	Helps to catch fish even under the water
5	Bronze Winged Jacana	Long toes	Helps to walk, on the lotus leaves
6	Rose Ringed Parakeet	Legs with toes forwards and backwards with pointed claws	Helps to hold on branches firmly.

Q19) Identify and state the importance of birds.
*****Birds help in the dispersal of seeds. *****Birds help plants to grow in different places. *****Birds help to maintain plant diversity.

Q20) How will it affect the nature if the number of birds decrease and their extinction ?
There will be an increase in the number of rats and insects .This will result in the destruction of cultivation. Forest , sacred grooves etc will lose their natural beauty. There will be an extinction of plants in which seeds are dispersed by birds. Destruction of biodiversity .

Q21) Where can we see angadikuruvi? What may the reason for their decrease in number ?
Non-availability of tiny insects as food due to the loss of vegetation around our modern buildings. The excessive use of mosquito repellents indoors and insecticides outdoors. Our concrete architectures with no nesting sites for sparrows Air-conditioning which leaves no entry or exit points for feeding sparrow nestlings. Increasing noise from auto mobiles and their gaseous pollutants. The recent increase in electromagnetic radiations from cell phone towers . Explosive use of diverse wireless devices indoors.