Exploring The Himalayan Environment

A Children's Workbook

Nature Conservation Foundation | Snow Leopard Trust

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Nature Conservation Foundation (NCF)
Snow Leopard Trust (SLT)

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Concept, research & text: Pranav Trivedi

Illustrations: Maya Ramaswamy

Design: Jigish Mehta

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Introduction

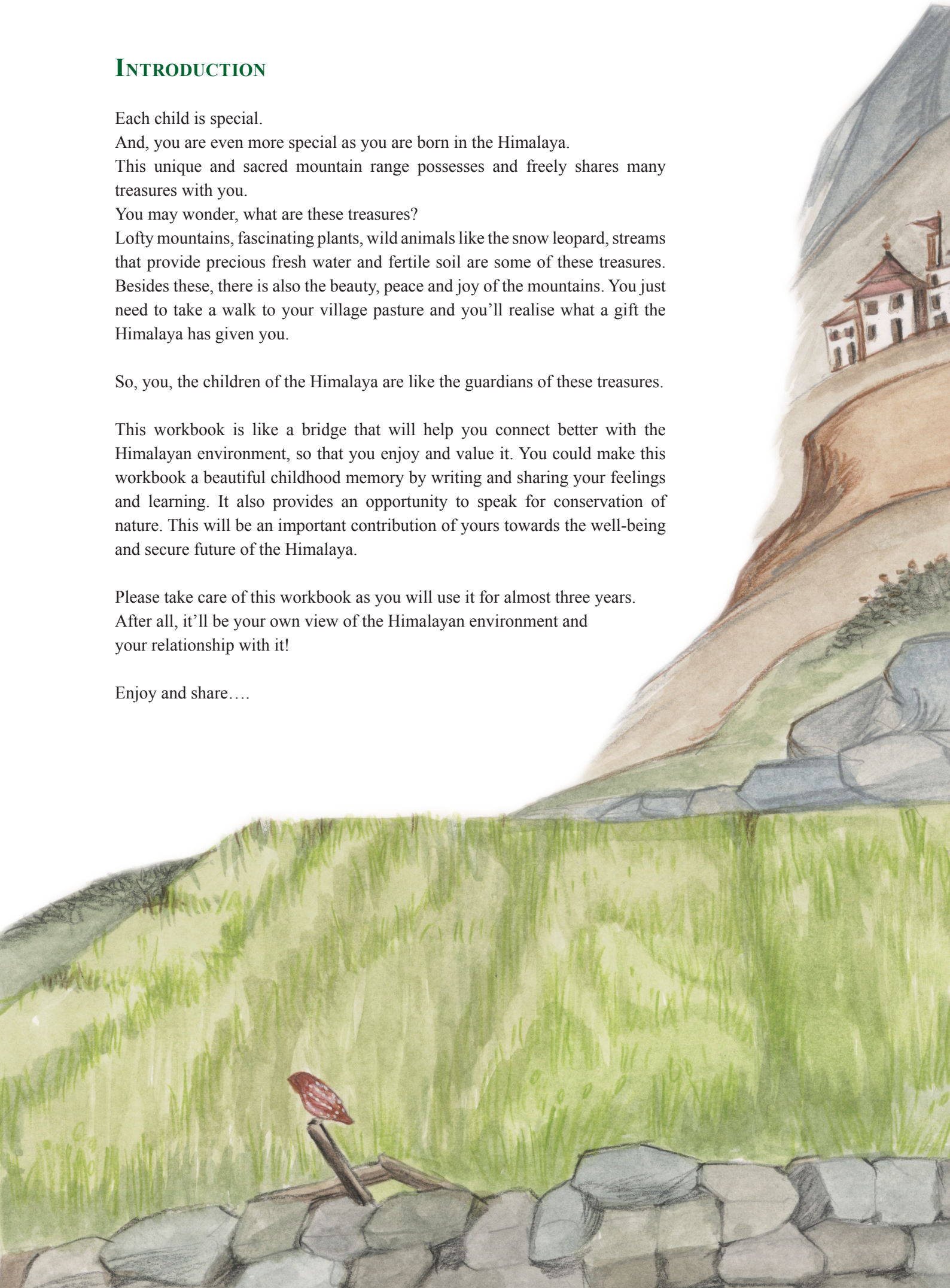
Each child is special.
And, you are even more special as you are born in the Himalaya.
This unique and sacred mountain range possesses and freely shares many treasures with you.
You may wonder, what are these treasures?
Lofty mountains, fascinating plants, wild animals like the snow leopard, streams that provide precious fresh water and fertile soil are some of these treasures. Besides these, there is also the beauty, peace and joy of the mountains. You just need to take a walk to your village pasture and you'll realise what a gift the Himalaya has given you.

So, you, the children of the Himalaya are like the guardians of these treasures.

This workbook is like a bridge that will help you connect better with the Himalayan environment, so that you enjoy and value it. You could make this workbook a beautiful childhood memory by writing and sharing your feelings and learning. It also provides an opportunity to speak for conservation of nature. This will be an important contribution of yours towards the well-being and secure future of the Himalaya.

Please take care of this workbook as you will use it for almost three years.
After all, it'll be your own view of the Himalayan environment and
your relationship with it!

Enjoy and share….



Contents

Mother Earth

The earth appears like a beautiful blue ball from space. Those who have traveled to space have discovered its beauty and uniqueness. If we just look around and see the miracles called plants and animals, we will get the proof of this. Earth is the only place in space known to support life so far. This tremendous diversity (variety) of life on our planet includes micro-organisms, fungi, plants and animals (including ourselves). Scientists believe that there could be about 15 million (1,50,00,000) species of plants and animals on the earth! Presently, the names of only about 10 per cent of these (1.7 million species - 17,00,000) are known to us. Isn't this fascinating?! There is so much to know and learn about our planet that we need several lifetimes to do only a small part of it. So, let us rejoice in the fact that we are among those fortunate ones to inhabit such a rich and unique place – the Earth. It is natural that we begin by first being thankful to mother earth and develop closeness with her.

"The earth does not belong to man; man belongs to the earth."

– Chief Seattle (a native American chief)

1. Touch…Mother Earth

Learning: The Earth is our true home and many fellow humans and wild creatures share this home. The earth is like a mother and all children are her little guardians.

Exercise I: Write your address in Universe below.

Galaxy: _____

Planet: _____

Continent: _____

Country: _____

State: _____

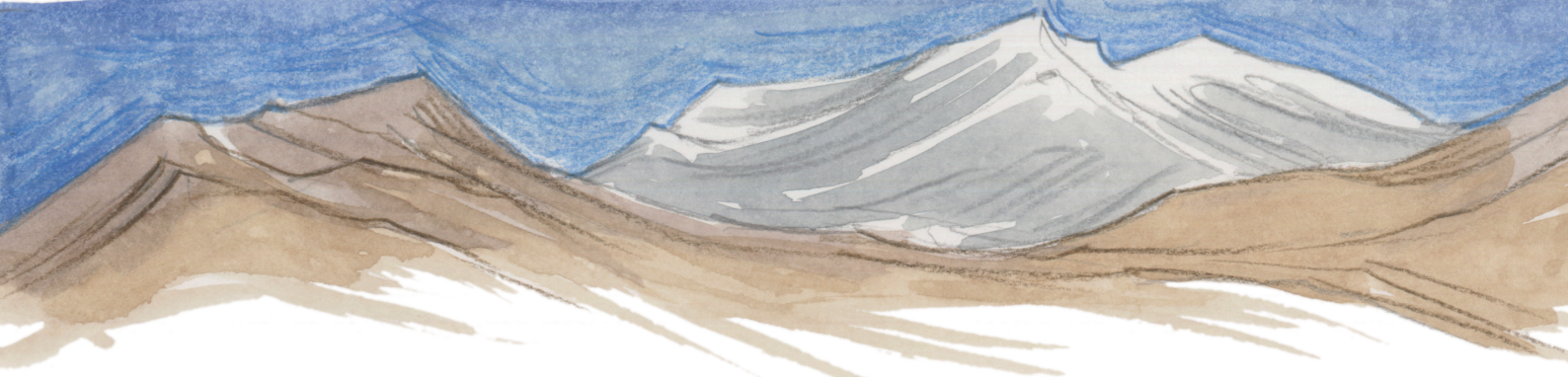
District: _____

Village/Town: _____

Street: _____

House number: _____

Exercise II: Please write below how you felt about the activity and what you would like to do as the "Guardians of the Earth."



Himalaya: The Abode of Snow

The Himalaya or 'the abode of snow' is a magnificent mountain range spread across seven countries over a length of about 3,000 km. Himalaya is the source of many of India's mighty and sacred rivers like the Indus, Sutlej, Ganga, Yamuna and Brahmaputra or Tsangpo. These rivers support agriculture in the flood plains which helps sustain a large human population. The Himalaya acts as a physical barrier preventing the drying winds from the north. It also plays an important role in our country's security. The Himalayan mountain range has a great influence on the Indian monsoon. It is a sacred mountain range for millions of people living in India, Nepal, Bhutan and Tibet. Each year, thousands of tourists visit the Himalaya for recreation, pilgrimage, mountaineering, trekking, outdoor education and spiritual quest. And for all of you, who live here in this heaven, the Himalaya is a beautiful home and a source of sustenance and livelihood.

2. The Living Himalaya: A Pictorial Journey

Learning: Himalaya is a living mountain range. It is extremely rich and diverse, but it is in danger of losing many species of wildlife and their homes. This can also affect your life. Like Lobsang and his uncle, you too can do something for conservation of this living mountain range.

Exercise: Please write below what you learnt from the slide show on "The Living Himalaya".

