



Master Lesson Plan

For

Environment

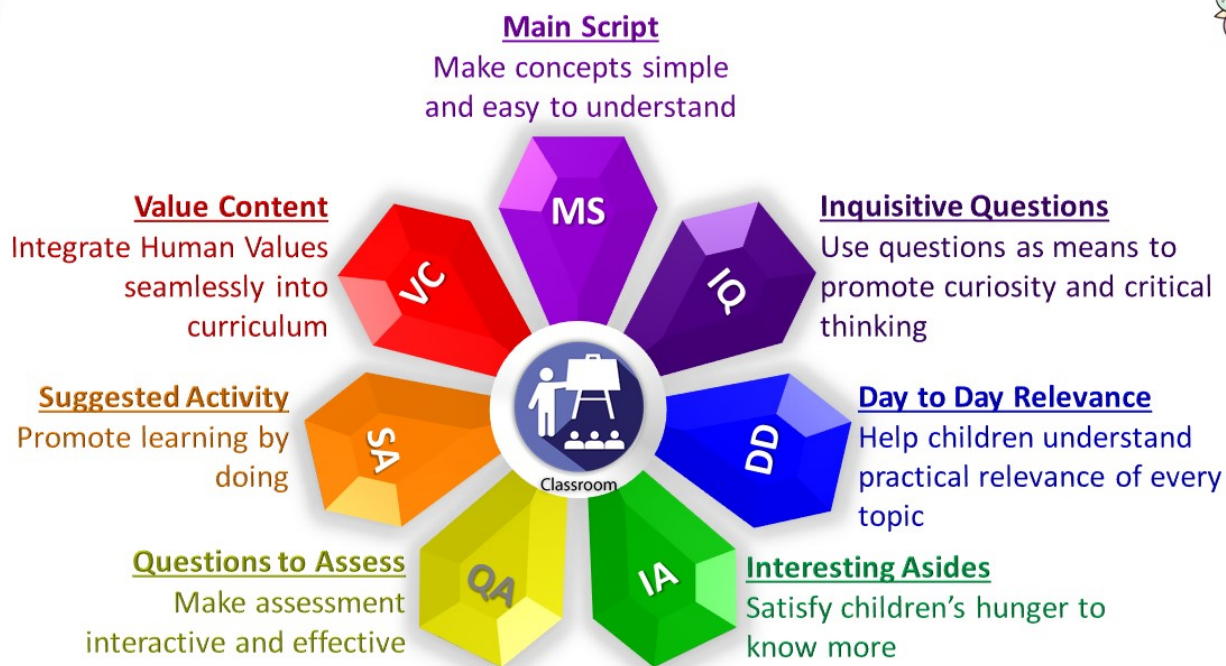
Board	Standard	Subject	Chapter	Language	Reference Link	Creation date
CBSE	STD VII	Social Science	Environment	English	Environment	2021-06-14 16:16:58

DISCLAIMER

1. Strictly not for Commercial use.
2. Provided on **as is** basis with no warranties of any kind.
3. Content that falls in Public Domain or common Knowledge facts can be used freely.
4. Some of the contents are owned by the Third parties and are used in compliance with their licensing conditions. Any one infringing the Copyright of such Third parties will be doing so at their own risks and costs.
5. Content can be downloaded and used for Personal, educational and informational purposes only. Any attempt to remove, alter, circumvent or distort the data that is accessed is Illegal and strictly prohibited.



Master Lesson Plan (MLP) - Covers the entire chapter with the help of these 7 asset types



For more information on how to use the lesson plan effectively, please scroll to the guidelines at the end of this document.

Environment

1. MS_Objectives - Environment

Objectives - Environment

Note to the Teachers: This asset lays down the proposed plan for transacting the chapter. It states the objectives of this lesson plan. It conveys the same in terms of expected learning outcome for each asset. This asset is only for the teacher's reference and hence it need not be taught to the students.

The students will be able to:

- point out why there are changes in the environment;
- classify the components of the environment into different categories;
- differentiate between the biotic and abiotic components;
- analyse the different domains of the natural environment;
- adapt ways to keep the environment clean without pollution;
- discuss the various types of ecosystem with examples;
- discuss about people who helped restore the ecosystem such as Saalumara Thimmakka, Jadav Payang, and Dr. Rajagopalan Vasudevan;
- discuss about clean beach campaigns and animal adoptions;
- explain the human environment and how it is changing;
- achieve physical and mental balance to lead a harmonious life;
- recall the different components of environment.

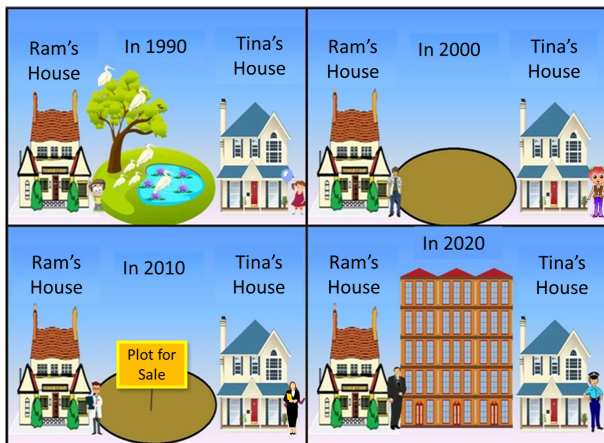
Time to teach	Asset Type	Theme	SubTheme
2 Minutes	Main Script	Resources	Natural Environment , Natural and Human made resources , Human Environment, Ecosystem , Conserving Resources , Components of Environment, Natural Environment , Natural and Human made resources , Human Environment, Ecosystem , Conserving Resources , Components of Environment

2. IQ_Understanding the Environment

UNDERSTANDING THE ENVIRONMENT

Note to the teacher: The lesson may be introduced by showing the picture and asking the following questions. The teacher may enable the students to think and come out with as

many answers as possible before giving out the right answer/ answers.



