APPENDIX – I
INSTRUCTIONAL MATERIAL FOR IMPLEMENTING
OUTDOOR ENVIRONMENTAL EDUCATION
(DEVELOPED BY THE INVESTIGATOR)

Instructional Plan-1

Topic: Unique features of trees

Outdoor Activity: Have you ever met a tree?

Instructional Setting: School garden

Instructional Objectives: At the end of this instructional plan students will be able to

1. Enumerate the names of trees planted in the surroundings.
2. Enumerate unique features of trees.
3. Enumerate physical traits of trees.

Entry Behavior: Students have knowledge about the different parts of tree.

Support Material: Drawing paper, board, pencils, crayons, colored markers, and bag (to keep material in).

Instructional Program: Investigator will take students to a school garden where there are lots of trees. She will ask students “have you ever met a tree?” Investigator will listen as each child will share the kind of trees he/she has seen.

Investigator will explain students that they will have to become scientist who observes and studies a tree to learn what special characteristics it has then they will have to draw and write about any one tree in the garden they like. Students will be made to sit in the garden with their drawing board, pencils, crayons, colored markers
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etc. They will draw, color and write about their tree. After they finish, each student will be told to introduce his or her tree to other students. At the end, investigator will tell the names of trees in the school garden and discuss their physical traits.

**Importance:** The students will become aware of different trees in the school garden. They will be able to explain their characteristics.

**Home Assignment:** Students will be told to prepare a list of trees around their house and write their characteristics.

**Instructional Plan -2**

**Topic:** Importance of trees.

**Outdoor Activity:** Hug a tree

**Instructional Setting:** School garden

**Instructional Objectives:** At the end of this instructional plan students will be able to

1. Engage in non visual, intimate encounter with trees.
2. Develop love for trees.
3. Explain the importance of trees.

**Entry Behavior:** Students have knowledge about the names and physical traits of trees in the school garden.

**Support Material:** Blinds folds.

**Instructional Program:** Students will be taken to school garden ground where there are lots of trees. Students will be paired for this activity. In pairs, one student will be blind folded. The blind folded student will be the tree hugger.

The tree hugger will be lead to the tree by other student and then will be placed next to a special tree. The tree hugger will touch the tree and try to memorize its shape, size, location, texture etc. The
tree hugger student will be lead back to the starting point, will take his/her blind fold off and locate his/her tree. Students will be swamped and other student will be blind folded.

At the end investigator will explain that trees help us breathe and provide a home for quite a few diverse kinds of animals and insects. They are the largest and longest living organisms on the earth. Trees are effectively the lungs of the environment. They take much of carbon dioxide from the atmosphere and release oxygen via photosynthesis. Further, dead trees that get buried in soil eventually provide fossil fuels like coal, gasoline products, etc. Among all, trees have an indisputable role in bringing rain to earth. Moreover, they provide a cover over the top surface of earth preventing excessive heating up by solar rays.

**Importance:** Student will have actual contact with living things as there is need to allow children to develop their biophilia, their love for the Earth, before we ask them to academically learn about nature and become guardians of it.

**Home Assignment:** Students will be asked to write a paragraph on topic “What will happen if there are no trees left on the earth?”

**Instructional Plan-3**

**Topic:** Natural orchestra

**Outdoor Activity:** Make music with nature

**Instructional Setting:** Forested area

**Instructional Objectives:** At the end of this instructional plan students will be able to

1. Have creative engagement with the nature.
2. Develop a loving relationship with the natural world.
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**Entry Behavior:** Students know the meaning of word ‘orchestra’ and have seen orchestra in marriage parties and functions.

**Support Material:** Small pieces of wood, sticks, stones, dry branches, cones, blades of grass, hay etc.

**Instructional Treatment:** Investigator will take students to forested area. Every student will be told to be creative and find a musical instrument in woods which will make a characteristic sound and has to be made only from natural substances (e.g. clap with sticks or stones, crackle with dry grass or cones). After the collection every student will introduce his/her own musical instrument and sound that it makes. The orchestra will be played with different kinds of songs etc. To conclude investigator will tell students that they should respect nature and look for objects that are on the ground and not living which can be used in different ways.

**Importance:** This group activity is a creative engagement with nature. Children will be connected to the natural world outside their doors.

**Home Assignment:** Students will be told to collect leaves, rocks, twigs and other interesting things they find outside. Use clay to put the pieces together to make a cool animal.

**Instructional Plan-4**

**Topic:** What a wonderful leaf!

**Outdoor Activity:** Leaf art project

**Instructional Setting:** Fish park, Gurdaspur

**Instructional Objectives:** At the end of this instructional plan students will be able to

1. Learn that leaves are diverse in many ways such as shape, color, texture, and size.
2. Enumerate different features of leaves.

3. Enumerate different functions of leaves.

**Entry Behavior:** Students have knowledge that leaf is a part of plant and is of green color.

**Support Material:** Bag, leaves, crayons, markers, pencil, gum, and paper.

**Instructional Treatment:** Students will be taken for a walk through the local park. Investigator will point out to students, leaves of different colors, shades, textures and sizes and tell them to collect different types of leaves in a bag. After returning to school investigator will help students to sort and separate leaves of different colors. Students will be told to make use of their imagination and create a rainbow of leaves or, glue a row of leaves onto the paper and decorate them as cars, drawing a street beneath them. Students will be told that they have endless possibilities.

Investigator will ask students to look at the leaves they have collected and ask them to describe some of the different features they see. She will encourage them to compare the leaves. Ask questions to help prompt their thinking. For example, can they find a leaf with a smooth edge? Are there others that do not have smooth edges? What words would they use to describe those edges?

Investigator will talk about the function of leaves on trees and plants. Explain that plants make their own food using energy from the sun. As part of making food, they put oxygen into the air. Since we need oxygen to breathe, this is one reason that it is important to care for trees and plants around us. She will remind children that just because some animals eat certain kinds of leaves, which does not mean that they are safe for everyone to eat. There are some leaves that they buy at the grocery store or grow in a garden that are safe to eat,
but they should never eat a leaf they find without being told that it is safe to eat.

**Importance:** Students will learn that leaves play an important role in nature. They will get an idea about different colors, shapes, textures, and sizes of leaves and develop an appreciation for the nature.

**Home Assignment:** Students will be told to create a “leaf journal” to watch how the leaves on a tree or plant near their house change through the seasons. Select a tree or other plant to observe. At various times (perhaps the 1st and 15th of every month), draw a picture or take a photograph of the leaves on a plant. Put them together into a book and see how the leaves have grown and changed through the seasons.

**Instructional Plan-5**

**Topic:** Save the earth

**Outdoor Activity:** Tree plantation

**Instructional Setting:** School garden

**Instructional Objectives:** At the end of this instructional plan students will be able to

1. Discuss the process of plantation.
2. Enumerate the names of trees needed to be planted in our surroundings.
3. Suggest the methods to grow more trees.

**Entry Behavior:** Students know that trees create shade and provide home for animals. They have knowledge that gardener plants trees.

**Support Material:** Seedlings of different varieties, tools for digging the soil and a watering bucket.

**Instructional Program:** Investigator will bring seedlings of different varieties from a nursery. Student will be taken out in the garden with
essential instruments used for plantation. She will tell students to prepare the site by cleaning the site, cutting the grass and pulling the weeds.

Students will be told to mark the zones where trees are to be planted. A hole wide and deep enough to cover the root system will be dig by students with the help of the school gardener. Students will lay the roots of seedlings straight down in the hole and cover it with the soil. Investigator will guide students to tamp soil firmly with toes to remove air pockets.

The students will be explained that the simple act of planting a tree can save the earth. It helps the environment in many ways and can solve many environmental problems. So they should plant more and more trees and take care of trees planted by them by watering them regularly and try to stop cutting of trees.

**Importance:** Students will learn that they can save the earth by planting trees. They will recognize the need of plantation.

**Home Assignment:** Investigator will tell all students to plant at least one tree near their house and take care of it.
**Instructional Plan -6**

**Topic:** Ecosystem

**Outdoor Activity:** Field trip to a pond

**Instructional Setting:** Pond side

**Instructional Objectives:** At the end of this instructional plan students will be able to

1. Enumerate the basic needs of all animals.
2. Enumerate the parts of ecosystem.
3. Explain the term ecosystem.
4. Create an ecosystem.

**Entry Behavior:** Students know that the basic needs of all human beings are food, shelter, and oxygen.

**Support Material:** Pickle jar, nets, strainers, pond water and magnifying glass (to observe the creatures in the jar).

**Instructional Program:** At the beginning of the lesson, investigator will ask the students what they need to survive in this world and ask the students if only human being need these basic things for survival. Investigator will explain that all animals also need these things for survival.

Investigator will take the students on a field trip to a nearby pond and have them look in to the water. Students will be asked about the kind of creatures they see? Students will use nets, strainers, and buckets to collect a sample of the pond water and a small plant. Investigator will help them and have the students use safe behavior near and around the pond.

Students will put pond water in pickle jar and view the creatures in the jar with a magnifying glass and record what they find. Investigator will ask are there any insects in the jar? Have them keep
track of the number of each creature in the jar. She will ask the students what kind of information they have found out and ask probing questions to make the students realize that they are looking at an ecosystem. Students will be told to predict what will supply the creatures in the jar three basic needs and have the students share their predictions.

Investigator will explain that the pickle jar is an ecosystem that will supply the organisms that now live there with food, shelter, and oxygen and let the students keep track of the populations in their jar and observe their behavior.

**Importance:** This activity is used to teach students about the environment that all living creatures live in. Students will learn about the parts of ecosystem and will be able to create an ecosystem themselves.

**Home Assignment:** Students will be told to let the jar sit on a shelf and watch what happens over an extended period of time and write this in a paragraph form.