1. Why do we call the Himalaya "living"?

2. What kind of mountain range is Himalaya?

3. Which are the main sections/parts of the Himalaya?

4. Name any three wild plants and animals of the Himalaya that you have remembered or liked from the slide show.

5. Name any three problems that the Himalayan mountain range faces.

6. How can you help in solving these problems?

3. High Altitude Food Factories

Learning: Energy flows from the sun to plants, plants to animals and from these organisms to soil, where it's again used by plants. SUN is the main source of energy on earth. The path of energy from the sun to plants and animals on the EARTH is called a FOOD CHAIN. Many such food chains constitute complex and interconnected FOOD WEBS. We are also a part of the earth's food chains. Hence, health of the food chains ensures our health. The food chains in the high altitude region of the Himalaya have changed because of people and their livestock living in these regions for hundreds of years.

Exercise I: Finding out about food chains is not easy. You have to become a detective to do that. Hidden in these two posters are the food chains found in the high mountainous region of the Himalaya. Take up the challenge to find out these food chains and their importance. Look for the secret codes or symbols and numbers against the plants and animals shown in the two posters. A good detective will first list all the plants and animals under each of the symbols given (e.g. tertiary consumers, producers etc.). Then place these lists at appropriate places in the space given below. Think about what each species will eat (get energy from) and who will eat it (get energy from it). Put arrows between the categories showing the direction in which the energy is flowing (e.g. from producers to herbivores and from herbivores to secondary consumers and so on). That's all, this way you will discover the high altitude food chains!! Remember to link the sun – the source of all energy with the category in the food chain that receives it!

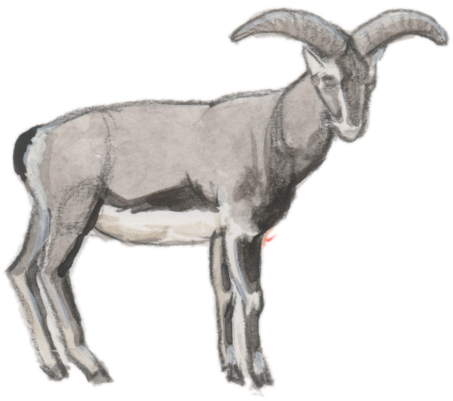
So, what are you waiting for?
Just grab a pencil and in the space below show the secret food chains of the high altitudes. You can also find more information about the different members of food chain from books and by asking elderly people in your family and village. Later, when you go for a walk on a nature trail, you may look around and construct a food chain with plants and animals found there.

Poster I *Poster II*

Exercise II: How are the food chains in the two posters different? Write three major differences below and request your teacher to tell you more about it.

The food chains in the two posters are different in:

1. _____
   _____
2. _____
   _____
3. _____
   _____



My Windows to the World: The Senses

It is very easy for a wolf to locate its prey even when it cannot see the animal, just by its smell, or for a vulture soaring very high in the sky by its very sharp eyesight. Plants and many invertebrates (animals without backbones), which don't have eyes are extremely sensitive to touch. We, on the other hand have an elaborately specialised tongue that can make out several tastes. And a cat's ears can pick out even a small movement in the grass, which helps it pounce precisely on its prey. Like most animals, we humans too have been gifted with these windows to learn and understand our environment. The five senses of touch, smell, sight, hearing and taste are our true windows to learning about our environment. If we keep these five windows open and use them properly, we can learn much more about our environment. Let us sharpen these five senses and feel closer to nature.

4. Ten Touches

Learning: By touching natural objects, we can sharpen our sense of touch so that we understand much more about nature and her interesting aspects. You can frequently use and sharpen your sense of touch especially while walking in a natural area. But, be careful of plants that have thorns or give you an itch!

Exercise I: Draw any five objects that you found special.

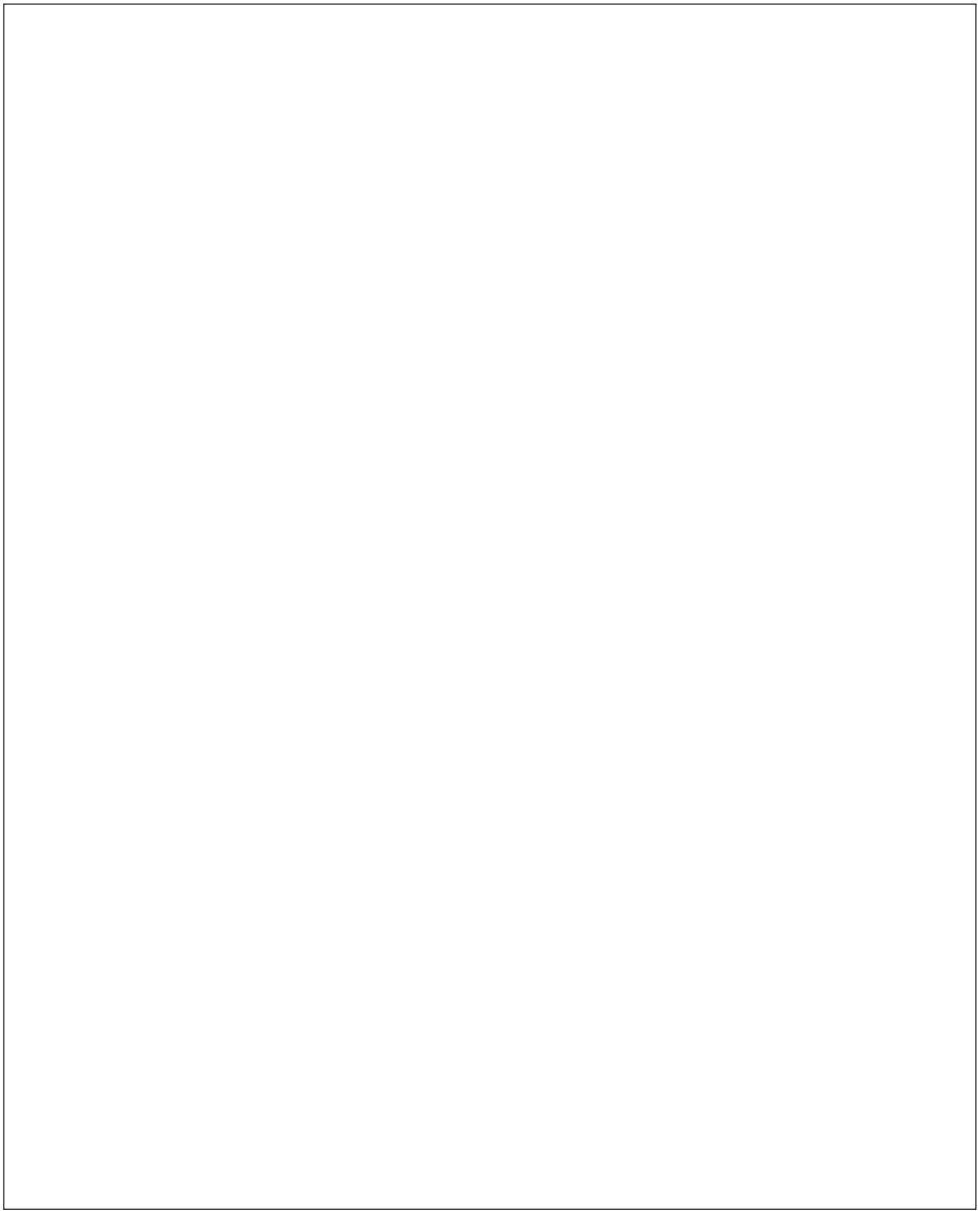
Exercise II: My experience and learning from using the sense of touch (before and after I was blindfolded)

5. My Natural Binoculars and Lenses

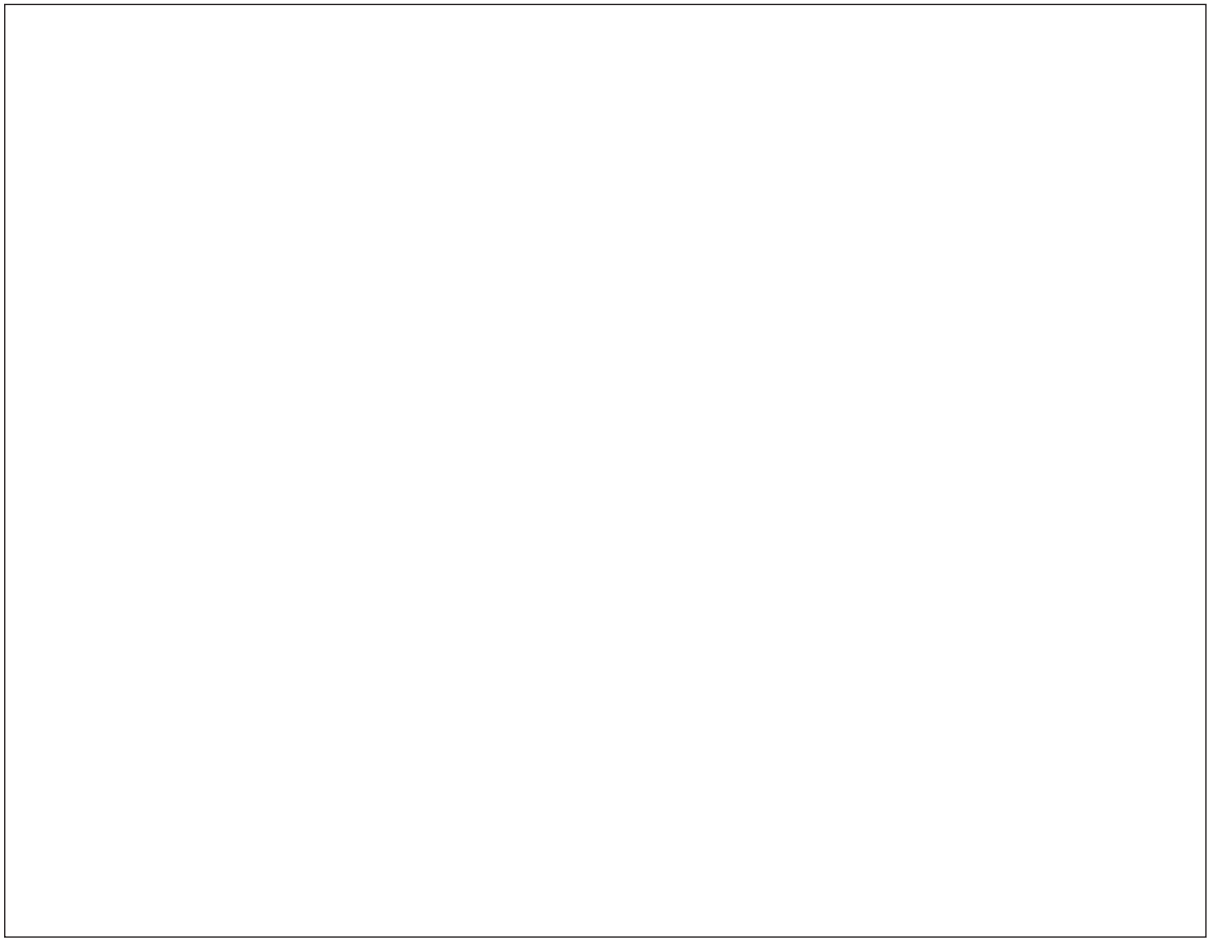
Learning: To sharpen the sense of sight, we need to expand and focus (zoom out and in) our vision. This will enable us in observing better. To observe better, we need to be quiet and attentive.