Look at the above picture and answer the questions below:

1. In the year 1990, what is found between Ram's and Tina's house?

Suggested Answer:

In 1990, a beautiful pond with lotuses and birds was found between Ram's and Tina's house.

2. Why do you think the pond between Ram's and Tina's house is dry in the year 2000?

Suggested Answer:

In the year 2000 there was a drought in their town.

3. What happened to the pond area in the year 2010?

Suggested Answer:

The pond area has been encroached and the land is for sale.

4. Why do you think that the pond has been replaced by the apartment and why are there changes in our environment?

Suggested Answer:

1. The pond has become dry and the land was used for construction of apartments for more people to live.
2. There are a lot of changes in the environment due to the rising need of the people.
5. How does man modify the natural environment for his needs and how is it affecting our

environment?

Suggested Answer:

- We build houses, buildings, bridges, factories, temples on the land.
- We use the water from ponds, rivers, and lakes and even store them for our use.

Negative effects of modifying the natural environment:

- We cut trees for our use which destroys forests.
- The vehicles we have created pollute the air we breathe.

So when man modifies the environment sometimes it even destroys our natural environment.

Link for image used in this asset:

- Rams house: sssvv gallery keywords: big house
- Tinas house: <https://pixabay.com/illustrations/house-residence-blue-1429409/>
- Apartment: <https://pixabay.com/vectors/town-houses-building-window-facade-5469919/>
- Pond: <https://pixabay.com/vectors/pond-tree-water-nature-landscape-310139/>
- Water lily: <https://pixabay.com/vectors/water-lily-lake-pond-nature-4346599/>
- Heron: <https://pixabay.com/vectors/bird-wings-standing-beak-feathers-46485/>
- Boy: <https://pixabay.com/vectors/boy-child-kid-teenager-teen-male-160014/>
- Girl: <https://pixabay.com/illustrations/baby-girl-girl-balloon-the-balloon-1443463/>
- Teenage boy: <https://pixabay.com/vectors/boy-man-teen-teenager-young-161793/>
- Teen girl: <https://pixabay.com/vectors/anime-people-girl-woman-redhead-154943/>
- College boy: <https://pixabay.com/vectors/boy-cartoon-chart-checkup-clinic-2027615/>
- College girl: <https://pixabay.com/vectors/businesswoman-secretary-body-4497807/>
- Working man: <https://pixabay.com/vectors/businessman-professional-310244/>
- Working woman: <https://pixabay.com/pt/vectors/pol%C3%ADcia-diretor-oficial-de-pol%C3%ADcia-145194/>

Time to teach	Asset Type	Theme	SubTheme
5 Minutes	Inquisitive Questions	Resources	Natural and Human made resources , Natural and Human made resources

3. MS_Components of the Environment

COMPONENTS OF THE ENVIRONMENT

Note to the teacher: Environment is the basic support system which includes the air, water, food, and the land, which we live in. Our environment is changing rapidly and that we humans are modifying it as per our needs.

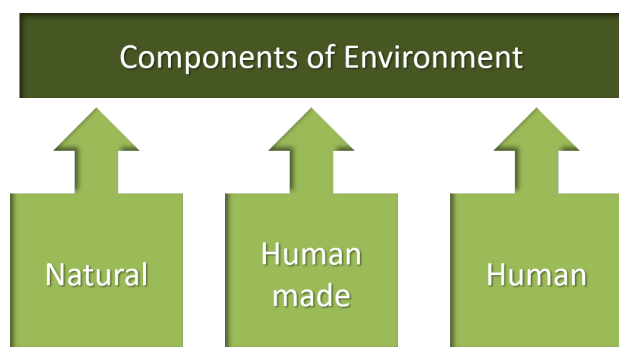
ENVIRONMENT:

The word ENVIRONMENT is derived from the French word ENVIRONNER/ ENVIRONER,

which means neighbourhood. Environment is the people, place, natural and man-made things and nature that surrounds any living organism.

Components of the Environment are:

- Natural
- Human-made
- Human



Natural Environment:

The Natural Environment includes:

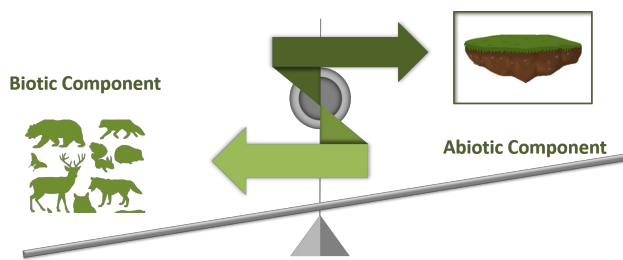
- Air
- Water
- Land
- Living things



Biotic Component: The biotic component includes the world of living organisms. E.g. Plants, animals

Abiotic Component: The Abiotic component includes the world of non-living elements. E.g. land, mountain

Thus the natural environment is a combination of both biotic and Abiotic components.



Human-made Components:

The human-made component includes:

- Buildings
- Roads
- Bridges
- Monuments
- Industries

Human Component:

The human component includes:

- Individual
- Family
- Community
- Religion
- Educational
- Economic
- Political Situation

Now we know that the environment includes natural, human-made and the human component.

Human environment is interaction among human beings, their activities and creations.

Link for image used in this asset:

- Biotic- <https://pixabay.com/vectors/animal-bear-collection-silhouettes-1297864/>
- Abiotic (soil) - <https://pixabay.com/vectors/grass-earth-lawn-environment-soil-575728/>
- SSSVV Gallery: 1. Wind (Title: Air); 2. River (Title: Sources of water); 3 Ground (Title: Potato plant) 4: Nature (Title: Natural resources)

Time to teach	Asset Type	Theme	SubTheme
5 Minutes	Main Script	Resources	Components of Environment, Components of Environment

4. SA_Biotic and Abiotic Components

BIOTIC AND ABIOTIC COMPONENTS

Note to the teacher: The teacher can split the class into groups and give them some pictures of ecosystems from which they will write the biotic and Abiotic components.