**Instructional Plan -7**

**Topic:** Soil profile

**Outdoor Activity:** Visit to a construction site

**Instructional Setting:** Construction site

**Instructional Objectives:** At the end of this instructional plan students will be able to

1. Understand the meaning of soil profile.
2. Enumerate various components of soil.
3. Relate various components of soil to plant growth.
4. Prepare a soil profile.
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**Entry Behavior:** Students have knowledge that soil is a medium that supports growth of plant.

**Support Material:** small jar with narrow sides, gravel (bedrock), soil sample from the bottom of a deep hole (subsoil), and soil sample from a garden (topsoil).

**Instructional Program:** Students will be taken to a construction site. Investigator will explain that digging holes is the first thing that construction workers do when they build houses or buildings. Investigator will ask students to look down in a deep hole and ask, “Does the soil on the sides and down at the bottom look the same as the soil on top? Why not?”

Investigator will explain that a normal soil profile consists of three layers: topsoil, subsoil, and bedrock. Topsoil is the top layer. It is generally looser than the lower layers. It is made up of the smallest grains of rocks and minerals. The topsoil layer is usually darker in color because it contains the most dead and decayed organisms. These provide nutrients that plants need for growth. This is where plants can absorb water, nutrients, and air. Subsoil is the layer below the topsoil. It is usually lighter in color because it has less living and once-living organisms. It is denser and grittier than the topsoil. It sometimes has larger rocks or pebbles mixed with small particles. Minerals in this layer are not easy for plants to use. Plants grow poorly in subsoil. Bedrock is the lowest layer or the solid rock that lies underneath the soil. It is the parent material from which much of the soil originally formed. Bedrock can be within a few inches of the surface or many feet below the surface.

Investigator will tell students to collect different soil samples from the bottom of a deep hole, from a garden, and gravel and review with students what they observed in their soil samples. They will record color, texture, and kinds of materials they have seen. Students
will make soil profile in a glass jar by placing gravel in bottom of jar, then a layer of subsoil and a layer of top soil on top.

**Importance:** This activity will help students understand the components of soil and observe the basic components of soil and relate the components to the plant growth.

**Home Assignment:** Investigator will tell students to place samples of each type of soil in small bowls at home and use their fingers to feel and compare the textures of each. Add water to the samples and find out which soil can hold water?

**Instructional Treatment – 8**

**Topic:** Importance of sunlight for plants

**Outdoor Activity:** Experiment performed on plants.

**Instructional Setting:** School garden

**Instructional Objectives:** At the end of this instructional plan students will be able to

1) Explain the importance of sunlight for plants.

2) Define photosynthesis.

**Entry Behavior:** Students have knowledge that plants need water and soil to survive.

**Support Material:** Shoe box and a heavy stone.

**Instructional Treatment:** Investigator will tell students to take a shoe box and put it on top of a very green grassy area and keep a heavy stone on top of the box so that the box stays stationary. Students will be told to, take a quick peek under the box every day for a week to see what is happening to the grass. After a week, Investigator will remove the box and tell students to look at the grass and record the changes.
Investigator will explain that people like you and I need a few things to live — we need healthy food, we need water, and we need air. Plants, though, are a little different than you and me. They need food and water, but they also need sunlight to live. Plants use sunlight as a way to make energy to grow. Plants need sunlight in order to grow properly. They use light energy to change the materials - carbon dioxide and water into food substances (sugars). This process of food productions is called photosynthesis. Only in sunlight can a green plant make food. Most plants need water and sunlight to grow and this is the reason why the grass under the box has lost its color.

**Importance:** Students will learn that if plants do not get sunlight, they will lose their green color and eventually die, they cannot survive in the absence of sunlight.

**Home Assignment:** Students will be told to perform another fun and easy experiment at home. Investigator will tell students to take three potted plants of same height. Keep one plant outdoors and second plant indoors where no sunlight can enter and the third plant in a room near window. Water all three plants for two weeks. After two weeks students observe the three plants and record the changes.

**Instructional Plan – 9**

**Topic:** Liquid waste

**Outdoor Activity:** Experiment on potted plants

**Instructional Setting:** School garden

**Instructional Objectives:** At the end of this instructional plan students will be able to

1. Explain the term 'Liquid waste'.
2. Enumerate the sources of liquid waste.
3. Enumerate the effects of liquid waste.
Entry Behavior: Students have knowledge about the various sources of waste.

Support Material: Two healthy potted plants, tap water, and soapy water left after washing clothes.

Instructional Treatment: Investigator will explain harmful effects of liquid waste with the help of an activity. She will take two healthy potted plants and keep them in open and assign duties to students to water one with tap water and the other with soapy water for two weeks. After two weeks students will be told to tabulate their results and draw conclusions.

Investigator will explain that the plant which was watered by soapy water has drooped while the other one which was watered by tap water is healthy so we can conclude that the soapy water has harmed the health of the plant. It will be further explained that industries produce a lot of chemically impure water. Harmful chemicals are also found in liquid cleaners, polishes, and paints. Thousands of different natural and synthetic chemicals are used in the chemical industry to make pesticides, plastics, pharmaceuticals, pigments, and other products that are used in everyday life. Many of these chemicals are highly toxic. Exposure to them in very low concentrations can cause cancer.

Importance: Students will become aware of the problem of liquid waste and its effects on plants and human beings.

Home Assignment: Students will be told to suggest ways to reduce liquid waste and write it in their notebooks.

Instructional Plan – 10

Topic: Pollution

Outdoor Activity: Visit to a factory

Instructional Setting: Factory at Verka Milk Plant, Gurdaspur
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**Instructional Objectives:** At the end of this instructional plan students will be able to

1. Define pollution.
2. Explain the meaning of pollutants.
3. Learn about different sources of pollution.

**Entry Behavior:** Students have seen smoke coming out of factories.

**Support Material:** Copy, pencils, and water bottles.

**Instructional Treatment:** Students will be taken to a factory situated on the main road. Investigator will explain that pollution is the presence of impurities in the environment. These impurities are called pollutants. She will show the gases released by factory and explain that these gases contain harmful gas, when we breathe in this polluted air, it can cause diseases like asthma, T.B., and cancer. Harmful chemicals released from factories mix with air and fall down as acid rain. It can cause harm to water bodies, animals, plants, and buildings. So harmful gases produced in factories should be made free of their pollutants content before releasing into air.

Investigator will then show the polluted water releasing from the factory and explain that this water contains harmful chemicals. When this water is used to water plants it can harm the health of plants. Fish and other animals living in rivers can die due to polluted water and if we eat such fish we may get sick. So factories should not be allowed to release polluted water into rivers. These harmful chemicals should be removed before water is released.

**Importance:** Students will learn that pollution is the major threat to the environment.

**Home Assignment:** Investigator will ask students to write few lines about what actions should be taken to stop pollution.
Instructional Plan – 11

Topic: Effects of pollution

Outdoor Activity: Play on pollution

Instructional Setting: School compound

Instructional Objectives: At the end of this instructional plan students will be able to

1. Explain the effects of pollution on fishes.
2. Explain the effects of pollution on plants.

Entry Behavior: Students know the meaning of pollution and pollutants.

Support Material: Costumes of pollutants, fishes, flowers, trees, a written script (to be learnt by participants), and a music system.

Instructional Program:

Preparation for the dance will start fifteen days before the show. Investigator will take help of dance and music teachers. Costumes of pollutants, fishes, flowers and trees will be arranged.

Script of Drama.

Act- I

Child - Mother, why we have come here?

Mother - Child, this is the place where I use to play and this pond use to be full of fishes and the park was full of trees and beautiful flowers.

Child - Then mother what happened, where have they disappeared?

Mother - Pollution has killed them, my child.

Act - II (Flash back)

Five girls wearing costumes of fishes will come on stage and dance on music. Pollutants wearing black dress will enter and fight with fishes and kill them. Four children will come on stage as trees and dance.
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Five girls wearing costumes of flowers will enter and they will join the trees and dance on music. Pollutants will come and fight with flowers and trees and kill them.

At the end all the children come on stage holding their hands and give message in the form of a song “Save the world and make it a better place”.

**Importance:** Students will get an overall understanding of the impacts and effects of pollution on the environment. They will develop an attitude of protecting the world.

**Home Assignment:** Students will be told to write their ideas on how they can save the world and make it a better place?

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**Instructional Plan – 12**

**Topic:** Air pollution

**Outdoor Activity:** Activity explaining the detection of air pollution

**Instructional Setting:** School garden

**Instructional Objectives:** At the end of this activity, the students will be able to:

1. Define air pollution.
2. Explain the causes of air pollution.
3. Learn the methods to control air pollution.
Entry Behavior: Students know that we need to prevent pollution.

Support Material: Vehicle, cut pieces of clothes, vaseline, and thread.

Instructional Program: Investigator will ask students to tie a piece of cloth pasted with vaseline in the area of school garden where there are lot of trees. Students will be told to tie another piece of cloth on a vehicle which is parked outside the school on road. Then after two hours students will be told to bring both the clothes and note the difference between them. Students will note that the cloth which was tied on tree was clean while the other one has dust on it and has turned black. The students will be asked for the reasons behind.

Investigator will explain that this is because of air pollution which means the presence of one or more unwanted substances in air. It is caused by both human and natural sources. Human sources are traffic, agriculture and industry. Natural sources are dust storms and volcanic eruptions. Air pollution has negative impacts on humans, animals and plants, and on air quality. They have seen the effect of air pollution on cloth which was kept on the road just for two hours. Students will be asked for the actions, which can increase or decrease the air pollution. Different methods of controlling air pollution like removing the hazardous material before it is used, removing the pollutant after it is formed, or altering the process so that the pollutant is not formed or occurs only at very low levels will be discussed.