Exercise: Make painting of any plant/mountain/natural scenery that you observed from very far and very close.

From Very Far



From Very Close



6. Snow Leopard on the Prowl

Learning: When we pay attention to the sounds around us and remain quiet, we improve our sense of hearing by moving from hearing to listening.

Exercise I: My learning from the snow leopard game

Exercise II: Just sit in silence and listen to the natural sounds. Draw a sound map showing the different sounds around you, their direction, distance and source in the space below.

7. The Smelly World

Learning: Many objects in nature have smells of different types. Plants growing at high altitudes are special as several of these possess strong smells. Their leaves, stems, roots, seeds and flowers – all can have smells and by paying attention to their smell, we learn more about these plants.

Exercise: Draw any five plants/plant parts that had different smells. You can describe these smells by thinking about similar smells that you already know e.g. like ginger, lemon etc.

No.	Plant/plant part (drawing)	Smell
1		
2		
3		
4		
5		

8. A Taste of Nature

Learning: We know that our ancestors used many wild plants (or their parts) as food. With changing times many of these have been forgotten. By learning about the edible parts and enjoying the taste of such plants, we can keep this valuable traditional knowledge alive.

Exercise: Write about your experience of tasting the natural items and what you learnt out of it. Also list any five food items that you are using at present which you get from wild plants of your region.

Five plants that I use as food

1. _____
2. _____
3. _____
4. _____
5. _____

9. Hidden Treasures

Learning: Nature is full of surprises and interesting things. If we explore by using all of our senses, we can find this hidden treasure.

Exercise I: Please share what you learnt through this activity.

Exercise II: List and draw five of the most interesting things that you found.

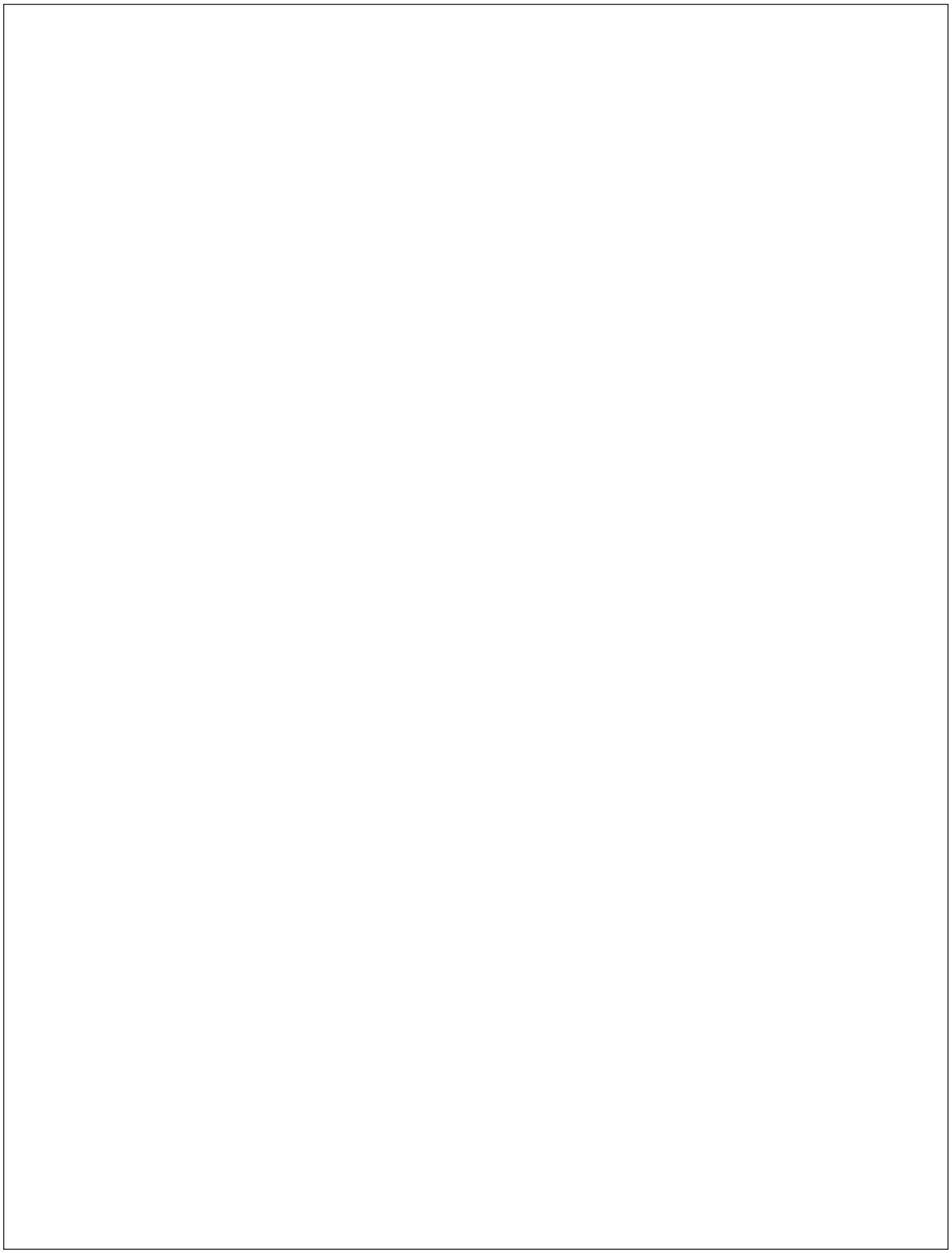
Life in My Neighbourhood

We all now know that the earth is a home for a great variety of life which surrounds us all the time. In a sense, these plants and animals are like our neighbours. Just like we know quite a few things about our human neighbours, how about getting familiar with these plant and animal neighbours? In this section, you will learn and build a positive relationship with wildlife.

10. An Eye for Seasons

Learning: Nature is constantly changing and she announces these changes through various signs around us. By observing our surroundings we can understand the pattern of these changes.

Exercise: Paint the mood and appearance of your favourite season.



11. Knowing Our Neighbours: Plants and Animals around Us

Learning: All our natural neighbours play an important role in running the food webs of the Himalaya. So, they are all important for us.

Exercise I: Draw any five of your natural neighbours that you liked a lot.

Exercise II: How was it to explore the pastures, looking for your natural neighbours? Write how you felt when you went looking for your natural neighbours. Please share an interesting and exciting experience of yours or something unique that you saw.

12. Plants that We Use

Learning: Many plants were traditionally used by people in the Himalaya. Many of these are still used by the *amchis* (local medicine men), but we use very few now. Several plants have become less common and some have even disappeared! Only if we appreciate their importance can we protect them!