Aim:

- Students will be able to differentiate between the biotic and abiotic components.
- This will be a group activity inside a class room under teacher's guidance and supervision.

Notes to the teacher:

The teacher can split the students into groups of 4 or 5.

The teacher can:

- *select one representative from each group to bring one chart for each group.*
- *select one representative from each group to write the biotic and abiotic components.*
- *select one representative from each group to present their work before the class after completing the activity.*

Material required:

- pictures of different ecosystems
- one chart paper for each group
- glue
- pen/pencil
- scale

Methodology:

- Students will be split into groups of 4 or 5.

- Each group can be given an ecosystem picture selected by the teacher.
- One representative from each group can bring chart paper to stick the picture.
- The students can discuss and one representative from the group can write the biotic and abiotic components of the given ecosystem under the picture in a tabular column.
- After writing the biotic and abiotic component, a student representative from each group can present their work before the class.

Sample Charts



BIOTIC COMPONENTS	ABIOTIC COMPONENTS
BIRD	BENCH
GIRL	RING
MOTHER	BALL
FATHER	SHUTTLE BAT
BOY	CHESS BOARD
BUSH	MAT
FLOWER	SHUTTLE COCK



BIOTIC COMPONENTS	ABIOTIC COMPONENTS
PEOPLE	BENCH
DOG	MOUNTAIN
TREES	HOUSE
CAT	BOAT

Notes to the teacher:

Sample charts are given. The teacher can select pictures of ecosystems similar to the sample charts for each group.

Conclusion:

- Students will be able to differentiate between Abiotic and biotic components of an ecosystem.

Link for image used in this asset:

- Lake Picture: <https://pixabay.com/vectors/painting-family-landscape-lake-5437915/>
- Park Picture: <https://pixabay.com/illustrations/games-park-child-children-grass-1459575/>

Time to teach	Asset Type	Theme	SubTheme
10 Minutes	Suggested Activity	Resources	Components of Environment, Components of Environment

5. MS_Natural Environment

NATURAL ENVIRONMENT

Notes for Teacher – The teacher can show the following picture in the class and ask them the question.

What does our natural environment comprise of?



Suggested Answer:

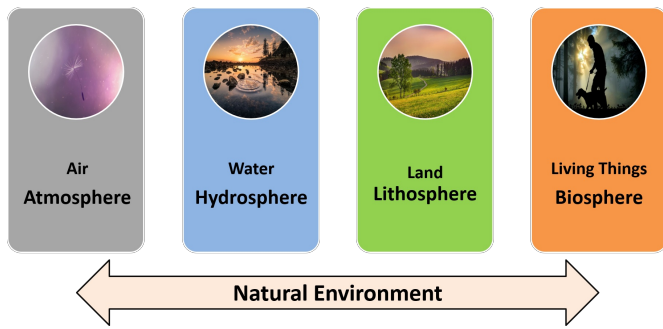
Natural Environment comprises: Rocks around us, the earth's surface, water around us, the mountains, atmosphere, plants, animals, and so on.

Domains of Natural Environment:

This natural environment is classified into domains.

The various **domains of Natural Environment** include:

- Atmosphere (Air)
- Hydrosphere (Water)
- Lithosphere (Land)
- Biosphere (Living things)



Lithosphere:

- Lithosphere is made up of rocks and minerals forming a solid crust.
- It provides us with precious mineral wealth.
- It is enveloped by layers of soil.
- It has an uneven and rugged surface with various landforms like mountains, plains and plateaus.
- It covers the continental surface as well as the ocean floors.

Lithosphere provides



Forest



Grasslands



Grazing ground
for Cattle



Land for Human
Settlements

Hydrosphere:

- It is this sphere that makes our earth unique.
- It comprises various water bodies we find in our surroundings.
- Lakes, rivers, oceans, seas, ponds, reservoirs are all a part of the hydrosphere.
- Water is most essential for the living organisms including human beings.



Atmosphere:

- It is an envelope of air that surrounds the earth.
- It is held around the earth by the force of gravity.
- The harmful rays like UV rays and the intense heat of the sun is blocked by the atmosphere, thereby saving life on earth.
- Weather and climatic changes take place due to various changes in the atmosphere.
- It also contains dust, gases and water vapour.



Biosphere:

- The zone of interaction of land, air and water to support life makes up the Biosphere.
- The plants, animals and human beings are components.



COMPONENTS OF NATURAL ENVIRONMENT

Biotic Component: The biotic component includes the world of living organisms, e.g., plants and animals.

Abiotic Component: The abiotic component includes the world of non-living elements, e.g., land, mountain.

Thus the natural environment is a combination of both biotic and abiotic components.

Link for image used in this asset:

- natural environment: <https://pixabay.com/photos/lake-sunset-rocks-bank-conifers-1802337/>
- grassland: <https://pixabay.com/photos/sauerland-germany-landscape-nature-4126916/>
- forest: <https://pixabay.com/photos/forest-trees-sun-rays-sunlight-fog-1072828/>
- grazing animals: <https://pixabay.com/photos/cow-cattle-grass-grazing-animals-6057194/>
- water: <https://pixabay.com/photos/bottle-mineral-water-bottle-of-water-2032980/>
- land for human settlement: <https://pixabay.com/photos/architecture-chicago-buildings-city-1869211/>
- atmosphere: <https://pixabay.com/vectors/ozone-sphere-atmosphere-ultraviolet-33227/>
- biosphere: <https://pixabay.com/photos/walk-man-dog-animal-forest-2670512/>
- air: <https://pixabay.com/photos/dandelion-umbrella-flying-blow-4186350/>
- water: <https://pixabay.com/photos/lake-sunset-rocks-bank-conifers-1802337/>
- land: <https://pixabay.com/photos/sauerland-germany-landscape-nature-4126916/>

Time to teach	Asset Type	Theme	SubTheme
10 Minutes	Main Script	Resources	Natural Environment , Natural Environment

6. DD_A Clean Unpolluted Environment

A CLEAN UNPOLLUTED ENVIRONMENT

Note to the teacher: The teacher can commence the class with the following story.