Importance: The students will learn that air pollution is a major threat to the environment. They will discover the methods to control the air pollution in a better way.

Home Assignment: Students will be told to write interesting slogans on air pollution.
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**Instructional Plan – 13**

**Topic:** Non point sources of water pollution

**Outdoor Activity:** Preparation of model showing non point sources of water pollution

**Instructional Setting:** School playground

**Instructional Objectives:** At the end of this instructional plan students will be able to

1. Understand how easily non point sources can pollute our environment.
2. Differentiate between point and non point sources of water pollution.

**Entry behavior:** Students know about different sources of pollution.

**Support System:** Large clear container, imitation grass doormat, one cup of dirt and a container to keep it, food colors, water source, spray bottle, cup with holes in the bottom, and a regular cup.

**Instructional Treatment:** Investigator will explain the concept of non point sources of pollution with the help of an activity. Investigator will keep the large plastic container on the ground and fill it the with two inches of water and drape the doormat over the side of the container to create a large grass hill and explain to the students that this is hill on a farm and many animals like to drink from the pond at the bottom. In order to grow crops on the hill, the farmer uses tractor and other machinery as well as pesticides and fertilizers.

Dirt will be added to hill to represent the planting of the farmer's crops, food colors will be used. One color at a time to represent the addition of chemicals, pesticides, and leakage of oil from tractors. Students will be asked what they think these chemicals will do to the water when it rains. Spray bottle will be used to imitate a light rain by spraying it directly onto the hill. Large cup with water will be filled with water and poured into cup with hole in the bottom to imitate a rainstorm. Investigator will ask students can they tell the source from where the pollution is coming. Students will not be able to specify the source. She will explain to students that non point source pollution...
means when we can not tell where it is that the pollution is coming from.

Non point sources of water pollution are scattered or diffused, having no specific location where they discharge into a particular body of water. Non point sources include runoff from farm fields, golf courses lawns and gardens, construction sites, road, streets and parking lots. In contrast, factories, power plants, sewage treatment plants, underground coal mines, and oil wells are classified as point sources, because they discharge pollution from specific location, such as drain pipes ditches or sewer outfalls.

**Importance:** Students will become aware about the problem of non point sources of water pollution and will develop attitude of protection of the environment.

**Home Assignment:** Investigator will give one copy of puzzle to each student. She will tell them to solve it and write about activities which cause pollution.
Instructional Plan – 14

**Topic:** Water treatment plant

**Outdoor Activity:** Visit to water treatment plant

**Instructional Setting:** Verka Milk Plant, Gurdaspur

**Instructional Objectives:** At the end of this instructional plan students will be able to

1. Explain the working of water treatment plant.
2. Enumerate the uses of water treatment plant.

**Entry Behavior:** Students know that the waste water from factories pollute our environment.

**Support Material:** Pencils, copies, and water bottles.

**Instructional Treatment:** Students will be taken to Verka Milk Plant at Gurdaspur to show water treatment plant. Investigator will explain that they may or may not realize it but, water needs to be cleaned and washed. There is a name for washing the water. It is called water treatment. Water treatment is the process that water goes through so that it can be of better quality to be used. It is made to be safer for humans to drink and for industries to use with a small to none environmental problem.

Investigator will explain the working. She will show the different parts and explain that first step for water purification is oxidation a process which clarifies the water. Water is splashed by machine the oxygen in air is absorbed by affluents. Stable product of affluents is produced.

Investigator will show rectangular sedimentation basins and explain that water after the oxidation basin enters the sedimentation basin. It is a large tank with slow flow, allowing impurities to settle to the bottom. Sedimentation basin outflow is typically over a weir so only a thin top layer - furthest from the sediment - exits. The amount
of impurities that settles out of the water is dependent on the time the water spends in the basin and the depth of the basin.

**Importance:** Students will become aware of need and importance of water treatment plant.

**Instructional Plan – 15**

**Topic:** Noise pollution

**Outdoor Activity:** Collage making

**Instructional Setting:** School playground

**Instructional Objectives:** At the end of this instructional plan students will be able to

1. Define noise pollution.
2. Explain the causes of noise pollution.
3. Enumerate the effects of noise pollution.
4. Learn different methods by which noise pollution can be controlled.

**Entry Behavior:** Students have heard noise created by loudspeakers.

**Support Material:** Drawing sheets, drawing boards, gum, and cuttings of various sources of noise pollution.

**Instructional Treatment:** Investigator will explain that noise pollution is caused by any unwanted sound. Noise can come from many sources like traffic (cars, trucks, buses, etc.), airplanes, jets, crackers, music from radios, TV's and loudspeakers. Students will be told to collect pictures and cuttings of different sources of noise pollution from magazines and newspapers. One week time will be given to them for this activity.
After a week, investigator will make all the students sit in the open garden with their drawing boards, sheets and cuttings. Students will paste pictures and prepare collage.

At the end investigator will explain the effects of noise pollution on human beings and the methods of controlling noise pollution will be discussed.

**Importance:** Students will be sensitized towards the problem of noise pollution and its control.

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**Instructional Plan – 16**

**Topic:** Biodegradable and non biodegradable material

**Outdoor Activity:** What does nature decompose?

**Instructional Setting:** School playground

**Instructional Objectives:** At the end of this instructional plan students will be able to

1. Explain that nature does not decompose everything.
2. Enumerate the material which can be decomposed from our surroundings.
3. Enumerate the material which can not be decomposed from our surroundings.
4. Differentiate between biodegradable and non biodegradable material.

**Entry Behavior:** Food left out in summers does not remain fit for eating.

**Support Material:** Big cardboard box, enough soil to fill, a small rock, scissors, newspaper, a stick about 25cm long, assorted litter-including plastic bag, polystyrene foam, leaves, food scraps, aluminum foil, and a small piece of glass.
**Instructional Treatment:** Investigator will tell students to cut, crush, tear, or break the litter into small pieces. Students will be told to place enough soil to fill the cardboard box until it is about one third full. Litter and other materials will be scattered over the soil. Litter will be covered with soil until the box is almost full. Water will be sprinkled until soil is thoroughly dampened. Box will be placed in a warm place. Water will be added to keep it moist.

After four week the students will be told to empty the box into open sheets of newspaper. Plastic rulers will be used to spread the contents of the litter box over the newspaper. Students will be asked to record the contents of the soil.

Investigator will explain that material like leaves, food scraps, stick and newspaper are bio degradable as they have decomposed by the activity of bacteria. While material like aluminum foil, plastic bag and polystyrene foam have not decomposed and they are called non biodegradable. Adding these materials to soil can cause soil pollution.

**Importance:** Students will become aware that plastic bags, polystyrene etc when added to soil does not decompose and can cause soil pollution.

**Home Assignment:** Students will be told to write a letter to government officials in their city to ban polythene bags.

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**Instructional Plan – 17**

**Topic:** Compost

**Outdoor Activity:** To prepare organic manure

**Instructional Setting:** School playground

**Instructional Objectives:** At the end of this instructional plan students will be able to

1. Explain the meaning of compost.
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2. Enumerate the compostable material in school and at home.

3. Explain the process of composting.

4. Enumerate the uses of organic manure over chemicals.

**Entry Behavior:** Students know that nature decomposes leaves and plants.

**Support Material:** Compost bin, brown leaves, grass, and water.

**Instructional Treatment:** Investigator will explain about the preparation of compost to students. Students will prepare compost. Investigator will help them whenever required. A spot to set up compost bin will be selected. It will be out of way but convenient to reach with plenty of room to work around. Compost bin will be built in layers. To start with a layer of brown leaves about six inches thick will be spread. For green stuff a layer of grass clipping a few inches thick will be added. Layers will be mixed a little. Then a shovelful of soil will be sprinkled to add microorganism to the bin. Students will be told to spread left over food over the soil layer. Each layer will be given good sprinkling of water to wet the ingredients. Layers will be repeated until bin is full.

Investigator will explain that the compost is great for mixing into the soil, when we are planting a new plant. Compost mixed with some sand makes a super potting soil for growing plants in containers. It is better than chemical fertilizers, as continuous and excessive use of chemical fertilizers leads to a loss of organic humus, a deterioration of the fertility of top soil and a decrease in the porosity.

**Importance:** Students will learn about the preparation and use of compost. They will be able to utilize waste material.
Instructional Plan – 18

**Topic:** Natural resources

**Outdoor Activity:** Nature walk

**Instructional Setting:** Forested area

**Instructional Objectives:** At the end of this instructional plan students will be able to

1. Enumerate different natural resources.
2. Explain the importance of natural resources.
3. Suggest the ways to preserve various natural resources.

**Entry Behavior:** Students are aware of the importance of nature for human beings.

**Support Material:** First aid kit, magnifying glass, lunch, and water bottles.

**Instructional Treatment:** Investigator will take students for trekking. Students will be told to bring their lunch and water bottles. Investigator will explain that natural resources occur naturally within environments that exist relatively undisturbed by mankind, in a natural form. Many of them are essential for our survival while others are used for satisfying our wants. Some examples of natural resources include air, wind, atmosphere, plants, animals, wildlife, coal, forestry, soil, water, oceans, lakes, and rivers.

Students will be told to take a nature walk. Try to notice as many different types of trees, bugs, and birds as they can. Students will be encouraged to use a magnifying glass to get a closer look at anything that interests them. In addition, it will be explained to children that they can use many senses to experience nature – not just vision. They will be told to sit for a few moments in silence, listen to the natural sounds around them, and try to describe or identify them.
After returning, investigator will discuss importance of different natural resources and ways to preserve various natural resources.

**Importance:** The students will come to know about nature and its components and will be sensitized towards it. The students will develop proper attitude towards the protection of nature.