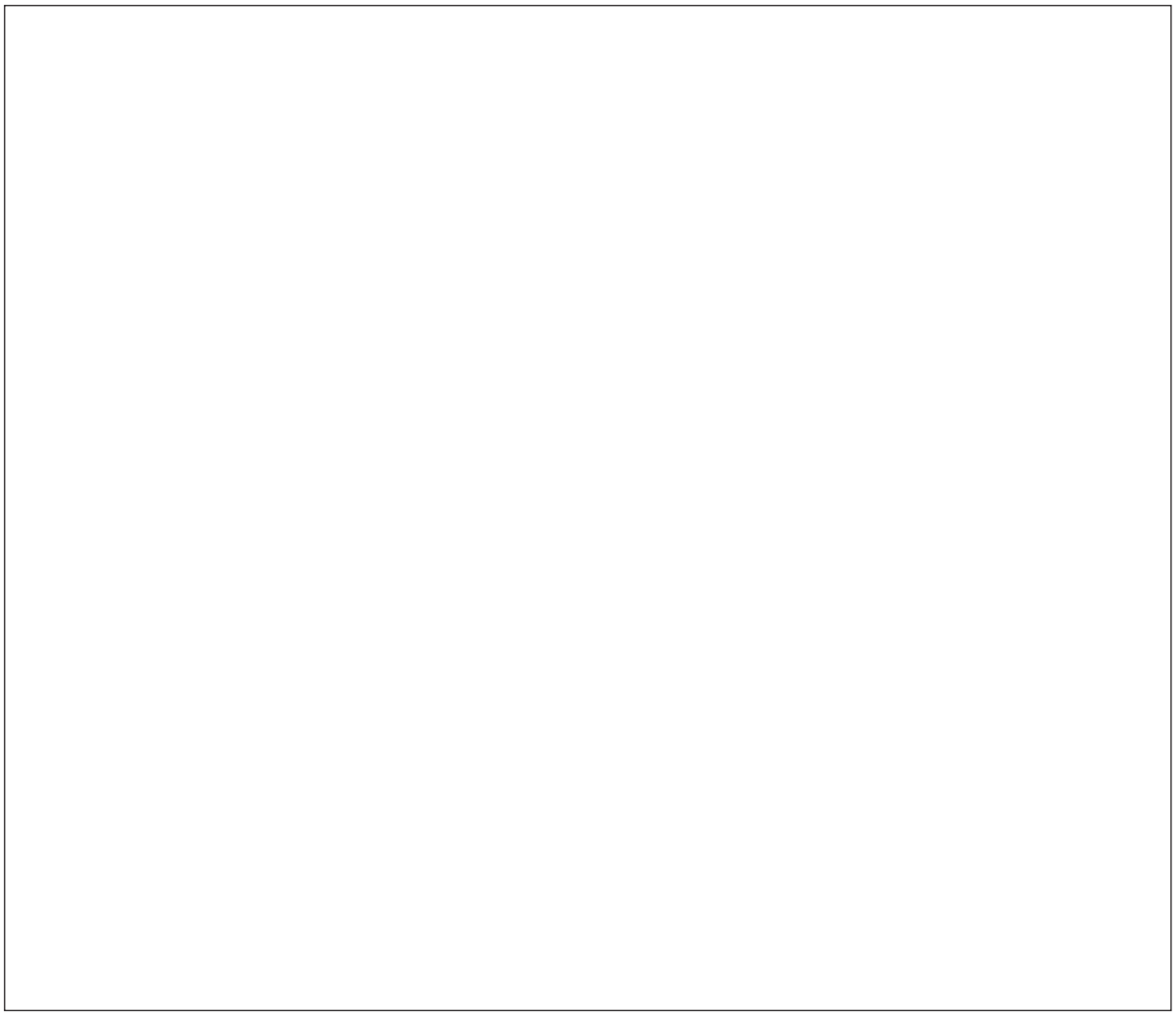
Exercise I: Based on your information, choose ten most useful plants and provide information about these in the table given on the next page.

Green treasures of my region

Name of the plant	Where it grows Farm/pasture/village	Uses Food, medicine for humans/livestock, fibre, fodder, fuel

Information collected by: Village(s):

Exercise II: If you were to choose one plant based on its utility, which plant would it be? Please draw it here. It could be called the Most Useful Plant of the region.



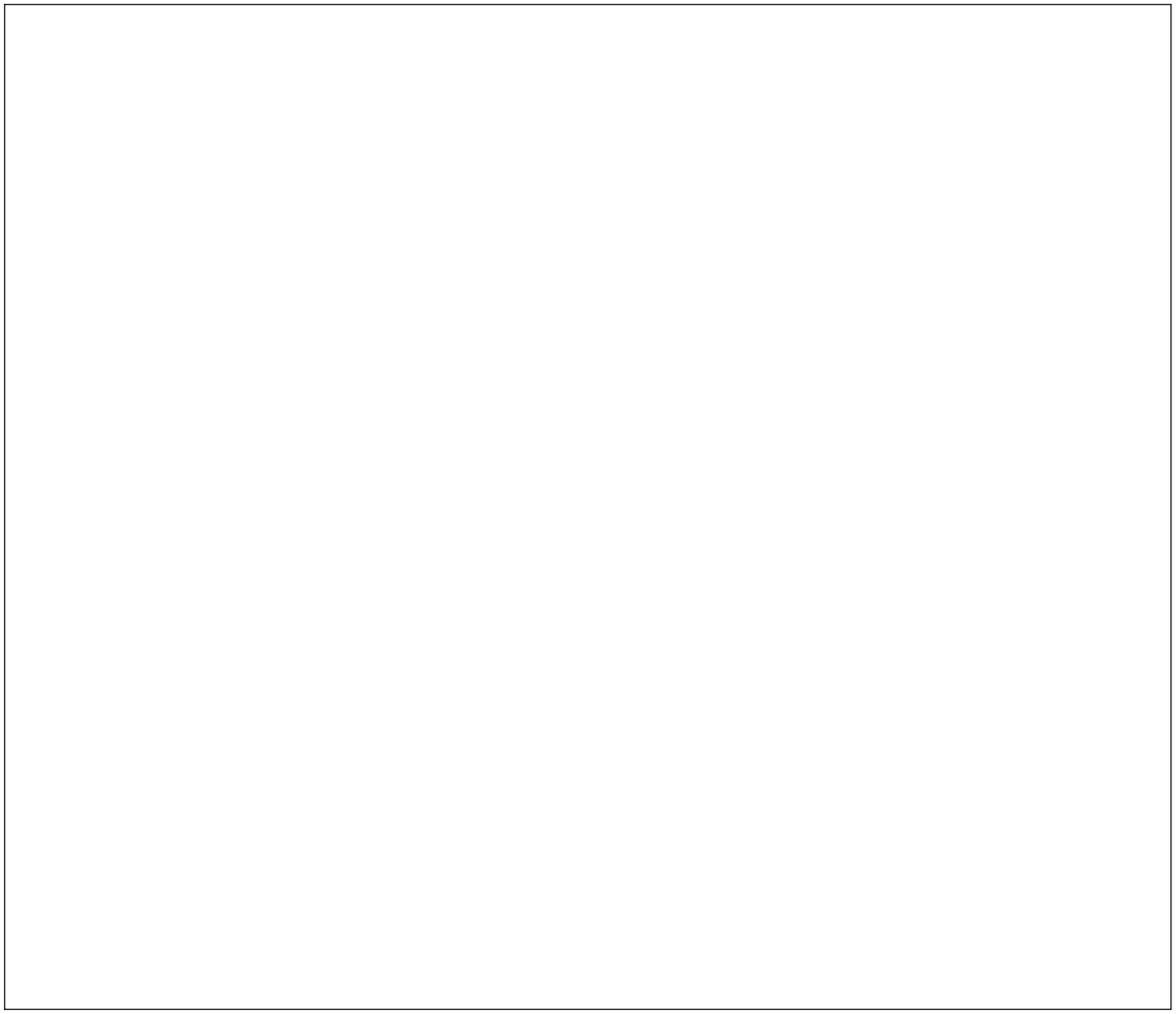
13. My Special Friend

Learning: It is possible and very enjoyable to have friendship with plants. Plants can be great friends and there is a lot to learn from and appreciate in plants.

Exercise I: Please share the biodata of your special friend

1. Name of plant (local or coined by you):
2. Where does it grow:
3. Major features (herb/shrub/tree, height, thorny or not, deciduous/evergreen]:
4. Leaves (shape, arrangement, colour etc.):
5. Flowers [shape, colour, speciality]:
6. Fruits:
7. Uses:

8. Drawing/painting of the plant



Exercise II: Observations of my friend and some experiences

January:

February:

March:

April:

May:

June:

July:

August:

September:

October:

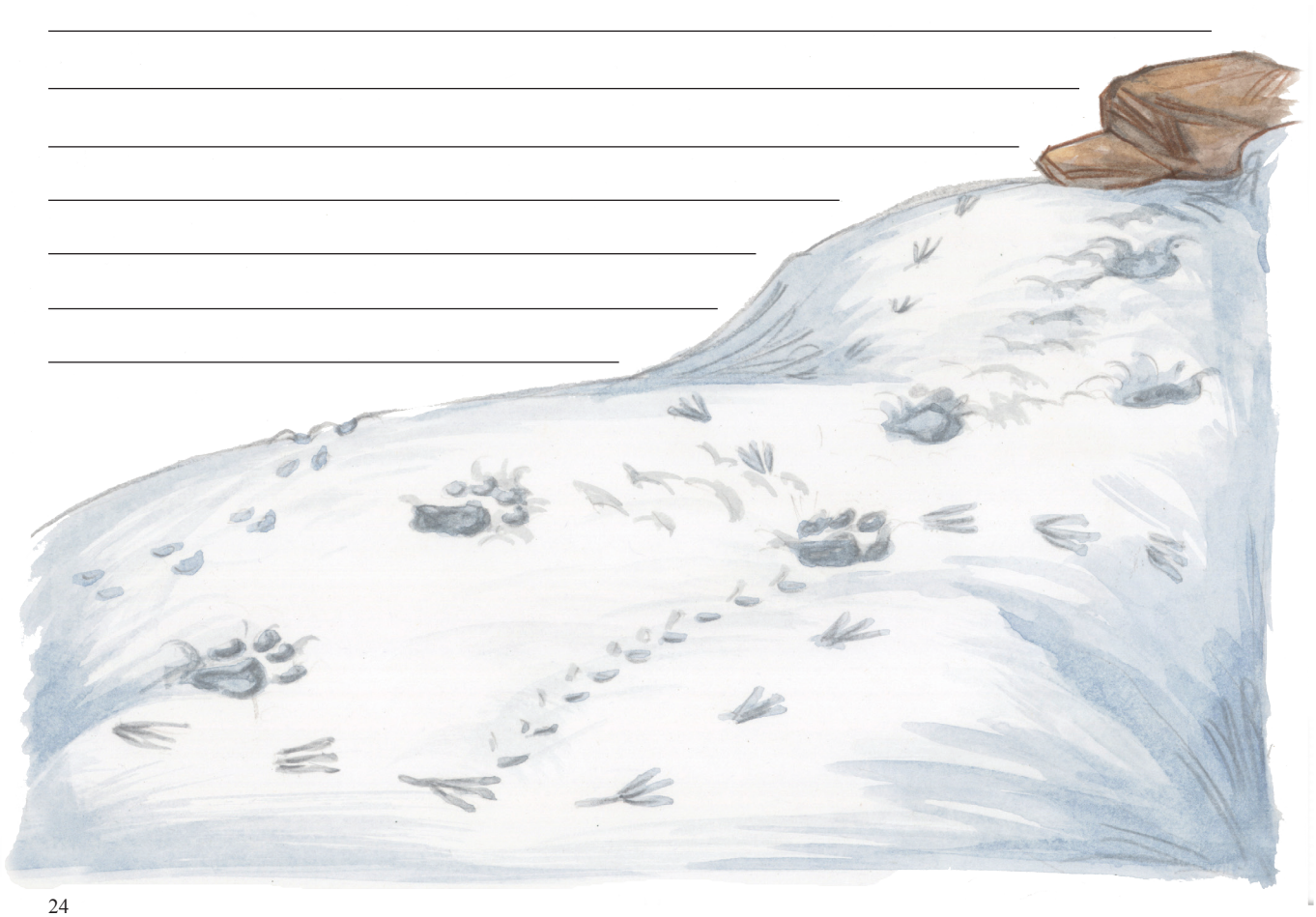
November:

December:

14. Animal Signatures

Learning: Animals leave their ‘signatures’ in the form of droppings, tracks, scrapes, kills, feathers and many others. Just like how our signatures are different, these animals also have different signs that help find out about their occurrence.

Exercise I: Write your experience and learning below in the form of a story. Share any interesting memory of the trail.



Exercise II: Draw and label as many signatures of animals that you came across.

15. Horns, Hooves and Thorns

Learning: Plants and animals develop special structures and behaviour to solve the challenges posed by nature for finding food, protection from enemies/predators and finding partners. These are called adaptations. Adaptations improve the survival of a living being. The down curved beak of Hoopoe (bird shown below) is a good example of adaptation.

Exercise I: Write three examples of adaptations shown to you on the trail.

1. _____

2. _____

3. _____

Exercise II: Share and draw three examples of adaptations discovered by you after the trail.

16. Nono, the Snow Leopard and its Life

Learning: A snow leopard's life is full of difficulties and dangers just like any other wild animal. Snow leopard is endangered and needs our help. To save it means conserving the whole high altitude ecosystem of the Himalaya, which supports our own survival!

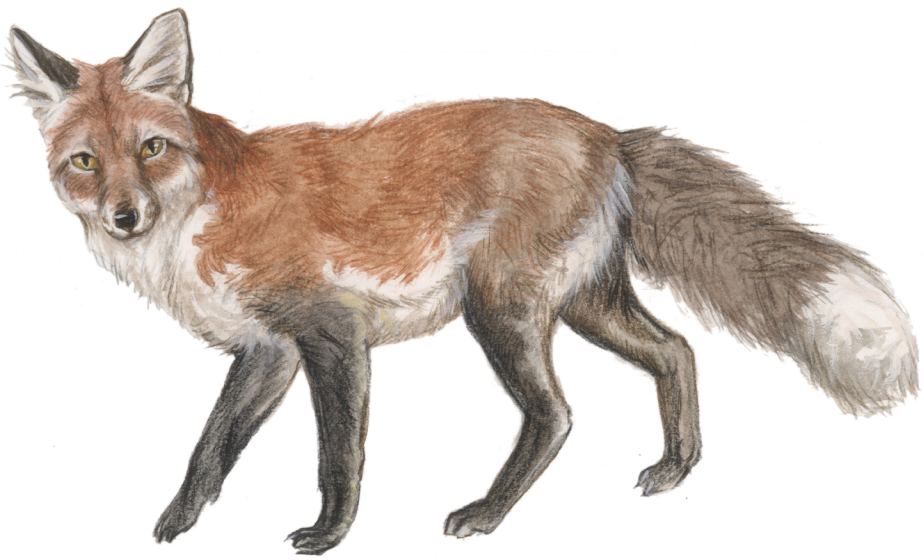
Exercise I: Write in short what you have learnt about a snow leopard's life from the storybook – Nono, the Snow Leopard. Share with us your thoughts on how we can save the snow leopard including what you'd like to do in your area.

Exercise II: Make a drawing/painting of snow leopard.

17. “What If” I’m a Plant or Wild Animal?

Learning: When we take the role of something else then we realize how it is to be that creature. This helps us appreciate the value of each creature and feel more deeply for it.

Exercise: Please share how you felt on becoming another creature and what did you learn out of this experience.



18. In Trouble: Threatened Plants and Animals

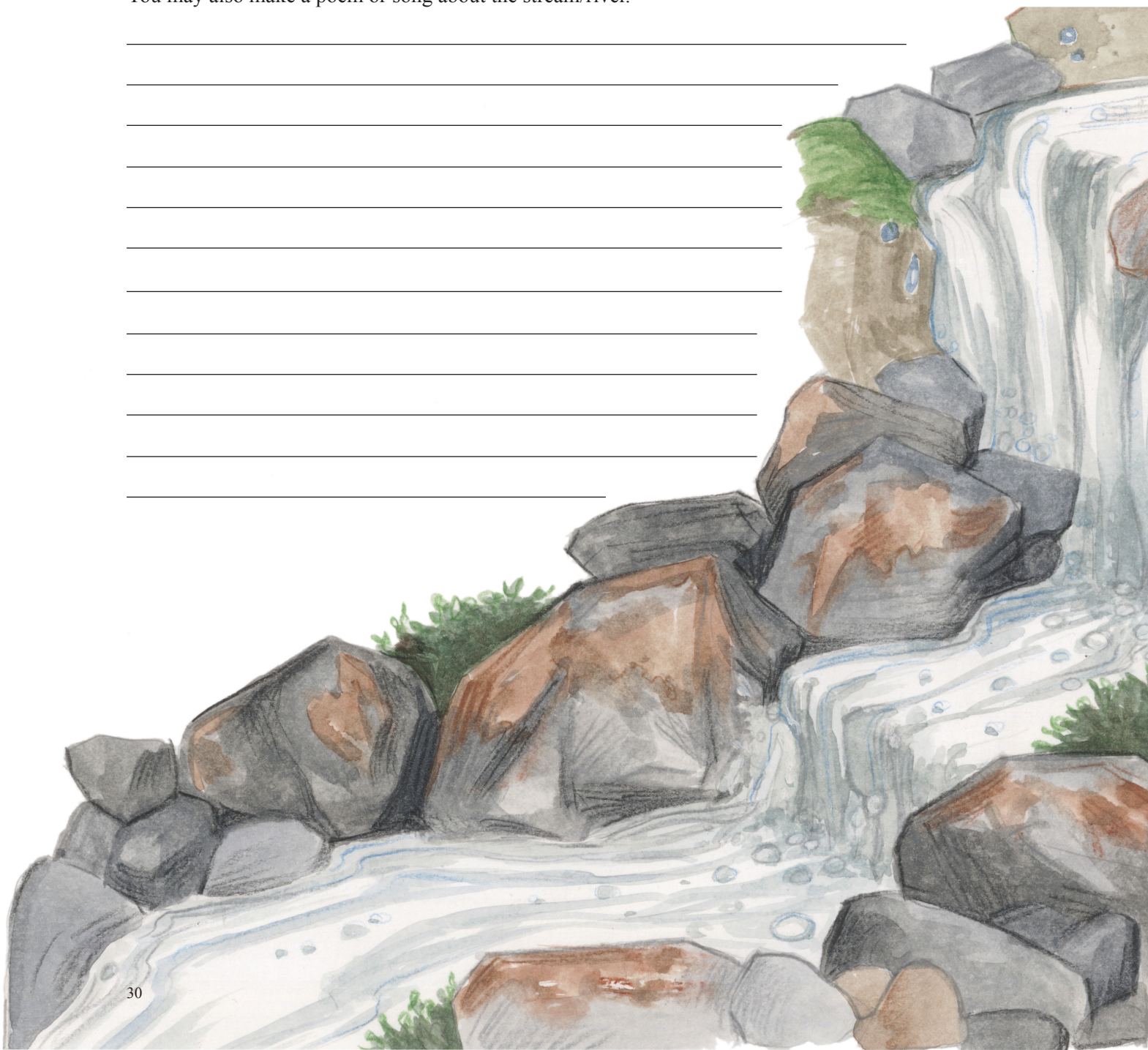
Learning: Many species of plants and animals are in danger on the earth due to various disturbances caused by us in our environment. These creatures are like red traffic signals telling us to be careful in our actions to prevent or own destruction.

Exercise: Make a poster for protecting an endangered species in your region.

19. Water Pilgrimage

Learning: Water is important for all life on earth. It is equally important to know about where we get our water from and how clean/good it is. Water cycle is the great process that keeps moving water on the earth ensuring that fresh water is available to plants and animals (including us).

Exercise I: Please write down your feelings, experience and learning while making the water pilgrimage. You may also make a poem or song about the stream/river.



Exercise II: Draw the water cycle and show how you are a part of it.

20. Looking for Gold

Learning: Soil is not just the top portion of land or dust, but a living medium supporting life and helping us grow our food.

Exercise: Please share what you learnt about soil and the “gold” from the story.