The class VII students of Mithun School plan for a picnic to the beach along with their class teacher. The children were very excited to go and play, so they took their Frisbee, cricket kit ball and sand castle buckets. They packed their snacks too.

They started by bus and reached the beach. But all the children were disappointed because the beach was badly littered. There were heaps of garbage everywhere and it smelt bad. The children couldn't enjoy the picnic, so they returned earlier than planned. The next day some

of the children got sick and couldn't go to school.



Note to the teacher: *The teacher can prompt students to come up with their own answers.*

Imagine that you were a part of that class. How would you have reacted to the condition of the beach?

Suggested Answer:

Disgusted because of filth; foul smell; Angry - no place to play; no place to sit and eat; birds and dogs trying to find food.

Some students feel sick after visiting the beach. How is health related to cleanliness?

Suggested Answer:

There could be germs that cause illness. Air is polluted and can affect health. The exposure to germs can also cause skin irritation and eye irritation.

Yes. So we get sick if we don't keep our surroundings clean. It is not only the house that we have to keep clean but also our neighborhood. Let's see some ways to keep our house and the surrounding clean.

Ways to reduce waste products produced at our home:

To reduce the amount of wastes which are polluting the land, water and air the 7 R's (Reduce, Reuse, Recycle, Refuse, Rethink, Re-purpose, Rot) can be implemented.

- **Reduce** the amount of waste you produce, e.g., reducing the garbage, food waste, plastic
- Think of different ways to **reuse** your old items, e.g., reuse glass bottles to store other items

- **Recycle** the materials again by making them into new products, e.g., recycle plastic, glass, paper, shoe etc.
- **Refuse** products that cause damage to the environment, e.g., Use your own mugs, cutlery and straws and refuse plastic and paper cups and cutlery
- **Rethink** before exploiting the natural resource, e.g., use reusable towels instead of paper towel
- Before disposing of an item, consider the ways in which it could be **repurposed** or repaired, e.g., Repair old items like sofa, electrical and electronic items instead of buying new ones.
- **Rot** in other words is to make compost, e.g., use kitchen and organic waste into compost and use as manure.



One of the foremost public program is a nation-wide initiative launched by the Government called the Swachh Bharat Mission (or Clean India Mission).

Swachh Bharat Mission

- The Swachh Bharat Mission launched by the Government of India in 2014, is aimed at eliminating open defecation and improving management of municipal solid waste.
- Many individual and private toilets have been constructed and awareness campaigns launched, to bring about a behavioral change in good sanitation practices.

Link for image used in this asset:

- Reduce, reuse, recycle- <https://freemove.org/vector-image-of-recycling-labels>
- Beach trash- <https://pixabay.com/photos/beach-trash-pollution-plastic-4894539/>

Time to teach	Asset Type	Theme	SubTheme
5 Minutes	Day-to-day Relevance	Resources	Conserving Resources , Conserving Resources

7. MS_Ecosystems

ECOSYSTEMS

Notes to the teacher: We can find lots of trees, animals and insects in our surroundings. Today we shall see how they are interdependent.

Living organisms like plants, animals, birds and insects completely depend on the environment around them. For example, camels and snakes in the sandy deserts, coral reefs in the ocean, crocodiles in the river and so on. The living beings also depend upon each other for example, lions on deer or birds on insects.

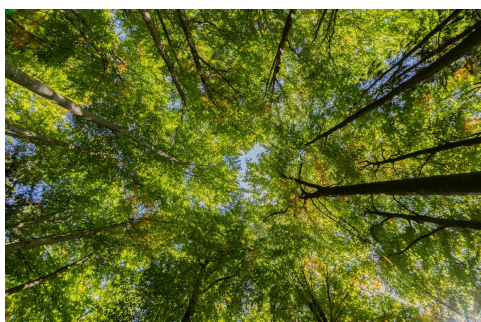
The interaction of all living beings among themselves and with the physical and chemical factors of the environment by transferring energy and material, results in a system, referred to as the '**ecosystem**'. The ecosystem can be large or small.

TYPES OF ECOSYSTEM

The different types of ecosystem are:

1. Rain Forest

In the Amazon rainforest we find Brazil nut trees, animals like monkeys and jaguars. It rains most days. Monkeys eat nuts from the trees and jaguars eat the monkeys.



2. Grassland

Grasslands are mainly dominated by grass with very few or no trees, herbivores like cows, buffaloes, goats, rabbits and mice. We find insects like termites, centipede and millipedes.



3. Desert

Desert ecosystem is covered with sand. Camels, snakes, lizards and insects are found here. There is very little rainfall in deserts.



4. Mountain

Mountains are either rocky or covered by snow with harsh climates. Animals like mountain goat, sheep, elk, wolf, bear and coyote are found.



5. Lake

Lakes are still water, which are not connected with sea. Many types of fishes and aquatic plants are found in lakes.



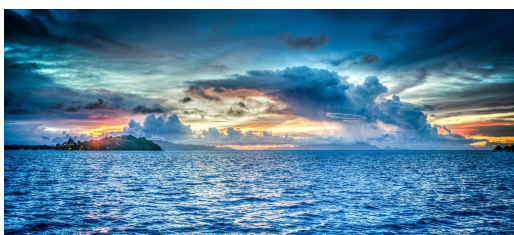
6. River

Rivers are flowing water that is connected with sea. Many types of fishes, aquatic plants and birds that feed on fishes are found in rivers.



7. Ocean

It is one of the large ecosystems. Many types of aquatic plants, marine animals, fishes and whales are all a part of the ocean ecosystem.



8. Pond

It is a small freshwater ecosystem. A pond ecosystem consists of many fishes, frogs, water

birds, aquatic plants like lotus, lily grow here.



From the above examples we can see that animals and trees of a particular ecosystem are different from the other ecosystems. This is because the organisms living in the ecosystem interact with one another and also adapt themselves to the climatic conditions of the environment in which they are present.