**Home Assignment:** Students will be told to write few lines of their experience about the nature and the feel of nature.

### Instructional Plan – 19

**Topic:** Save water

**Outdoor Activity:** Outing to a nearby park and tell people to save water.

**Instructional Setting:** Fish park at Gurdapur

**Instructional Objectives:** At the end of this instructional plan students will be able to

1. Enumerate various human activities which lead to wastage of water.
2. Suggest the ways by which water can be saved.
3. Make general public aware about the ways by which water can be saved.

**Entry Behavior:** Students have knowledge that lot of water is wasted while washing cars, bathing and washing clothes.

**Support Material:** Posters having save water messages on them.

**Instructional Treatment:** Investigator will discuss with students the different human activities like taking a shower, leaving the water running when washing the dishes, leaving the water running when brushing teeth, watering the garden, washing cars, etc. can lead to wastage of water. Different ways by which water can be saved will be suggested to the students.

An outing will be arranged to a nearby park. Students will be divided into twenty groups (three each). One student in each group
will carry a poster having message of save water on it. Messages will be-

• Water is life, save water, save life.
• Wash car on lawn.
• Have short showers.
• Build rain water tanks.
• Use front loader washing machines.
• Turn off taps completely.
• Water lawns only when needed.
• Have baths instead of showers.
• Follow water restrictions.
• Recycle water.

Students will remain for two hours in the park and explain how to save water to the people present there.

**Importance:** Students will discover the ways by which water can be saved. They will also spread awareness about saving water in general public.

**Home Assignment:** Students will be told to make their family members and neighbors aware about the ways by which water can be saved.

![Whizzy's top water saving tips](image-url)
Instructional Plan – 20

Topic: Solar cooker

Outdoor Activity: Demonstration of working of solar cooker

Instructional Setting: School playground

Instructional Objectives: At the end of this instructional plan students will be able to

1. Explain the working of solar cooker.
2. Explain that solar energy can be used for various purposes.
3. Discriminate between exhaustible and non exhaustible natural resources.

Entry Behavior: Students know that solar energy is the energy that we get from sun.

Support Material: Uncooked rice and pulses, black steel boxes, and a solar cooker.

Instructional Program: Investigator will tell students to bring uncooked rice and pulses from their home one day before. On the day investigator will take student in school playground where solar cooker will be kept. She will explain the working of solar cooker to the students.

Students will be told to keep the uncooked rice and pulses in black steel boxes and keep the boxes inside the solar cooker. Investigator will tell students to keep an eye on the direction of sun and change the direction of solar cooker accordingly. After the food is cooked it will be served to students.

Investigator will explain that solar energy traps heat which can be used for various purposes like solar cooker we can use solar water heater, solar lamps, etc. Solar energy is a non exhaustible natural resource which means it will never finish while kerosene and LPG which one normally use at home for cooking are exhaustible natural
resources. They will finish if not used judiciously. She will further explain solar energy is free of cost while they have to refill LPG cylinders in their home every month which costs a lot.

**Importance:** Students will learn about the uses of solar energy. They will develop an attitude to use exhaustible natural resources with caution.

**Home Assignment:** Students will be told to write few lines on topic 'How to save exhaustible natural resources’ in their notebooks.

**Instructional Plan – 21**

**Topic:** Soil erosion

**Outdoor Activity:** Activity showing soil erosion

**Instructional Setting:** School playground

**Instructional Objectives:** At the end of this instructional plan students will be able to

1. Define soil erosion.
2. Explain the effects of soil erosion on river edges.
3. Explain the methods by which soil erosion can be prevented.

**Entry Behavior:** Students have knowledge that soil is a medium that supports growth of plant.

**Support Material:** Tools for digging the soil, pipe, and a water source.

**Instructional Treatment:** Investigator will explain that the soil erosion can be defined as carrying away of soil by wind and water. She will explain the effect of soil erosion on river edges with the help of an activity.

Students will be told to make a small river on the school ground. They will be given tools for digging; school gardener and investigator will guide them. With the help of pipe, water will be flown
in the river. The pressure of water will be increased and water flowing in river will carry soil with it.

Investigator will explain that this is how soil from the sides of rivers erodes. Each year world loses lot of soil to erosion. Most of the soil is rich, upper layer called top soil which crops need to grow. To avoid erosion by water, embankments are built on the sides of river. Plants also play important role in preventing soil erosion as roots of plants hold the soil and prevent it from carrying away by wind and water. Though erosion is a natural process but people have quickened its pace by cutting trees.

**Importance:** Students will learn about the causes of soil erosion. They will be sensitized towards the problem and its solution.

**Instructional Plan – 22**

**Topic:** Terracing

**Outdoor Activity:** Preparation of a model of terracing

**Instructional Setting:** School playground

**Instructional Objectives:** At the end of this instructional plan students will be able to

1. Explain the term 'Terracing'.
2. Explain the need of terracing.
3. Enumerate the advantages of terracing.
4. Prepare a model of terracing

**Entry Behavior:** Students have knowledge about soil erosion and its effects.

**Support Material:** Tools for digging the soil, pipe, and a water source.
Instructional Treatment: With the help of school gardener a small hill of sand and mud was made on the school ground. Investigator will flow water from the top of hill, lot of soil will come down with water. Students will be told to make small steps on the hill. Investigator will guide them. Again water will be flown and this time less, soil will come down with water. Students will be told to note the difference.

Investigator will explain that a method of conserving soil is to make a series of level plots in the step line fashion on the slope. This method is called terracing. Terracing slows down the water runoff and allows water to soak into the soil. It makes hillsides beautiful, productive, safer and easy to maintain. Terraced hills are more appealing to the eye if they are laid out in interesting shapes. They could be in the shape of several mini gardens surrounded by rock or they could curve around a seating area. If the area has enough sunlight, vegetable or flower garden can be put up there.

Importance: Students will practically learn about terracing and how it prevents soil erosion.

Instructional Plan – 23

Topic: Post office

Outdoor Activity: Visit to a post office

Instructional Setting: Post office

Instructional Objectives: At the end of this instructional plan students will be able to

1. Explain the working of post office.
2. Enumerate the benefits of post office.

Entry Behavior: Students have knowledge that postman distributes letters.
Appendix-I

Support Material: Copy, pencils, and water bottles.

Instructional Treatment: Investigator will explain that a post office is a facility authorised by a postal system for the posting, receipt, sorting, handling, transmission or delivery of mail. Post offices offer mail-related services such as post office boxes, postage and packaging supplies. In addition, some post offices offer non-postal services such as passport applications and other government forms, money orders, and banking services.

Students will be taken to the post office. Students will meet postmaster and other postal assistants. They will be shown the areas where telegrams, letters, and parcels are separated for distribution. Counters where stamps and envelopes are sold will also be shown to the students.

Importance: Young students will become familiar with their surrounding and get an idea of working of a post office.

Instructional Plan – 24

Topic: Police station

Outdoor Activity: Visit to a police station

Instructional Setting: Police station

Instructional Objectives: At the end of this instructional plan students will be able to

1. Explain the role of public services in our lives.
2. Enumerate the various officials working in a police station.
3. Explain the working of police station.

Entry Behavior: Students have knowledge that police men look after the law and order.

Support Material: Copy, pencils, and water bottles.
**Instructional Treatment:** Investigator will explain that a police station is a building which serves to accommodate police officers and other members of staff. These buildings often contain offices and accommodation for personnel and vehicles, along with locker rooms, temporary holding cells and interview/interrogation rooms.

Students will be taken to the police station. They will be explained that police station is headed by an S.H.O. (Station House Officer). He is helped by sub-inspectors and head constables. Students will meet different police officials and ask them about the duties they perform.

**Importance:** Young students will get familiarize with their surrounding and get an idea of the working of police station.

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**Instructional Plan – 25**

**Topic:** First aid

**Outdoor Activity:** Making of first aid box

**Instructional Setting:** School compound

**Instructional Objectives:** At the end of this instructional plan students will be able to

1. Explain the meaning of first aid.
2. Enlist the contents of a first aid box.
3. Prepare a first aid box.
4. Provide first aid when required.

**Entry Behavior:** Students have awareness that accidents occur frequently on roads.

**Support Material:** Cardboard box, sheets for coverings, scissors, bandages, antiseptic cream, antiseptic lotion, cotton wool, and thermometer.
Appendix-I

**Instructional Treatment:** Investigator will explain, “that in spite of precautions accident do take place. A small accident requires immediate attention even before a doctor’s help arrives this is called first aid and for providing first aid we need a first aid box which we will prepare that today”.

Investigator will take a cardboard box and tell students to cover it from all sides with black paper. She will make a cross sign with white paper and paste it on the box and keep the box for drying.

Students will be shown the contents of a first aid box i.e. scissors, bandage, antiseptic lotion, antiseptic cream, cotton wool, and thermometer. Investigator will tell them to put the contents in the box one by one.

Students will perform an activity (for which they will be given prior training) in which basic principles, such as to use an adhesive bandage or applying direct pressure on a bleed and what should be done in emergencies like choking, burns, broken bones will be explained.

**Importance:** Students will learn about the contents of first aid box and how to provide first aid during emergencies.

**Instructional Plan – 26**

**Topic:** Biotic and abiotic components

**Outdoor Activity:** Role-Play

**Instructional Setting:** School compound

**Instructional Objectives:** At the end of this instructional plan students will be able to

1. Enumerate the biotic components of the environment.
2. Enumerate the abiotic components of the environment.
3. Differentiate between biotic and abiotic components.
Appendix-I

Entry Behaviour: Students know the meaning of ecosystem.

Support Material: Dresses of students of different colors, written script (to be learnt by participants), and audio system.