My Lifestyle

The way we live on the earth is called our lifestyle. Our lifestyles differ depending on the culture, traditions and economic situation. And yet, our lifestyle is something that we can choose to a large extent. Since, our lifestyle has an impact on earth's biodiversity, we can reduce this impact by choosing a less damaging lifestyle. In this regard, the most important aspects of our lifestyle are 'energy' and 'materials'. By observing and reducing the use of these two in our daily lives, we can reduce our impact on the earth. The following activities help you make a difference on the earth.

21. No Free Lunch

Learning: Our lifestyles have varying impacts on the earth and her natural habitats and wildlife depending on the way we use energy and materials. For each product that we use, there's a source (where the basic/raw material for a product comes from) and a sink (where the product is used). The farther the source is and the more energy it takes in reaching you (in terms of packaging, transport, advertising etc.), more (ecologically) expensive (with high impact on the environment) it is. Since we choose the way we live, we can (i) reduce the use of such products and (ii) use products that are made locally and/or which are environment-friendly to reduce negative impacts on the earth.

Exercise: Analyze a day in your life to come up with a chart for the daily impact that you have on the earth. Figure out the energy costs (e-cost) of your food items, water, clothes, study material, transport, toys, energy (dung, wood, electricity, batteries, solar panels etc.). For this you need to find out how these items have reached you (means of transport) and whether it needed any packaging (if yes, then what kind?). Use the following table to calculate rough costs/impacts of the item. For instance, if you want to find out the ecological impact of tea, you must first consider its ingredients i.e. tea leaves, water, milk and sugar. Now, tea is not local for high altitudes of the Himalaya; it is processed, packaged and transported. Thus, its energy cost would be 60 e-units. Milk and water are locally obtained and not packaged, so their cost is 10 (5 + 5) e-units. Sugar is similar to tea and costs 60 e-units. Thus, having tea once costs 130 e-units. If you drink tea (one cup) three times a day, the e-cost would be 390 e-units. It's simple to find the daily costs of all items in this way.

Type of product	e-cost*
Raw product (locally available)	5
Raw product (local) with packaging	10
Raw product (transported) unpackaged	20
Raw product (transported) packaged	25
Processed product (local), transportation	30
Processed product with packaging and transport (long distance, outside state)	60
Processed product with packaging and transport (foreign good/imported item)	100
Energy from decentralized/local source (fuel wood, dung, solar battery – cost of production & transport will be high as it is not local, so calculate 50 e-units)	25 #
Energy from centralized channel (hydro, atomic, thermal, wood) etc.	50 #

* e-cost is the energy cost of a product # per unit quantity (i.e. One kg of dung)

The total e-cost of all the items used by you in a day is your daily ecological impact. Enter this for each item by making a similar table given below. Find out your monthly and yearly impact by simply multiplying the daily cost by 30 and 365 days respectively. You can also find out a rough overall environmental impact of your village by multiplying your energy and material cost by the number of people in your village. Then you may compare the analysis of other students' lifestyles with that of your own.

Example: My daily environmental impact score-card

Item	e-Cost
FOOD	
Tea	375
Sattu(bread)	30
ENERGY	
Cow dung	75
Solar light	25
Wood	50
Total…..	???

22. Keep the Capital, Reap the Interest

Learning: Mahatma Gandhi had said, "The earth has enough for everyone's need, but not for everyone's greed." In simple terms this is how he described what is 'sustainable'. If you haven't still understood this idea from the game that you played, you may request your teacher to explain or conduct the activity again. Find out about how your ancestors lived a life in harmony with nature? Is it working now? Why? Or, why not? Is our present lifestyle sustainable?

Exercise I: Please write down what you learnt through this activity in the space provided below.

Exercise II: Observe one full year's farming cycle in your village and write two ways of doing sustainable agriculture which your ancestors had used and are still in use. Explain these in detail.

23. Water Wise

Learning: To conserve water, we first need to find out about the way we use water in daily lives including household usage as well as in farming, tourism etc.

Exercise: Find out how much water is used daily in your home. You can first measure the quantity as number of buckets or drums and then convert it into litres. Multiply this with the number of houses in the village to get a rough idea of household water consumption. Also find out the quantity of water used in farming, school and hotels (which ever is possible). Then find the quantity of flowing water from the source in the village. You may wonder how can that be done. It's easy. Go to the source (tap/pipe) from where you fetch water, collect it in a bucket of known size for one minute. This will give you approximate volume of water in terms of litres/minute. You will need a watch for this. Multiply this by 1,440 to get water volume per day (i.e. 24 hours = 1,440 minutes). Now, you have total inflow per day and use of water per day. This can now be compared.

Make a chart/graph of water flow vs. use in my village for different categories e.g. household (drinking/ washing clothes etc.), tourism, school etc.

24. Golden Legacy

Learning: Many human activities (road construction, farming) and natural forces like wind and water lead to loss of topsoil. This is called soil erosion. Erosion and degradation of soil affects crop production and health of pastures (which affects our livestock).

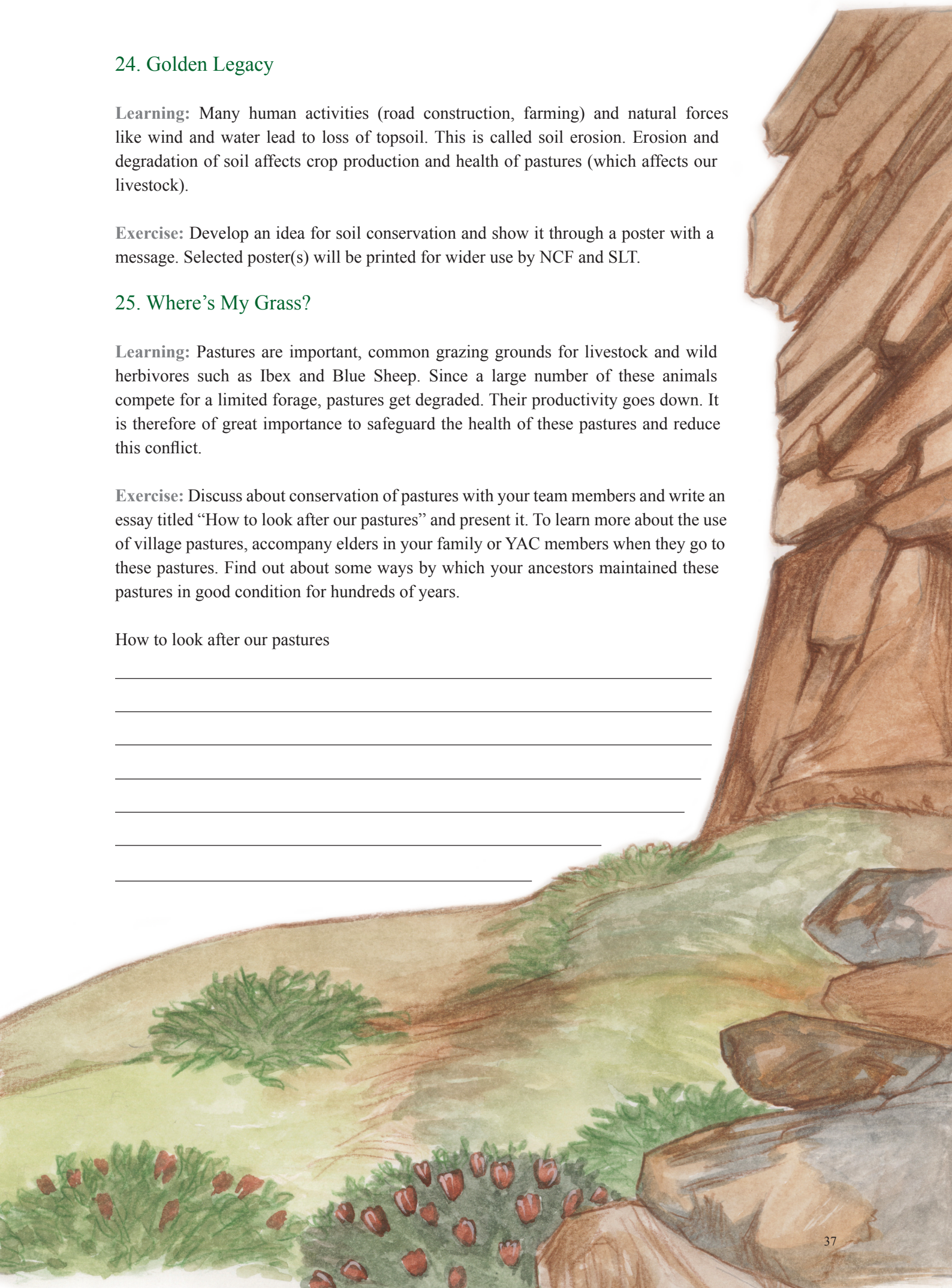
Exercise: Develop an idea for soil conservation and show it through a poster with a message. Selected poster(s) will be printed for wider use by NCF and SLT.

25. Where's My Grass?

Learning: Pastures are important, common grazing grounds for livestock and wild herbivores such as Ibex and Blue Sheep. Since a large number of these animals compete for a limited forage, pastures get degraded. Their productivity goes down. It is therefore of great importance to safeguard the health of these pastures and reduce this conflict.

Exercise: Discuss about conservation of pastures with your team members and write an essay titled "How to look after our pastures" and present it. To learn more about the use of village pastures, accompany elders in your family or YAC members when they go to these pastures. Find out about some ways by which your ancestors maintained these pastures in good condition for hundreds of years.