We celebrate the World Environment day on June 5th of every year to raise awareness or the various environmental issues and to protect and preserve the environment which is very much needed not only for humans but also for all the other organisms that are a part of it.



Link for image used in this asset:

- Forest- <https://pixabay.com/photos/crown-leaves-canopy-forest-2782858/>
- Grassland- <https://pixabay.com/photos/tree-grass-fields-meadows-2175353/>
- Desert- <https://pixabay.com/photos/desert-sand-dunes-dunes-dry-1270345/>
- Mountain- <https://pixabay.com/photos/mountain-teton-range-peaks-1149897/>
- Lake- <https://pixabay.com/photos/lake-sunset-rocks-bank-conifers-1802337/>
- River- <https://pixabay.com/photos/river-forest-rocks-stream-nature-593146/>
- Ocean- <https://pixabay.com/photos/bora-bora-french-polynesia-sunset-685303/>
- Pond- <https://pixabay.com/photos/water-lily-lily-pads-pond-buds-1308103/>

- Environment day- <https://pixabay.com/photos/environmental-protection-326923/>

Time to teach	Asset Type	Theme	SubTheme
8 Minutes	Main Script	Resources	Ecosystem , Ecosystem

8. IA_Ecosystem and its restoration

ECOSYSTEM AND ITS RESTORATION

Note to the teacher: In today's class we are going to learn about a few people who help restore the ecosystem. Let us watch the video. (If there is no provision to play the video, the Teacher can speak about these 3 personalities).

1. Saalumarada Thimmakka:



- Thimmakka was born in Tumkur district, Karnataka.
- She did not get proper education due to poverty.
- She was married to Sri Bikkala Chikkayya.
- The couple started planting banyan tree in the 4km stretch highway between Hulikal and Kudur.
- Thimmakka is fondly known as Saalumarada Thimmakka, 'Saalumarada' meaning rows of trees in Kannada.
- She has planted more than 8000 trees.
- She was recognised by the Government of India and awarded the most prestigious civilian award, Padma Shri, in the year 2019, at the age of 107.

2. Jadav Payeng:



- Jadav 'Molai' Payeng, born in 1963, is a farmer from Majuli, Assam.
- He is an environmentalist and forestry worker.
- He started planting trees as a teenager and planted one tree a day.
- He has planted trees around 500 hectares over several decades and has created a man-made forest known after him, as the Molai forest along river Brahmaputra.
- In 2015, he was honoured with Padma Shri, the highest civilian award in India.
- He is popularly known as the Forest Man of India.
- Due to his incredible efforts the wildlife has returned to the area and soil erosion near the banks of Brahmaputra is also controlled.

3. Dr. Rajagopalan Vasudevan:



- Dr. Rajagopalan Vasudevan is an Indian Scientist from TamilNadu.
- He is known for his waste management, an innovative method of using plastic for constructing durable and cost effective roads and buildings.
- He was awarded Padma Shri in the year 2018.
- His method is used in rural road construction.
- He is known as the plastic man of India.



Notes for the teacher: This earth is not only a place for human beings but also for all the animals, plants and all beings. We should take responsibility in conserving the environment like these great people who had contributed for the restoration of ecosystem.

As a student, you can help restore environment by Planting trees, participating in clean beach campaigns, adopting zoo animals, participating in restoration of pond and lake habitats in your area.

Link for image used in this asset:

1. Saalumarada Thimmakka- [https://commons.wikimedia.org/wiki/File:Saalumarada_Thimmakka,_2011_\(cropped\).jpg](https://commons.wikimedia.org/wiki/File:Saalumarada_Thimmakka,_2011_(cropped).jpg)
2. Jadav Payeng- <https://flickr.com/photos/imjayantanath/49910982813/>
3. Dr. Rajagopalan Vasudevan - Original Painting by Sis. Smitha Naveen, SSSVV
4. Plastic road- <https://pixabay.com/photos/india-village-road-indian-village-946912/>

Time to teach	Asset Type	Theme	SubTheme
5 Minutes	Interesting Asides	Resources	Ecosystem , Ecosystem

9. MS_Human Environment

HUMAN ENVIRONMENT

As humans, we are constantly trying to make our life more comfortable and easier. This means we always are trying to upgrade the **human environment** we live in.

Early human adaptation to environment:

Human environment is a product of human adaptation, modification of their environment for fulfillment of desires. Initially, man lived a very simple life, fulfilling his needs with whatever was available in his immediate surroundings.

Impact of changing human environment:

Interaction of human environment from early human development till date:

- Cultivation of food crops ensured smooth supply of food.



- Human beings started living a settled life by domesticating animals.



- With the invention of wheel, transportation gradually became faster to make life convenient.



- Advanced technology enabled production of excess food grains, which could be exchanged for other essential goods called the barter system.



- Towns, buildings, roads, bridges were also built.



- Industries and factories came up.



- Trade and commerce flourished.
- Information revolution made communication convenient and faster.

Human beings modified nature to develop agriculture, industries, towns, buildings, roads bridges, transportation and communication. With the invention of technology and machines we could get more in less time. Humans started exploiting natural resources to produce

something new.

It is time for humans to control their wants and make a sustainable way of living harmoniously in the lap of nature.



Link for image used in this asset:

- Crop- <https://pixabay.com/photos/wheat-grass-wheat-field-barley-863392/>
- Domestication- <https://pixabay.com/photos/sunset-asia-labour-work-nature-3819469/>
- Invention of Wheel- <https://pixabay.com/photos/cart-wood-middle-ages-spokes-2581608/>
- Goods- <https://pixabay.com/photos/asian-bag-brown-buy-color-2752/>
- Bridge- <https://pixabay.com/photos/new-york-road-river-bridge-4582504/>
- Factory- <https://pixabay.com/photos/power-plant-industry-chimney-2411932/>

Environment day- <https://pixabay.com/photos/environmental-protection-326923/>

Time to teach	Asset Type	Theme	SubTheme
10 Minutes	Main Script	Resources	Human Environment, Human Environment

10. VC_Lead a harmonious life

Lead a harmonious life

Our ecosystem is made up of 5 elements viz. Earth, Water, Fire, Air, and Space. Nature struggles constantly to maintain a balance. This is the Law of Nature.