Instructional Treatment: Students will be selected to play the role of a biotic (man, plants, animals) and abiotic (solar radiations, moisture, winds, water, soil) components. Their dresses will be planned accordingly. They will be given dialogues to memorize. The participants will act and explain their role in the ecosystem and in the end, each student will ask—Who am I? Other students will guess and respond. Lastly, the investigator will complete and conclude the role of biotic and abiotic components in the ecosystem. Best role played will be awarded.

Importance: Students will identify biotic and abiotic components of ecosystem and understand their importance.

Instructional Plan – 27

Topic: Herbivores, carnivores, and omnivores.

Outdoor Activity: Play-way activity.

Instructional Setting: School compound

Instructional Objectives: At the end of this instructional plan students will be able to

1. Explain the features of herbivores, carnivores, and omnivores.
2. Differentiate between herbivores, carnivores, and omnivores.
3. Give examples of herbivores, carnivores, and omnivores.

Entry Behavior: Students know the difference between living and non living objects

Support Material: Toys in shape of different animals.
Appendix-I

**Instructional Treatment:** Investigator will plan the seating arrangement of the class in an open space of the school-garden. Several groups, consisting of five students each, shall be formed by random selection. Each group shall take out the heap of toys out of the given toy-box. They will be asked to identify herbivores, carnivores and omnivores and place them separately. They will be asked to speak out the names of the animal and will be asked why they are herbivores? All features of herbivores will be discussed. Same procedure shall be adopted for carnivores and omnivores.

In the end, the investigator will explain in details, the features of herbivores, carnivores and omnivores.

**Importance:** The students will be aware of the differences between herbivores, carnivores and omnivores.

**Instructional Plan – 28**

**Topic:** Food web

**Outdoor Activity:** Acquaint students with food webs in real life

**Instructional Setting:** School playground

**Instructional Objectives:** At the end of this instructional plan students will be able to

1. Explain the term ‘Food Web’.
2. Enumerate various examples of food web existing in nature.
3. Explain what happens when one part of the food web is gone.

**Entry Behavior:** Students have knowledge that a living organism needs food, water, light, air, waste disposal, and environment. There are environmental changes which cause organisms to thrive, become ill, or perish.

**Support Material:** One roll of yarn, name tags for each student, and a marker.
**Instructional Treatment:** The investigator will make a name tag for each student in her class. The name tags will have a variety of animals, plants and insects on them (each name tag being different). To introduce this activity the investigator will discuss with the students how important all animals are to the web of life. After discussion investigator will hand out nametags to all of the students. Students will stand in a circle and the investigator will hold the yarn. Students will observe everyone's nametags and discuss the largest animals in terms of size and food consumption. Investigator will start the yarn at the largest animal (lion) and have the students pass the yarn around going from largest animal down to the smallest insect (maggots, fruit flies, or termites) and then on the plants that the insects will eat. Each student will keep holding the yarn while it gets passed around. Everyone will have a piece of the yarn that is connected to someone else. Students will create a web of life that incorporates large animals, insects, and plants. Students will be allowed to talk about how everyone is connected.

Investigator will have the students experiment with certain animals becoming extinct (they will drop their piece of the yarn). The students will visualize what happens when one part of the food web is gone and all of the animals that are affected by this change in the ecosystem. Students will keep experimenting with different parts of the web being removed.

**Importance:** The students will be able to see visually and learn about different ecosystems and how different animals influence the web of life. By watching certain animals die and the web of yarn fall apart, the students will realize what happens to these animals when they encounter environmental changes that cause them to adapt, become ill or perish.
Home Assignment: Students will collect information about real life examples of how the removal of some animals affects the overall web of life.

Instructional Plan – 29

Topic: Balanced diet

Outdoor Activity: Explanation with the model of a train

Instructional Setting: School compound

Instructional Objectives: At the end of this instructional plan students will be able to

1. Define balanced diet.
2. Identify the ingredients of a balanced diet.
3. Explain the importance of vitamins and minerals in our diet.
4. Learn about the diseases caused because of deficiency of vitamins and minerals.

Entry Behavior: Students know that to grow tall and strong they should eat nutritious food.

Support Material: Model of a train, small packets of pulses, wheat, milk, rice, fruits, and vegetables.

Instructional Treatment: The investigator will explain that a balanced diet must contain carbohydrates, proteins, fats, vitamins, and mineral salts. It must contain these things in the correct proportions. She will further explain the food sources and importance of vitamins, minerals, fats, carbohydrates, and proteins.

She will make all the students sit in the open space and show them a model of a train. Balanced diet will be written on the engine, open boxes depicting coaches will have vitamins, minerals, fats, carbohydrates and proteins written on them. Train will be kept in the
center. Small packets having pulses, wheat, milk, rice, fruits, and vegetables will be given to students. Students will be told to come one by one and keep the packets in the respective coaches of the train.

At the end, diseases like night blindness, rickets, and scurvy caused due to deficiency of vitamins and minerals will be discussed.

**Importance:** Students will learn about the components of balanced diet and their significance.

**Instructional Plan – 30**

**Topic:** Birds are everywhere

**Outdoor Activity:** Looking for evidence of the bird’s presence.

**Instructional Setting:** School playground

**Instructional Objectives:** At the end of this instructional plan students will be able to

1. Look for the presence of wild life in their classroom.
2. Identify types of evidence that can be used to indicate the presence of wild life particularly birds.
3. Look for the presence of birds in their outdoor classroom.

**Entry Behavior:** Students have seen dead insects and spiders in their class.

**Support Material:** Pencils and paper for journaling.

**Instructional Treatment:** Students will be invited to explore the indoor classroom looking for signs of wild life. Even in the cleanest room some signs of life will be found. It might be a spider web or a dead insect near light source. After the search and discussion of what the students might have found. Students will be asked what evidence they can provide that animals are present in their classrooms.
Appendix-I

Students will be asked to list types of evidence that can be used to determine the presence of bird (bird songs, nesting site, feeding sights, feathers, eggs, scratches or marking etc). Students will be encouraged to think about using their senses (especially their senses of sight and hearing) for this purpose. Students will be taken out to look for evidence of birds in their outdoor classrooms. Students will be divided into pairs and each pair will be given five minutes to find as many signs as they can that birds have been there. They will be reminded to use their senses.

Investigator will discuss with students what they have learnt. Investigator emphasize that this activity shows that birds and wildlife share our habitats and sometimes we are not even aware of their presence. Looking for birds in an area requires looking for evidence of the bird’s presence.

**Importance:** Students will learn that birds and wildlife share our habitat.

**Instructional Plan – 31**

**Topic:** Identification of native birds

**Outdoor Activity:** Birding lane

**Instructional Setting:** Forested area

**Instructional Objectives:** At the end of this instructional plan students will be able to

1. Identify native birds in the outdoor classroom habitat.

2. Identify the different bird’s species.

**Entry Behavior:** Students have seen many birds commonly found nearby and the know names of few birds.

**Support Material:** Laminated pictures of birds, list of common names of birds in pictures, tape (for attaching bird pictures) paper or poster
boards (for birding lane sign), markers, field guide (bird identification books), pencils, paper, and binoculars.

**Instructional Treatment:** Investigator will gather pictures of at least ten different birds common to the geographic area and laminate them. Investigator will decide where to conduct the activity and establish an area or path as a trail called “Birding Lane”. Investigator will place the bird pictures along the trail in areas where the particular species might be found in the outdoors. A street sign entitled “Birding Lane” will be mounted.

Students will be asked to take a walk along “Birding Lane” to find and identify birds including the birds photos placed along the trail. They should take a pencil and paper to keep a track of the birds that they spot. Investigator will be suggested that when making notes or sketches they can get clues from this bird identification characters.

**Characteristics**

- **Silhouette (size and shape) how big is the bird?**
  - What shape is the beak? How big is the beak relative to the rest of the body?
  - How long is the tail compared to the bird? Is the end of the tail, square, pointed, round or forked?
  - How long are the legs compared to the body?

- **Plumage (color and pattern of the bird’s feather)**
  - What color are the feathers?
  - How would you describe the color patterns?
  - What color are the legs?
  - Can you find other markings?
Appendix-I

They will be given binoculars when ever required. After the students return, they will use field guides to identify the birds and make a list of bird names.

Importance: Students will test their skills at observing and identifying birds in wild bird habitat and they will learn the names of bird's commonly found.

Instructional Plan – 32

Topic: Adaptations

Outdoor Activity: Adapt a bird

Instructional Setting: Forested area

Instructional Objectives: At the end of this instructional plan students will be able to

1. Define the term adaptation.
2. Enumerate different adaptations found in birds.
3. Describe how these adaptations help the bird to survive in different habitats.

Entry Behavior: Students know name of common bird’s found in the locality. They have knowledge that birds have special adaptations that enable them to live in specific habitats in the environment.


Instructional Treatment: Students will be taken to wild bird habitat area of outdoor classroom. They will be told to make careful observation about the bird’s feet and beaks. Students will look through binoculars and see the birds in detail. Then they will be asked to sketch or write about the birds they observed.
Investigator explain the meaning of adaptation and lead the students in a discussion about the bird’s adaptations and what clues these adaptations tell us about the bird’s food sources etc. Students will be shown pictures of other birds that are not in the outdoor classroom site and the differences between the bird’s beaks and feet.

Referring to the birds observed in the outdoor classroom site and those in the pictures, investigator will help the students, generate a list of bird adaptations.

Students will be told to create “New Species” of birds using the adaptations from the list. Students must give the new species a name and write a couple of paragraphs describing the habitat and life of the bird including its food, nesting habits, flight etc.