How to look after our pastures



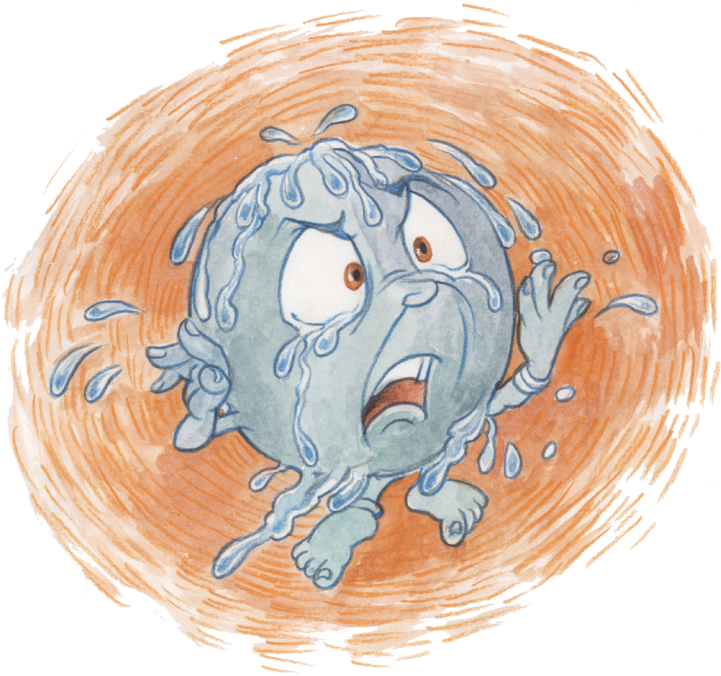
26. Living with Wildlife: Co-Existence or Conflict?

Learning: Each species has a right to exist on earth and plays a unique role in the food web. To live in harmony with wildife, we need to think of ways in which damage to crops and livestock is compensated while protecting the wild animals in their natural habitasts.

Exercise: Write an essay on “Living with wildlife: problems and solutions. Consult village elders and youth for advice and guidance.

27. The Earth is HEATING up!

Learning: Increasing amounts of CO_2 (due to high use of fossil fuels such as petrol, diesel, coal and gases) combined with the decreasing plant cover on the earth is leading to an imbalance in the configuration of the earth's atmosphere. High amounts of CO_2 and other greenhouse gases are leading to rise in the earth's temperature. This is called *Global Warming* or *Greenhouse Effect* and likely to lead to changes in climate and health of food chains; especially in the high mountainous region of the Himalaya.



Exercise I: Find out from village elders about the changes they have seen during their lifetimes in glaciers, streams and snow fall in your village/region. Write these down in the space below.

Exercise II: Share any three things that you choose to do to reduce your contribution to Greenhouse Effect.

1. _____

   _____

   _____

2. _____

   _____

   _____

3. _____

   _____

   _____

28. What Does the Garbage Tell You.

Learning: Solid waste consists of different items of which some degrade naturally while others cannot. So, these items should be disposed off separately. Items like plastic do not degrade naturally, metal and leather take long to degrade, batteries toxic (harmful) and only few waste products are naturally converted into soil. We thus need to use more and more items that degrade naturally and tell others about it.

Exercise I: Find out which garbage items are listed below. Which item goes where? Please write the names of appropriate items against the waste category to which they belong. Think about 10 other waste products and show the right place for these below:

1. LAGSS
2. LAPSTIC TOTBLE
3. REBDA
4. EATBRYT
5. ENPLIC
6. PREAP
7. HOSES
8. DOLC-KRIND NAC

Answers: glass, plastic bottle, bread, battery, pencil, paper, shoes, cold-drink can,

1. Degrades to soil

2. Takes long to degrade

3. Remains forever

4. Toxic waste

My Village

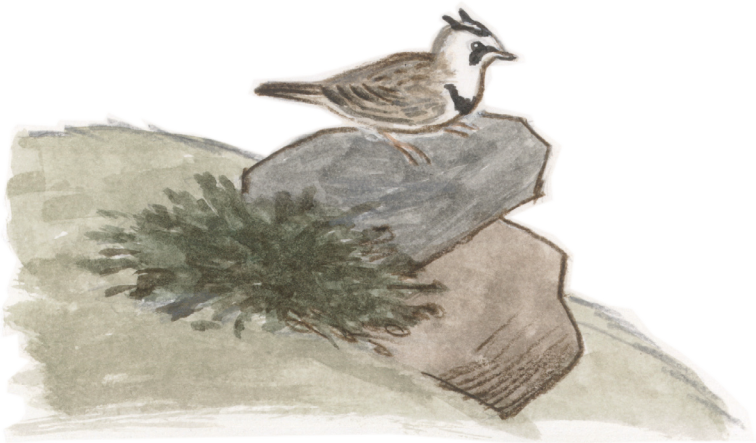
Any village in the high Himalaya is a closely-knit world. The challenging weather and physically tough life make it natural for people to live with mutual co-operation. It is here that the traditional ecological knowledge and cultural wisdom of centuries can still be seen. Though times are changing fast and the villages that were not even connected by a proper road today have excellent means of communication and transport. It is really important to pay attention to the man-nature relationships in the villages before things change beyond recognition. We have opportunities to conserve both wildlife and age-old human wisdom and develop sustainable wildlife conservation models where local communities live in harmony with nature and share the joys and benefits of such an arrangement.

29. Biodiversity in My Village

Learning: Biodiversity is the diversity of life that you see around. Some biodiversity is local, some of it has been brought from outside or has arrived by accident (e.g. spiders or cockroaches often go places with people's luggage). All creatures that belong to a place (have lived in that place for very long) are called 'native' creatures, while the ones which have been brought by humans or have arrived from far places are called 'exotics'.

Exercise I: What is the biodiversity of your village? You have already found out about the plants and animals in "knowing our neighbours" activity. All you need to do now is to make a small booklet along with pictures, descriptions and map using that information. Discuss with your teachers about it. Get involved with the youth from your village (YAC) who know about plants and animals. You will also benefit from discussions with village elders.

Exercise II: You can also make a list of 'species needing attention' (those species which were common or widespread earlier but are now difficult to find) for your village in tis booklet with help from the elders and youth.



30. My Village: Past, Present and Future

Learning: Many changes have taken place in the physical, biological and cultural aspects of your village. People view these changes differently and have varied perspectives on the future of the village.

Exercise I: Meet the elders and youth (5 men and women each between 30 to 70 years of age) of the village and take their views on what was the past environment of the village. Use the questions below as clues and ask more. Write the responses in your notebook. Ask them to compare these responses with the situation at present. Then ask these people to talk about how they visualize their village in the coming 50 years. Summarise the collected information. Carry out an analysis of the responses including whether the village has degraded or improved in environmental terms/overall conditions. Your analysis should focus on the following:
How has agriculture, pastures and livestock changed? What are the changes in climate? What is the difference in the status of wild animals and plants? How are social and cultural changes proceeding? What difference can be seen in the role of Govt.? What have changes in population of people and livestock led to?

Write your team's findings in the space given and submit the same to the Youth Awareness Club (YAC) of your village.

What was the population of the village?

What did people die of generally? Did they lose many children?

What did people do for medical attention/emergencies? Who treated them and how?

Did people have more livestock or less? What did it consist of?

How was the village pasture? What is the difference now?

What were the crops grown? How was farming different from today?

What was their main food?

What were the means of transport? How did they get things of daily use?

How did they communicate with the outside world?

How did they manage fuel? What was the main source? Was it easily available?

What was the status of water availability, snowfall and rain?

Did they see more wild animals in those days? Could they tell which animals were common? Is there any difference between past and present situation?

What about plants? Are there any which have disappeared?

Tell something about the customs and social systems? Is there any which has been lost?

How was the influence of armed forces and the Government?

What was the status of education? Are schools playing their role?

My Village: A hundred year journey

Exerecise II: Write an essay titled “My village: My vision” in separate sheets.

31. Most Knowledgeable Elder Contest

Learning: In the olden days, when people had direct daily contact with nature and depended on her for their daily needs, they had good knowledge about plants, animals and natural phenomena. Such knowledgeable people are still around and need to be respected for their traditional knowledge.

Exercise I: Meet members of YAC, monks (lamas) and elderly people in your respective village and find out about people who are knowledgeable about local wildlife, nature and geography/natural phenomena. Based on this information, contact the concerned people and interview them (up to five people per village) using questions given below. Supply this information to local YAC and NCF staff. Their field knowledge will be tested by a committee formed by the scientists from NCF/SLT as well as Youth Council of Kibber village. Based on these tests, up to 15 such people will be honoured and awarded prizes.

Criteria

Plants

How many different plant species can they identify?

Something about their form, leaves, flowers etc.

Where do these plants grow and why?

Animals

How many different animal species can they identify?

What are the habitat preferences of these species and what's their biology/ecology?

Can they identify these animals' presence from indirect evidences like calls, tracks, feathers etc.?

Uses of plants and animals

What do they know about the uses of local plants and animals?