The five elements which are present in the environment are present in our human body too in the form of Earth (Bones and Muscles), Water (Blood), Air (Breath), Fire (Heat), and Space (Touch).

Hence it goes without saying that a perfect balance is required in human beings as well to lead a harmonious life.

The teacher can initiate a discussion in the class/ Campus activity:

- Q 1. How do you think we can maintain a perfect balance to lead a harmonious life?

(Let students come out with their response)

Suggested Answer: To lead a harmonious life we need to maintain a perfect balance in our

physical and mental spheres.

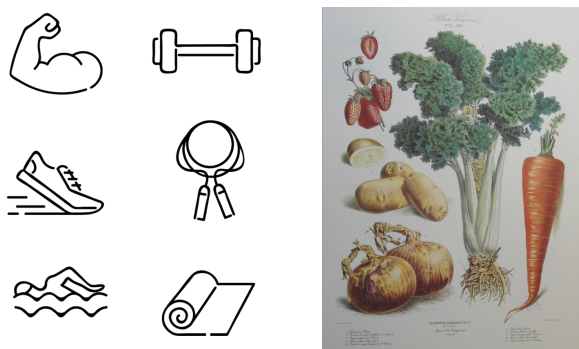
- Q 2: As a student, what are the ways in which you can maintain balance in your physical domain?

(Let students come out with their response)

Suggested answer:

Eat good food. Preferably home-made. Home-made food is always healthy, hygienic and prepared with love by your parents. Eating out once in a while is not bad at all. But striking a balance is the key.

Balance your study time and play time. Playing and exercising are the twin investments for good health. Don't look for excuses for not having the time. "All work and no play make Jack a dull boy." But alongside, studies are also equally important. It is an investment for your mental health. Try to balance these two activities.



- Q 3: In a semester, you got very less marks than you normally get. What would be your mental attitude?

(Let students come out with their response)

Suggested Answer:

Am very sad that I got less marks in the exam.

The student might say they are sad that they got less marks but the teacher can give them the following advice:

Neither being too elated when you get more marks or being dejected when you get less marks but maintaining a balanced attitude is very essential to lead a harmonious life. Life is full of challenges. It might not always be what you expect of it. But accepting it and moving forward is the key to harmony.

Let us look at this story.

A daughter complained to her father about her life and how things were so hard for her. She did not know how she was going to make it and wanted to give up. She was tired of fighting and struggling. It seemed that when one problem was solved a new one arose.

Her father, a chef, took her to the kitchen. He filled three pots with water and placed each on a high fire. Soon the pots came to a boil. In one he placed carrots, in the second he placed eggs, and in the last he placed ground coffee beans. He let them sit and boil, without saying a word.

The daughter sucked her teeth and impatiently waited, wondering what he was doing. In about twenty minutes he turned off the burners. He took the carrots out and placed them in a bowl. He pulled the eggs out and placed them in a bowl. Then he took the coffee out and placed it in a mug.

Turning to her, he asked: "Darling, what do you see?"

"Carrots, eggs, and coffee," she replied.

He brought her closer and asked her to feel the carrots. She did and noted that they were soft.

He then asked her to take an egg and break it. After pulling off the shell, she observed the hard-boiled egg.

Finally, he asked her to sip the coffee. She smiled as she tasted its rich aroma.

She humbly asked. "What does it mean, father?"

He explained that each of them had faced the same adversity, boiling water, but each reacted differently.

The carrot went in strong, hard, and unrelenting. But after being subjected to the boiling water, it softened and became weak.

The egg had been fragile. Its thin outer shell had protected its liquid interior. But after sitting through the boiling water, its inside became hardened and the outer shell cracked.

The ground coffee beans were unique however. After they were in the boiling water, they had changed the water and added more flavour to the beverage.

"Which one are you?" he asked his daughter, "When adversity knocks on your door, how do you respond? Are you a carrot, an egg, or a coffee bean?"



The teacher can continue the discussion:

Q 4. Based on the above story, which one would you like to be:

- The carrot that seems strong but wilts with adversity?
- The egg that has a soft outer and flowy interior but cracks and becomes hard when heat strikes it?
- The coffee bean that actually releases the fragrance and flavour when hot water is poured on it, the very situation that brings the pain?

Suggested answer: If you are like the coffee bean, when things are at their worst, you get better and change the situation around you. The best thing to follow in life is to find a firm ground where you do not feel too much pressure during an adversity nor too light headed during success. This helps you maintain harmony in life.

Story by unknown author. Public domain story.

Link for image used in this asset:

- Fitness- <https://pixabay.com/illustrations/workout-icons-fitness-weight-lifting-5497868/>
- Balanced diet- <https://www.flickr.com/photos/97123293@N07/14473328888>
- Carrot- <https://pixabay.com/photos/carrot-juice-glasses-drink-juice-1623157/>
- Egg- <https://pixabay.com/photos/eggs-boiled-eggs-breakfast-food-875255/>
- Coffee- <https://pixabay.com/photos/coffee-coffee-cup-cup-drink-beans-2714970/>

Time to teach	Value Type	Value Sub Type	Value Attribute
10 Minutes	Peace	Self discipline	Stories

11. QA_Check your Knowledge - Environment

CHECK YOUR KNOWLEDGE - ENVIRONMENT

Note for the teacher: Let us assess some of the discussions we had on the topic 'Environment'.

I. Fill in the blanks:

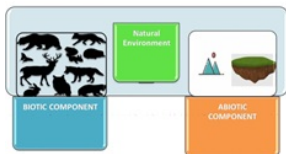
1. The domain of water is referred to as _____.
2. _____ is a trade in which goods are exchanged without the use of money.
3. The World Environment Day is celebrated on _____ every year.
4. The Natural environment includes both _____ and _____ components.
5. _____ is the solid crust or hard top layer of the earth.