**Importance:** Students will learn about different adaptations and they will use their creativity to create a new bird.

**Instructional Plan – 33**

**Topic:** Protective coloring

**Outdoor Activity:** Activity explaining protective coloring

**Instructional Setting:** School playground

**Instructional Objectives:** At the end of this instructional plan students will be able to

1. Explain the meaning of term ‘Protective Coloring’
2. Explain the importance of protective coloring for animals.
3. Enumerate the examples of protective coloring in animals.

**Entry Behavior:** Students have an idea that insects and butterflies are eaten by birds.

**Support Material:** Bread (four slices), food colors (red, blue, yellow, and green) and sheet.
Appendix-I

**Instructional Treatment:** Preparations for the activity will be done one day before. Investigator will tell students to peel off and discard the crust of four slices of white bread and break each slice into twenty small pieces. One slice white bread will be left, and other three slices will be colored red, blue, and green. For each color ten drops of food color will be mixed in one fourth cup water. Bread will be soaked in colored water will be allowed to air dry on to sheet (overnight).

An area with short grass where many birds are seen will be chosen for this activity. Investigator will tell students to place each different colored bread pieces in a circle of about twelve inches in diameter, six feet apart from each other and ask students to think about why they have done this, and what they think will occur to the bread over the next four hours.

The bread will be gathered later in the afternoon. When the bread is gathered the students will discover that more of the red, white, and blue colored bread is gone (the green will be left because it will not be easily visible in the grass).

Investigator will extend this into a discussion: "What if the bread were insects or butterflies which would have been eaten by the birds?" "How could this help to extend the life of the insect or butterfly?"

After discussion investigator will explain that protective coloration is the protective color pattern and sometimes texture of an animal that allows it to stay hidden among its natural habitat. Protective coloring is a part of adaptation. Animals need to survive, so they have adapted to blending into their surroundings. For example a lion's brown fur keeps it hidden in the plains of Africa. This allows for it to easily hunt other animals. Zebras black and white lines allow them to stay together and make it hard for a lion to see any one zebra and rather make it into a blurry patch. Owls are often colored like the bark of trees. This way they can easily hunt rodents without being
Deer are often colored like the forests in which they live. This protects them from predators.

Importance: Students will become aware about the meaning and importance of protective coloring in animals.

Home Assignment: Students will be told to collect pictures of animals having protective coloring and paste them in the scrap file.

Instructional Plan – 34

Topic: Bird house

Outdoor Activity: Preparation of bird house

Instructional Setting: School playground

Instructional Objectives: At the end of this instructional plan students will be able to

1. Learn about the need of erecting bird houses.
2. Prepare a bird house.

Entry Behavior: Students have knowledge that birds will not be able to survive without shelter.

Support Material: Empty milk carton, stapler, roll of masking tape, brown color shoe polish, rag, cutter, pencil, and piece of wire.

Instructional Treatment: Instructor will explain, “In urbanized areas, it is clear that secure nesting sites are limited. Even in rural areas, old snags are often cleared and wild borders eliminated by intensive agricultural practices, leaving little room even for beneficial species such as rodent-consuming owls or insect eating bluebirds. There is need to erect bird houses to save birds and that’s what we are going to do today”.

   Investigator will take an empty paper milk carton, open up the top of the carton and tell students to wash and rinse it thoroughly and let it dry. She will reclose the milk carton and staple it shut. Get a roll
of masking tape. Tear off 1-2" pieces of the tape and cover the entire milk carton. Overlap the pieces so that none of the carton shows. Get brown shoe polish and a rag and tell students to rub the polish over all of tape to make it look like brown bark. Let it dry thoroughly. Entrance hole will be cut in the bird house. Using a pencil several holes will be made in the bottom of the carton for any rain to drain out. Also several holes will be made in the top of the carton to let heat and condensation to escape. At the end she will make a hole through the top of the house near the staples. Put a short piece of wire through the hole to make a loop.

Students will be divided into groups they will make their own bird houses and will hang them on the trees.

**Importance:** Student will become aware that there is need to erect birdhouses to save birds. They will also develop love and concern for birds.

**Instructional Plan – 35**

**Topic:** Bird feeders

**Outdoor Activity:** Preparation of bird feeders

**Instructional Setting:** School playground

**Instructional Objectives:** At the end of this instructional plan students will be able to

1. Learn about the need of bird feeders.
2. Prepare a bird feeder.
3. Learn about different kind of food which birds eat.

**Entry Behavior:** Students have knowledge that birds also need food like human beings.

**Support Material:** Plastic egg carton, wire, coat hanger, and seeds.
**Instructional Treatment:** Investigator will tell students, “We have talked about bird houses. Now let’s look at what we can do to help provide the birds with food. Bird feeding isn’t just a winter activity; it might surprise them to learn that even in spring, food is still scarce for our feathered friends. The temperatures are usually cool enough that many insect populations haven’t emerged, and that’s sad news for those birds that eat insects. Also, the fruit eating birds won’t see their favorite foods naturally appearing until harvest. To help these birds we will make bird feeders.”

Investigator will explain students how to make a bird feeder. She will cut the top off the plastic egg carton. Wash the bottom with warm water and let it dry. Loop pieces of wire around each end of the carton. Tie the loops to the bottom of a coat hanger. After making bird feeders, investigator will explain that there are four main types of feed that go into bird foods: seeds, nuts, grains and fruits. Seeds include things like sunflower, and safflower seeds. Grains include corn, wheat, bajra etc. A variety of nuts and fruits are used in bird foods with peanuts and dried berries being the most common. In addition to those four there are also a couple of types of birds that enjoy sipping sugar water.

Students will be given different kinds of seeds and grains to fill the holes of egg carton. Investigator will tell students that they can feed more birds at their feeder if they keep bird bath. They can keep shallow tray or low container. They should keep bird feeders and bird bath clean.

**Importance:** Students will feed birds and develop love for them.

**Instructional Plan – 36**

**Topic:** Limiting factor

**Outdoor Activity:** Physically-involved activity explaining limiting factor
Instructional Setting: School playground

Instructional Objectives: At the end of this instructional plan students will be able to

1. Enumerate the different components of an animal habitat.
2. Explain the term ‘Limiting Factor’.
3. Explain the effects on animals when any component of habitat becomes limited.

Entry Behavior: Students know that they need food, water and shelter to survive.

Support Material: Construction paper, one black marker, envelopes, yarn or string, tape or glue, and one jump-rope.

Instructional Treatment: In this activity, the butterflies are the focus in order to illustrate the importance of providing suitable habitat for wildlife. Investigator will create four sets of twenty-five (25) 2” x 2” cards (100 cards in total) from the colored construction paper to represent green for host plants (25), orange for nectar plants (25), red for nectar plants (25), and blue for puddles (25) and make up a set of envelopes with the butterfly (two will be marked as “caterpillar,” and the rest as “adults”) written on the front of the envelope. Pieces of yarn will be cut in 16” strips and each end of the string will be attached to the envelope with tape or glue.

In a fairly large open area in schoolyard, investigator will place a jump rope in the shape of a circle in the middle of the open area and then scatter the colored pieces of paper throughout the area including the circle. Students will put the yarn around their necks like a necklace so that the envelopes hang on their chests. Investigator will ask all of the students to line up along a “starting line,” and give them the following directions: “You are now all butterflies. Your job is to ‘fly’ around the butterfly garden to gather the colored pieces of paper, which represents your shelter, food and water sources in your
envelopes. Each time you collect a piece of paper, you must return to 
the starting line before ‘searching’ for another piece. Two of you are 
caterpillars, and you must crawl along the ground to collect your 
shelter, food, and water."

When all of the colored squares have been picked up, 
investigator will ask the students to sort their pieces of paper by color 
in their envelopes Investigator will have the “caterpillars” raise their 
hands and ask, “Did all of the “caterpillars” collect a green piece of 
paper”. She will explain that the green pieces of paper represent host 
plants. If the caterpillars don’t have their host plant, they won’t have 
anything to eat and they won’t survive. Host plants are a limiting 
factor for caterpillar survival. She will then ask “Are there any other 
“butterflies” who did not collect a green piece of paper?” and explain if 
so, these butterflies will not have shelter to lay their eggs to help 
protect them from inclement weather and predators. Thus, host plants 
are also limiting factor for butterflies to breed and continue their life 
cycle. After this investigator will explain that the red and orange 
pieces of paper represent nectar plants and blue pieces of paper 
represent puddles. Those students who did not collect a red or orange 
piece of paper won’t survive because they don’t have food to eat and 
those students who did not collect a blue piece of paper also won’t 
survive because they don’t have water to drink.

At the end investigator will explain that even though we might 
not think of butterflies and other insects as wild animals, they do 
need the same things that all animals need to survive: food to eat, 
water to drink, and shelter to protect them and their young from 
inclement weather and predators. Loss of butterfly habitats limit the 
butterfly populations, especially through the lack of suitable host 
plants for laying their eggs, suitable nectar plants for food sources, 
and suitable puddles for drinking water and obtaining additional 
nutrients. The “limiting factor” for any population of butterflies is the
component of habitat (food, water or shelter) that is in shortest supply.

**Importance:** Students will learn that in absence of food, water, and shelter butterflies and other animals will not be able to survive.

**Home Assignment:** Describe some of the factors that may limit the survival of an animal that lives in your area. What are the animal's habitat requirements?

**Instructional Plan – 37**

**Topic:** Importance of animals

**Outdoor Activity:** Fancy dress competition on animals

**Instructional Setting:** School compound

**Instructional Objectives:** At the end of this instructional plan students will be able to

1. Explain the significance of animals.
2. Learn about different habitats of animals.
3. Show increase in love for animals.

**Entry Behavior:** Students know some basic facts about animals.

**Support Material:** Costumes, written script, and sound system.

**Instructional Treatment:** A fancy dress show will be organized. Theme of fancy dress show will be animals. One week prior to the show, students will start preparing. Costumes will be selected, script will be written and participants will be given practice for the show.

On the day of fancy dress show. Participants will wear their costumes of animals (like peacock, elephant, deer, tiger, bear etc) and do their makeup accordingly. School staff and students will be the audience. Participants will come one by one and enact their part. They
will talk about their habitat and their role in nature. Prizes will be given to three best performers.

**Importance:** Fancy dress show on animals will make students aware of importance of animals and help in increasing love for animals in children.

**Instructional Plan – 38**

**Topic:** Wild animals

**Outdoor Activity:** Visit to a zoo

**Instructional Setting:** Manda Zoo at Jammu

**Instructional Objectives:** At the end of this instructional plan students will be able to

1. Learn about different wild animals.
2. Suggest the ways by which wild animals can be protected.

**Entry Behavior:** Students are aware of the importance of animals.

**Support Material:** Water bottles, note books, pencils, eatables, and a first aid kit.

**Instructional Treatment:** Students were taken for a one day picnic to Manda Zoo at Jammu. Students will be asked to carry note books, pencils, heavy lunch and water bottles with them.

Students will observe the animals and birds in the zoo. Investigator will tell them to write the names and features of all the animals they see. They will also take information from the caretaker of the zoo about the eating habits of animals. Different ways by which wild animals can be protected will be discussed.

**Importance:** Students will get knowledge about different wild animals and will develop love for animals.
Instructional Plan – 38

**Topic:** Save animals

**Outdoor Activity:** Council of all beings

**Instructional Setting:** School playground

**Instructional Objectives:** At the end of this instructional plan students will be able to

1. Explain interesting facts about animals.
2. Learn how to help animals.
3. See things from animal’s point of view

**Entry Behavior:** Students know the ways by which wild animals can be protected.

**Support Material:** Cards (with animals), and masks (made by students).

**Instructional Treatment:** Investigator will tell students to pick cards which will have animals on them. Cards will be faced down so that students cannot see them. Each student will pick a card. Students will be told to write a report on the animals they have picked and make a mask of that animal. Four days time will be given to them for this task. Investigator will provide necessary guidance.

After four days students will sit in a big circle in the school playground. Each student will represent an animal (bat, porcupine, black bear, big horn sheep etc). They will wear masks and talk about what they have learned. Each animal will discuss his problems. They will talk about what is happening to animals, what can be done to save them and what they as animals could think of to do as solutions to some of our environmental problems. At the end investigator will explain that there is a need to teach people to respect animals. If we don’t protect animals, they will become extinct.
**Importance:** In council of all beings students will get knowledge about interesting facts they don’t know about animals. They will become sensitive towards about problems that animals face and treat them with respect.

![Image of a penguin on an iceberg holding a 'help' sign]

**SAVE ANIMALS**

**Instructional Plan – 40**

**Topic:** Waste in school

**Outdoor Activity:** Cleaning the school campus

**Instructional Setting:** School campus

**Instructional Objectives:** At the end of this instructional plan students will be able to:

1. Identity the waste in school.
2. Point out the effects of waste in the school.
3. Point out ill effects of waste on human beings

**Entry Behavior:** Students know that they should keep their school neat and clean.
Appendix-I

Support Material: Bags for collecting waste material.

Instructional Treatment: Students will be told to clean the school campus after recess. Students will pick up waste papers, paper napkins, plastic plates, glasses, spoons etc from the ground and put them in the dustbin. Students will pick weeds from the grass and throw them into the dustbin.

In the end, students will sit and investigator will explain that the waste in school is created by their own careless attitude. They can stop it by just being careful and putting the waste in the dustbin instead of spreading it here and there.

Importance: Students will be sensitized to the need of keeping the environment clean.

Instructional Plan – 41

Topic: Reduce waste

Outdoor Activity: Waste free lunch week

Instructional Setting: School campus

Instructional Objectives: At the end of this instructional plan students will be able to

1. Learn about the need to reduce waste.
2. Educate their friends and class mates to reduce waste.
3. Encourage their parents to give waste free lunch box.

Entry Behavior: Students have idea that lunches they bring increase the garbage in the school.

Support Material: Letter (to parents).

Instructional Treatment: Investigator will show the garbage collected after lunch time to the students and tell that, it has been estimated that on average a single school age child generates 35 kilogram of
lunch time waste per school year. She will ask students how they can reduce this garbage. After listening to students she will suggest the idea of waste free lunch to students that

**Instead of a**

- Paper bag
- Aluminum foil
- Aluminum soda container
- Plastic spoon
- Paper napkin

**Bring a**

- reusable lunch box
- cloth napkin for wrapping
- thermos
- metal spoon
- cloth napkin

**WASTE FREE LUNCH BOXES**

They will be told that every single piece of packaging or excess good that one eliminate from the waste stream makes a difference. A letter explaining how to pack waste free lunch will be given to each child for their parents.

Garbage before and after waste free lunch week will be weighed and students will note the difference. Students will also educate their friends and class mates to reduce waste during lunch break.

**Importance:** This activity will guide both students and their parents about the need to reduce waste and how they can do that by bringing waste free lunch.

**Home Assignment:** Students will be told to think about different ways by which they can reduce waste in their home.
Instructional Plan – 42

Topic: Reuse waste-I

Outdoor Activity: Reusing is fun

Instructional Setting: School garden

Instructional Objectives: At the end of this instructional plan students will be able to

1. Define reusing.
2. Enumerate the waste material from their surroundings that can be reused.
3. Use creativity to reuse waste material.

Entry Behavior: Students have seen that usually empty bottles are thrown away into the garbage.

Support Material: Empty honey bottles, jam bottles, pickle bottles, aluminum soda containers, shampoo bottles, old tins, cereal boxes, detergent boxes, dessert mix boxes, juice bottles, paint, wool, marble, chips, and sequins.

Instructional Treatment: The investigator will explain that reusing means that one should avoid making more trash or wasting resources and energy by reusing things that are already made. This includes donating used clothing and items to those who need them, borrowing things instead of buying them, and avoiding disposable products. She will make the students sit in the school garden; put all the old things mentioned above, on the ground, before them. The students will be asked to observe the material and think of creative ideas on how old material can be best reused in our home?

The students will suggest some of their creative ideas. After their attempts, the investigator will explain that solid waste management is the big problem before us today. So they should
discover new ways to reduce and reuse the old material as far as possible. The investigator will show material like old plastic bottles that can be used as pots for planting, bed sheets that can be made out of old clothes, shopping bags that can be prepared out of old curtains at the home.

Investigator will show how empty bottles can be reused. She will take an empty jam bottle. Soak off label. Paint or cover with wool of any color. She will tell students to decorate it by using marbles chips and sequins. She will tell students that this bottle can be used as a pen holder. Investigator will distribute empty jam/honey/pickle bottles. Students will use their creativity in decorating these empty bottles.

**Importance:** The students will become aware that they can reduce the wastage by reusing the old material.

**Home Assignment:** Students will be told to make dustbin from old tins.

**Instructional Plan – 43**

**Topic:** Reuse waste-II

**Outdoor Activity:** Making and selling of paper bags

**Instructional Setting:** School garden

**Instructional Objectives:** At the end of this instructional plan students will be able to

1. Reuse paper for making bags

**Entry Behavior:** Students know that old material can be reused to avoid its wastage.

**Support Material:** Waste paper, gum, thick thread, colors, crayons, and scissors.
Appendix-I

**Instructional Treatment:** Investigator will make all the students sit in the open garden and demonstrate the procedure of making beautiful bags out of the waste paper from copies, newspaper, etc. She will cut pieces of paper and stick them in the shape of bag. Then investigator will ask the students to make the carry bags and decorate with the waste paper only. The students will decorate the bags using their creativity.

The students will display carry bags for sale on parent teacher meetings and donate the collected money for charity.

**Importance:** Students will develop an attitude of reusing the materials at home and outside.

**Instructional Plan – 44**

**Topic:** Recycle waste

**Outdoor Activity:** Make your own paper from old newspaper.

**Instructional Setting:** School garden

**Instructional Objectives:** At the end of this instructional plan students will be able to

1. Define recycling.
2. Enumerate the waste material from our surroundings that can be recycled.
3. Enable to recycle old newspapers.

**Entry Behavior:** Students have seen old newspapers at their home which are given to kabariwala.

**Support Material:** Recyclable packaging material, newspapers, coat hanger, old nylon stocking, paper towel, mixing bowl, and water.
**Instructional Treatment:** Investigator will make the meaning of recycling clear to students. The investigator will explain that the material which is given to 'Kabariwala' is recyclable. The bottles with marking of a triangle at the bottom are to be identified as 'recyclable'. She will show some recyclable packaging material to the students.

Students will be told to gather up several sheets of old newspapers. Investigator will take a newspaper and tear it into little pieces and explain students that they have to add hot water and let the mixture sit for about 10 minutes and the blend the paper. Already blended news paper will be shown to the students.

Investigator will bend the coat hanger to form a somewhat round loop. Cover the hanger loop with an old nylon stocking and tell students this is our 'screen'. Students will be told to place the 'screen' over the mixing bowl, pour the liquid mixture onto the screen and let this sit for a while until all of the liquid has finished draining into the bowl. Screen will be placed between two sheets of paper towels. It will be left out in the sun until it is completely dry with no dampness at all. Paper towels will be removed and paper will be peeled off of the screen.

After the activity investigator will explain that paper that has been used and treated for use again is recycled paper. Paper from homes, offices, and schools can be collected, sent to special recycling centers, and remade into usable paper. This process can take place over and over. Every year many trees are cut down to meet the world's demand for paper. Recycling will help save trees from being cut down. At the end investigator will motivate students by saying
that, “It is everyone’s duty to recycle. Young and old, we can all can pitch in and do something to protect the earth. It is especially important that we protect the environment for all generations in the future, especially the children”.