Suggested Answers:

1. Hydrosphere
2. Barter System



3. 5th of June
4. biotic and abiotic



5. Lithosphere

II. Answer the following questions:

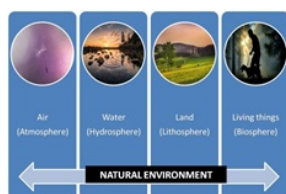
1. What is an ecosystem? Give two examples.
2. What do you mean by environment? Why does man modify his environment?
3. What do you mean by natural environment?

Suggested Answer:

1. It is a system formed by the interaction of all living organisms with each other and with the physical and chemical factors of the environment in which they live, all linked by transfer of energy and material. Ex: Pond, ocean.
2. The place, people, things and nature that surround any living organism is called

environment. Our needs are increasing day by day so man modifies his environment for his needs and sometimes even destroy our natural surroundings.

3. Land (Lithosphere), water (Hydrosphere), air (Atmosphere), plants and animals (Biosphere) comprise the natural environment.



III. Match the following:

1	Environer	a	Living organisms
2	Biotic	b	Narrow zone of earth where land, water and air interact
3	Biosphere	c	camel
4	Desert ecosystem	d	Blanket of air that surrounds our earth
5	Atmosphere	e	Neighbourhood

Suggested Answer:

1	Environer	e	Neighbourhood
2	Biotic	a	Living organisms
3	Biosphere	b	Narrow zone of earth where land, water and air interact
4	Desert ecosystem	c	camel
5	Atmosphere	d	Blanket of air that surrounds our earth

IV. In the crossword table given below, some words are hidden. They are all about environment and are to be found horizontally and vertically. The clues are given below:

L	E	V	E	C	O	S	Y	S	T	E	M
I	P	X	F	D	O	G	R	T	Z	X	E
T	H	Y	A	H	D	K	C	I	B	E	G
H	A	M	U	M	O	X	A	G	R	N	R
O	N	A	T	U	R	A	L	E	I	E	A
S	T	C	A	I	N	T	T	Q	D	E	V
P	O	B	T	M	Z	L	U	G	G	M	I
H	X	S	E	M	L	A	S	H	E	N	T
E	S	S	B	H	F	N	N	L	G	A	Y
R	V	V	E	R	P	D	L	A	N	I	G
E	R	B	R	G	O	L	R	I	V	E	R
I	W	H	E	E	L	X	Z	E	B	R	L

ACROSS:

- Interaction of living organisms with each other and the environment.
- This invention helped develop trade.
- A source of water.

4. A component of environment.

DOWN:

1. A force that holds the atmosphere to the earth.
2. A source of mineral wealth.
3. An abiotic component.
4. A human made component.

Suggested Answers:

L	E	V	E	C	O	S	Y	S	T	E	M
I	P	X	F	D	O	G	R	T	Z	X	E
T	H	Y	A	H	D	K	C	I	B	E	G
H	A	M	U	M	O	X	A	G	R	N	R
O	N	A	T	U	R	A	L	E	I	E	A
S	T	C	A	I	N	T	T	Q	D	E	V
P	O	B	T	M	Z	L	U	G	G	M	I
H	X	S	E	M	L	A	S	H	E	N	T
E	S	S	B	H	F	N	N	L	G	A	Y
R	V	V	E	R	P	D	L	A	N	I	G
E	R	B	R	G	O	L	R	I	V	E	R
I	W	H	E	E	L	X	Z	E	B	R	L

Link for image used in this asset:

- Animals- <https://pixabay.com/vectors/animal-bear-collection-silhouettes-1297864/>
- Land- <https://pixabay.com/vectors/grass-earth-lawn-environment-soil-575728/>
- Mountain- <https://pixabay.com/illustrations/mountain-icon-sign-design-symbol-1849091/>
- Barter system- <https://pixabay.com/photos/asian-bag-brown-buy-color-2752/>
- Biosphere- <https://pixabay.com/photos/walk-man-dog-animal-forest-2670512/>
- Lithosphere- <https://pixabay.com/photos/sauerland-germany-landscape-nature-4126916/>
- Atmosphere- <https://pixabay.com/photos/dandelion-umbrella-flying-blow-4186350/>
- Hydrosphere- <https://pixabay.com/photos/lake-sunset-rocks-bank-conifers-1802337/>

Time to teach	Asset Type	Theme	SubTheme
10 Minutes	Assessments	Resources	Natural and Human made resources , Natural and Human made resources

12. MS_Summary - Environment

Summary - Environment

Note for the teacher: - The teacher may summarise the discussion on 'Environment using the PPT. At each click the teacher may encourage or prompt the students to contribute their points for the summary, which s/he may write down on the black/white board using a similar Graphic Organiser (GO).

In this chapter we have discussed: -

1. the Environment has 3 components, viz., Natural, Human, and Human Made;
2. the Natural component has 4 spheres, viz., Lithosphere, Hydrosphere, Atmosphere, and Biosphere;
3. the Natural component refers to both biotic and abiotic conditions;
4. the Human made components include buildings, parks, bridges, roads, monuments, and industries;
5. the Human components include individual, family, community, religion, educational, economic, and political situation;
6. the relation between the living organisms, as well as the relation between the organisms and their surroundings form an ecosystem;
7. the Ecosystem could be a large rain forest, grassland, desert, mountains, pond, lake river, or ocean.