**Importance:** Students will learn how to recycle old newspaper and they will be motivated to throw less and recycle more.

**Instructional Plan – 45**

**Topic:** Hazards of waste accumulation

**Outdoor Activity:** Visit to a garbage dumping site

**Instructional Setting:** Garbage dumping site

**Instructional Objectives:** At the end of this instructional plan students will be able to

1. Enumerate different types of waste.
2. Explain the hazards of waste accumulation.

**Entry Behavior:** Students have seen garbage dumps near their houses.

**Support Material:** Copy, pencils, and water bottles.

**Instructional Treatment:** Investigator will take students to nearby garbage dump. Investigator will instruct students that they should not touch anything.

   Investigator will ask students to look at the garbage dump and ask how the place is? Students will tell that accumulated garbage emits foul odor, makes any place ugly, and uncovered garbage attracts flies. Investigator will explain that these flies cause diseases. Garbage also attracts rodents that spread diseases. She will show them rag pickers and explain that harmful chemical waste dumped carelessly is a big risk to poor people who earn a living by collecting recyclable
wastes. Plastic bottles and bags cause blockage in drains, harm the soil, and cause death of animals like cows and dogs.

Investigator will tell students that next time they start to throw something into the garbage they should, stop and check to see if it could be recycled. Look for the recycling symbol. Remember the hazards of waste accumulation and how important it is to save the natural resources and don’t forget three R’s.

1. Reduce,
2. Reuse and
3. Recycle

**Importance:** Students will become aware of the problem of waste accumulation and its solution.

**Instructional Plan – 46**

**Topic:** Environment friendly practices

**Outdoor Activity:** Eco birthday party

**Instructional Setting:** School compound
Appendix-I

**Instructional Objectives:** At the end of this instructional plan students will be able to

1. Enumerate the different types of waste in a normal birthday party.
2. Suggest the ways by which parties can become environment friendly.

**Entry Behavior:** Students have been to birthday parties of their friends many times.

**Support Material:** Pieces of fabric, sticks, leaves, reusable plates, cups, table cloth, cloth napkins, and old toys.

**Instructional Treatment:** Investigator will discuss with students about the amount of wastage they have after a normal birthday party. She will give ideas to students that they can celebrate their birthday without creating any kind of waste.

Birthday of a student will be celebrated in the environmental friendly way. As a craft, students will draw on pieces of fabric to make a quilt with the theme of “Helping the Earth”. Children will play games using natural objects. They will make sculptures from natural objects (clay, leaves etc.). Food will be served in reusable plates and cups in place of using disposable plates and cups. Table cloths, cloth napkins etc. will be used and there will be no paper napkins. Instead of bringing gifts students will donate money, clothes, and old toys to a local charity.

**Importance:** Students will learn how can make their birthday environment friendly. They can enjoy without creating any kind of disturbance in the environment.
Appendix-I

Instructional Plan – 47

Topic: Greenhouse effect

Outdoor Activity: Demonstration in open

Instructional Setting: School garden

Instructional Objectives: At the end of this instructional plan students will be able to

1. Explain the process of greenhouse effect.
2. Name the greenhouse gases.
3. Explain the effects of greenhouse effect in day to day life.

Entry Behavior: Students have knowledge about the names of different gases present in the air.

Support Material: Three large clean glass jars and two outdoor thermometers.

Instructional Treatment: Experiment will be performed on a sunny day. Investigator will keep one glass jar outside in sun with thermometer in it. Second jar will be placed upside down on top of the first. The thermometer will be inside the two glass jars. Third jar will be without any cover and thermometer will be kept in it. Glass jars and thermometer will be left in sun for about one hour and students will be told to record the temperature. Students will note that temperature in the open jar will be less than the closed one.

Investigator will explain that glass jars act as the atmosphere and create a mini green house. Our atmosphere creates a natural green house effect that allows warmth to remain on the earth resulting in growth of plants and animals. Gases like carbon dioxide, methane, water vapor, nitrous oxide, and fluorocarbons that absorb and “trap” heat in the earth’s atmosphere, are greenhouse gases.

Importance: This activity will make students aware about the greenhouse effect and its advantages.
Instructional Plan – 48

**Topic:** Global warming

**Outdoor Activity:** Pledge on global warming

**Instructional Setting:** School compound

**Instructional Objectives:** At the end of this instructional plan students will be able to

1. Define global warming.
2. Enumerate the potential impacts of global warming.
3. Enumerate the activities which cause global warming.
4. Encourage parents and other students to pledge to not to do activities which cause global warming.

**Entry Behavior:** Students have knowledge about the greenhouse effect.

**Support Material:** A copy of pledge for each student.

**Instructional Treatment:** Investigator will explain that if too much carbon dioxide is released, the greenhouse effect is increased to a point where it could cause global warming which is an increase in the average worldwide air temperature. This rise in temperature could cause sea levels to rise and flood low-lying coastal areas worldwide, shift climate zones too fast for many plants and animals to adjust, affect agricultural production and water resources, affect human and animal health.

She will further explain about the activities by which we are sending carbon dioxide to atmosphere and how we can save our planet by taking pledge to send less carbon dioxide by controlling these activities. Investigator will give copy of pledge to each student and tell them to fill it with the help of their parents.
**Pledge**
To help save the planet from global warming. I pledge with my family to send less **carbon dioxide** to the atmosphere, we’ll do it by taking energy saving steps we’ve checked below our family saving plans.

**Car Smarts**
- Treat our car to a tune up once a year - save 450 kg.
- Walk or ride a bicycle whenever possible instead of going on car - save 75 kg.
- Combine our car tasks into one fuel saving trip - save 250kg.
- Keep our car tires inflated - save 125 kg.
- Buy a car that gives more mileage - save 1,000 kg.

**Total carbon dioxide saved here** ________________ .

**Electricity Simplicity**
- Replace a 100 watt incandescent bulb with a 15 watt florescent tube- save 80 kg for each bulb.
- Turn out lights when we’re not using them - save 60 kg for each room.
- Use natural light during day - save 150 kg.
- Turn off appliances like televisions, stereos, radios when not using them - save 100 kg for each appliance.
- During winters wear an extra sweater instead of using heaters in the house - save 120 kg.
Appendix-I

Open the refrigerator only when we have to; not standing with the door open deciding what we want from inside -save 90 kg.
Use electrical appliances only if we cannot use manual ones-save 80 kg.
Shorten air conditioner use by three daily-save 100 kg.
Get an annual tune up of our air conditioner- save 110 kg.

Total carbon dioxide saved here ________________.

Turn over a new leaf
Plant a tree on the south or west side of our home to provide cooling shade -save 75 kg

Making old as good as gold
Recycle one aluminum can a day -save 70 kg.
Recycle one glass bottle a day-save 50 kg.
Recycle one newspaper a day- save 25 kg.

Total carbon dioxide saved here ________.

Our grand total is ________.
The carbon dioxide we will save ________ this year.
Student will get the forms filled. They will stand in lines and speak the pledge after the investigator in chorus and together take pledge that they will send less carbon dioxide to the atmosphere every year.

**Importance:** This activity will bring awareness in students and their parents about the activities which increase the level of carbon dioxide in the atmosphere and cause global warming. They will also acquire feelings of concern for environmental issues.

**Home Assignment:** Investigator will tell the students that they can improve the environment by working with the community through a special letter writing effort. They can write to local businesses men asking them to make a specific commitment to improve their business’ environmental practice. Addresses of local business men will be given to the students.

**Instructional Plan – 49**

**Topic:** Environmental concern

**Outdoor Activity:** Poster making competition

**Instructional Setting:** School garden

**Instructional Objectives:** At the end of this instructional plan students will be able to

1. Organize their ideas about environment.
2. Use creativity to convey their message of environmental concern.

**Entry Behavior:** Students know that there is a need to protect environment.

**Support Material:** Drawing sheets, drawing boards, pencil, eraser, scale, and colors.

**Instructional Treatment:** A poster making competition will be organized. The investigator will make all the students sit in the open...
garden with their drawing boards, sheets, pencil, eraser, scale, and colors. The theme for poster making will be

- Man and Nature
- Stop Pollution
- Save the Planet Earth

The competition will be of one hour duration. Students will use their creativity and make posters. After the completion investigator will collect all posters. Best three will be given prizes after evaluation.

**Importance:** Students will use their creativity to convey the message of conservation and preservation of environment.

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**Instructional Plan – 50**

**Topic:** Environmental awareness

**Outdoor Activity:** Environmental rally cum cleanliness drive

**Instructional Setting:** School and Civil Line Road, Gurdaspur
**Instructional Objectives:** At the end of this instructional plan students will be able to

1. Develop skill of expressing their views to save environment to general public.

**Entry Behavior:** Student know that the message of environmental protection should be given to everybody for the solution of environmental problems.

**Support Material:** Different charts carrying environmental messages and slogans (made by students), banners, and green caps.

**Instructional Treatment:** The investigator will organize a rally on environmental awareness to develop environmental concern. Sixty students will participate in this rally. The rally will cover three kilometers. Route will be from school to Jhaj Chowk, Gurdaspur and back to school through the same route.

Students will be told to wear proper white uniform. Banners and green caps will be distributed to the students. The student will have charts with slogans on them to deliver people healthy environmental messages like

- Save The Earth
- Say No To Polythene
- Ban Crackers
- Don’t Cut Trees
- Stop Playing Loud Music

and other related slogans to disseminate the message among the community. Students will speak slogans and display chart to general public. The rally will terminate with a cleanliness drive. The students will collect all the plastic and other recyclable material spread in the street.
Appendix-I

**Importance** Environmental rally is the most effective way of spreading awareness of environment among the general group of people. Students will understand their responsibility towards environment.