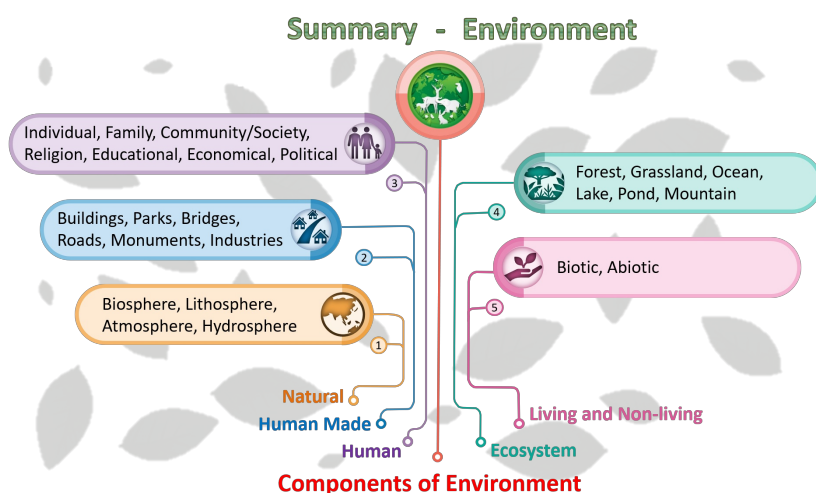


Image Sources / Reference:

1. Plant - Plant - https://www.freepik.com/free-vector/environment-concept-illustration_9933449.htm#page=2&query=environment&position=35#position=35&page=2&query=environment (By stories)
2. Wildlife - https://www.freepik.com/free-vector/world-wildlife-day-illustration-paper-style_12428858.htm#page=1&query=environment&position=19 (By freepik)

3. Leaves' background - https://www.freepik.com/free-vector/falling-scattered-green-leaves-backgrounddd_13640684.htm#page=3&query=tree&position=21 (By starline)

Time to teach	Asset Type	Theme	SubTheme
5 Minutes	Main Script	Resources	Natural Environment , Natural and Human made resources , Human Environment, Ecosystem , Conserving Resources , Components of Environment, Natural Environment , Natural and Human made resources , Human Environment, Ecosystem , Conserving Resources , Components of Environment

Master Lesson Plan

Seven Asset Methodology for MLP

What is the purpose of this Master lesson Plan?	This Master Lesson Plan (MLP) prepared by Sri Sathya Sai Vidya Vahini (SSSVV), covers the entire chapter for the given board. The MLP for the chapter given in the textbook is broken down into smaller modules known as assets. Any chapter can be taught using the 7 asset types in SSSVV methodology. Several different assets together complete the entire chapter. Depending on the requirement, each asset is supported by teaching aids such as animated presentation, audio, video, and learning aids such as worksheets. The MLP is for the teacher's preparation and the teaching aids are for use in the classroom.
How to use it?	You can prepare for your class with this MLP by following 3 simple steps: 1. Read your textbook; 2. Go through the information given in the assets (document & multimedia); 3. Prepare your teaching notes. Great! Now you are ready to transact the chapter.
Duration	Kindly note the duration given for each asset. Due care has been taken in planning the assets, to ensure the chapter is completed within the time specified by the Board. Note: Preparation time is not included in the asset duration. The teaching time depends on the duration of the teaching aids and is not impacted by the length of the MLP.
What is a 'Main Script' (MS) Asset?	The Main Script asset is there for explaining the main concepts of the chapter clearly. The information given in the textbook is simplified, organised and structured to give more clarity. Additionally, you may find a video or mnemonics or a graphic organiser to deepen the understanding of the concept.
How to teach using the MS asset?	Please use the blackboard, slides and interaction to develop the concept.
What is an 'Inquisitive Questions' (IQ) asset?	The Inquisitive Questions asset uses questions to promote higher order thinking like the n^{th} why, what-if, new perspectives, cause-effect, and others, creating curiosity.
How to teach using the IQ asset?	You may use the questions to connect with the students, encourage exploration to engage them in the learning process. You may allow multiple responses and instead of rejecting any of the responses, ask why, before revealing the suggested answer or hints.
What is a 'Day to day Relevance' (DD) Asset?	The Day to Day Relevance asset helps students understand the practical relevance of every topic, making them eager participants in the classroom. If students connect the concepts to their environment, they would learn meaningfully without dislike or simply memorizing for exams.

How to teach using the DD asset?	You may use the asset by asking questions about their experience and use it to establish why they are learning the topic. If necessary you may substitute with a recent or local example.
What is an 'Interesting Aside' (IA) asset?	The Interesting Aside asset uses attention grabbing titbits or anecdotes to bring joy and satisfy the child's hunger to know more. This is a quick/short asset intended to bring attention back to the main concept being taught.
How to teach using the IA asset?	You may use this asset to give a piece of interesting information relevant to the topic, without prolonged explanation/discussion. You may suggest appropriate books for further reading.
What is a 'Suggested Activity' (SA) Asset?	The Suggested Activity asset provides a detailed step by step procedure for the teacher to conduct a hands-on activity. This promotes Activity Based Learning.
How to teach using the SA asset?	You may use this asset to energise your students to learn by doing simple, fun-filled activities based on the topic. The asset includes - preparation, activity, and follow-up. You may engage the students in the preparation and follow-up stages to develop collaboration and responsibility. You could try it once, yourself, before the actual delivery to be more comfortable with it. Note: The duration mentioned in the asset is usually for the activity part only.
What is a 'Value Content' (VC) Asset?	The Value Content asset integrates Universal Human Values (such as empathy, inclusivity, respect for nature that translates into responsible behaviour) seamlessly into the curriculum, as the "End of education is character".
How to teach using the VC asset?	You may use this asset to engage with the students to bring out their innate values and connect with the intrinsic values in the topic/concept. The asset includes pointers on the specific pedagogical technique followed.
What is a 'Questions to Assess' (QA) asset?	The Questions to Assess asset uses an interactive approach to check learning of different types of learners, and provides feedback to the teacher for appropriate action. The questions cater to all the levels of Bloom's Taxonomy. Questions from 'Apply' level and above enable students to reflect on their learning.
How to teach using the QA asset?	You may go through the slides to understand its flow and know when to click for the answer (slides include suggested answers). While presenting in the class, you may display the question and encourage multiple responses, before revealing the answer. In some cases, this asset may include extra questions/worksheet that can be given as homework.