Field Test Criteria

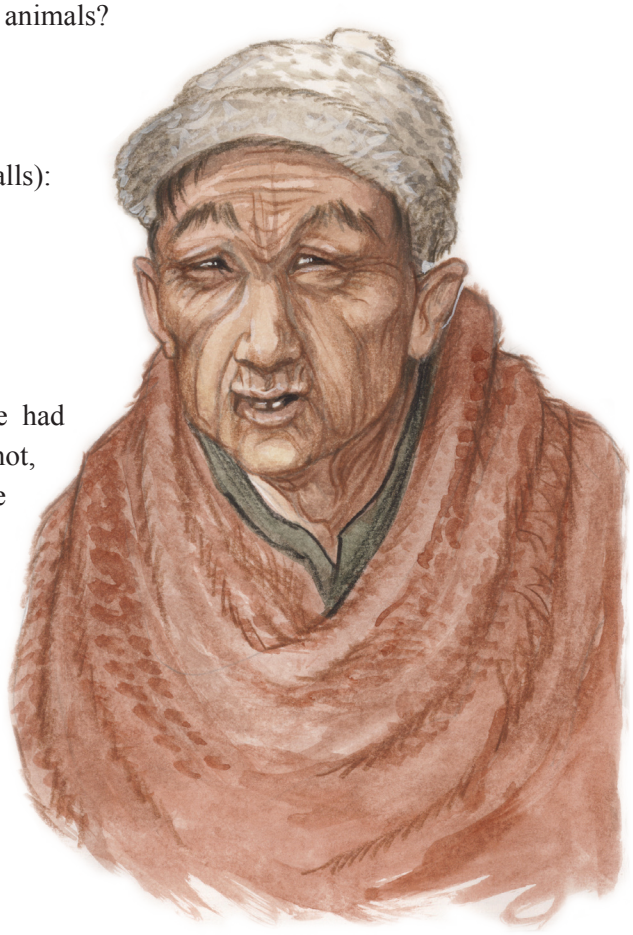
Plant identification: 50 points

Animal identification (including signs, tracks and calls): 50 points

Uses of plants and animals: 50 points

Ecological and cultural processes: 50 points

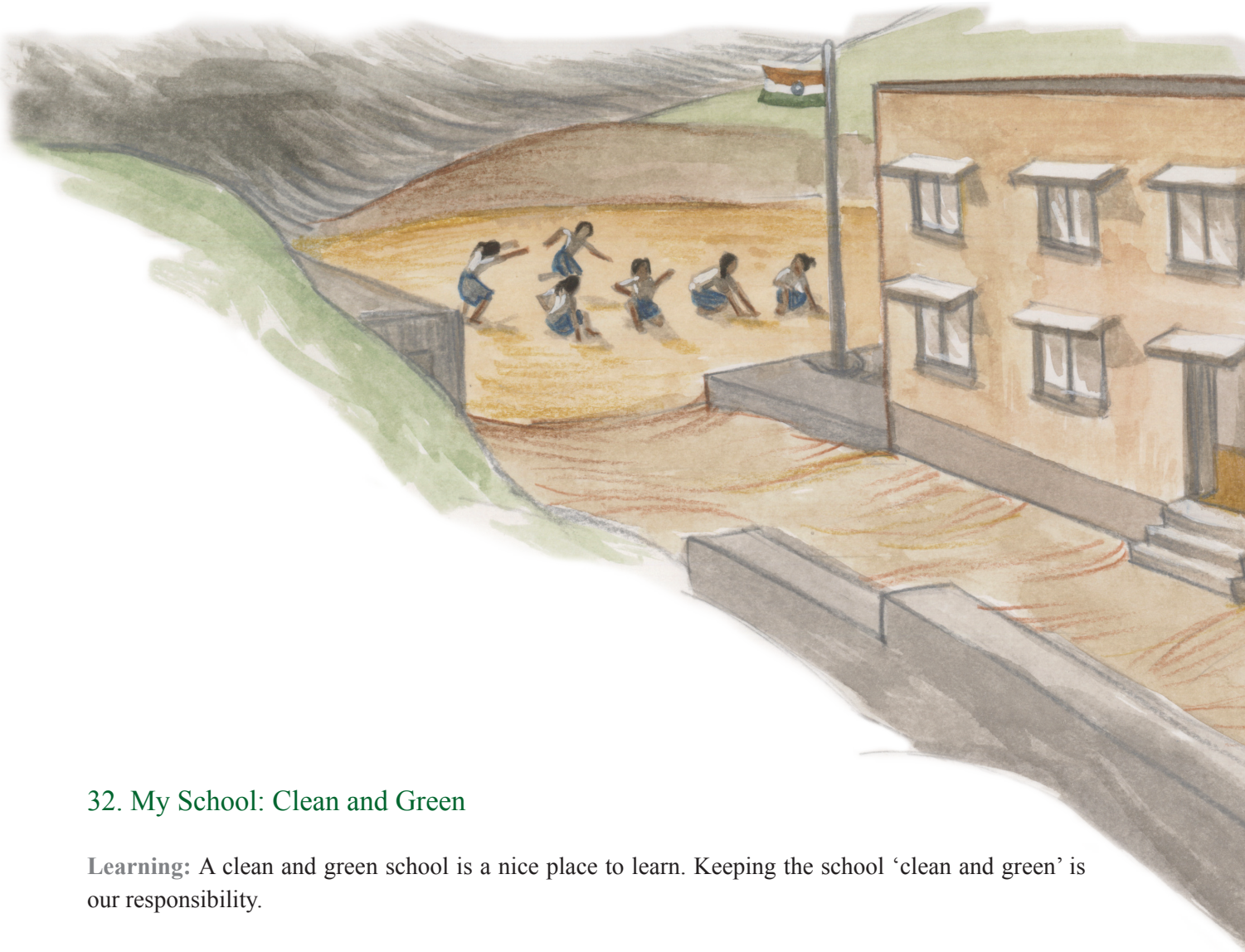
Total: 200 points



Exercise II: Did you even think that your village had such knowledgeable people? Well, if you did not, here's the proof. Just write down an essay about the knowledgeable elders of your village (their life story) and don't forget to include what you learnt through this entire exercise.

My School

Most of you spend about half of your day at the school. How will it be if your schools were clean and green, where you will hear birds sing and watch plants grow! A school where different plants and animals share the space and give you joy will be liked by all, isn't it? The activities in this section will help you improve the natural environment of your school.



32. My School: Clean and Green

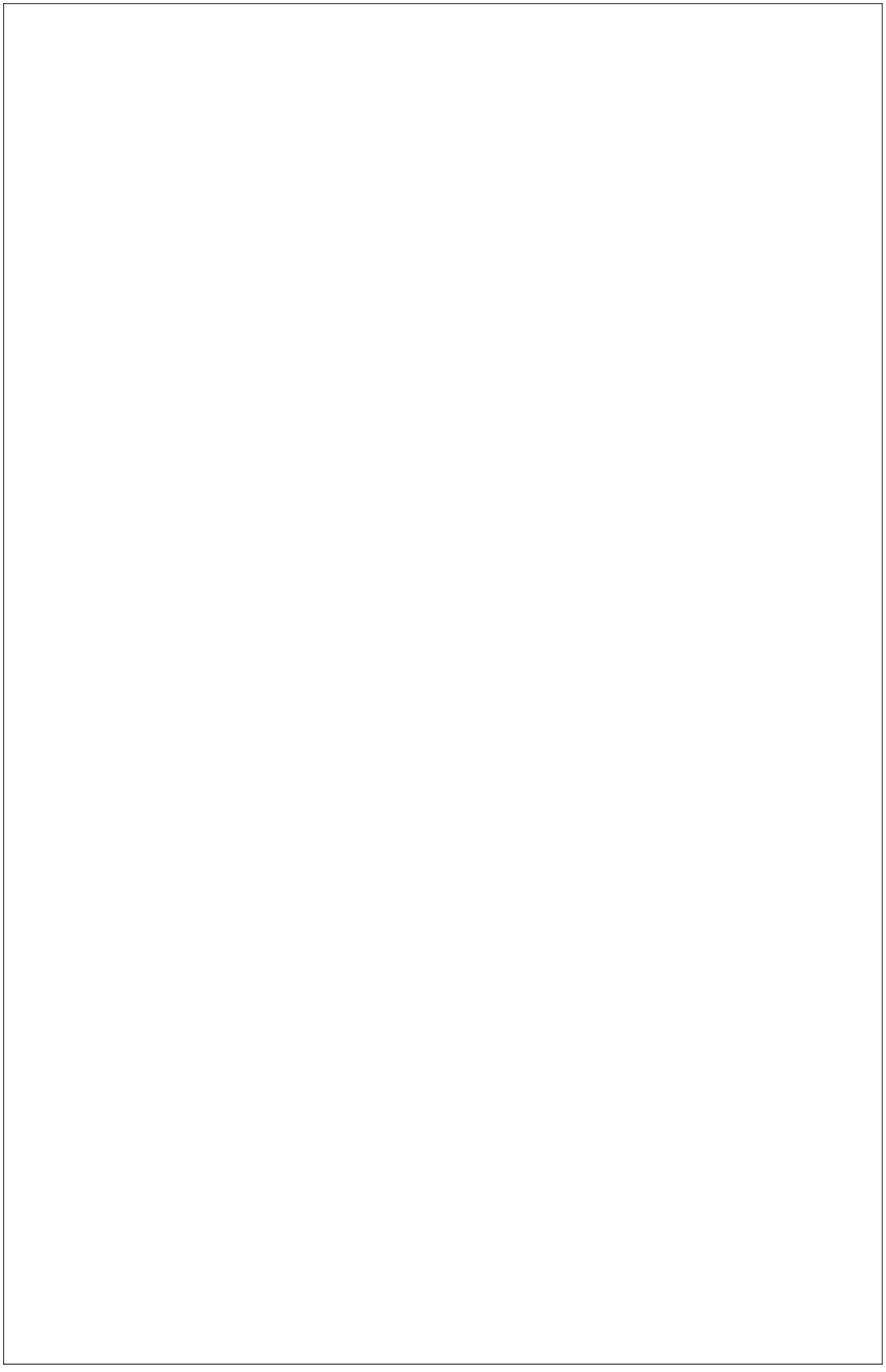
Learning: A clean and green school is a nice place to learn. Keeping the school 'clean and green' is our responsibility.

Exercise I: Write about how you think your school campus can be improved and made "clean and green". You may explain with the help of a map.

33. Wildlife around My School

Learning: Every spot on earth which has wild plants and animals is interesting. We can learn a lot about nature by visiting such places near the school.

Exercise I: Draw/paint 10 different plants and animals that you encountered in the natural spot or trail near your school.



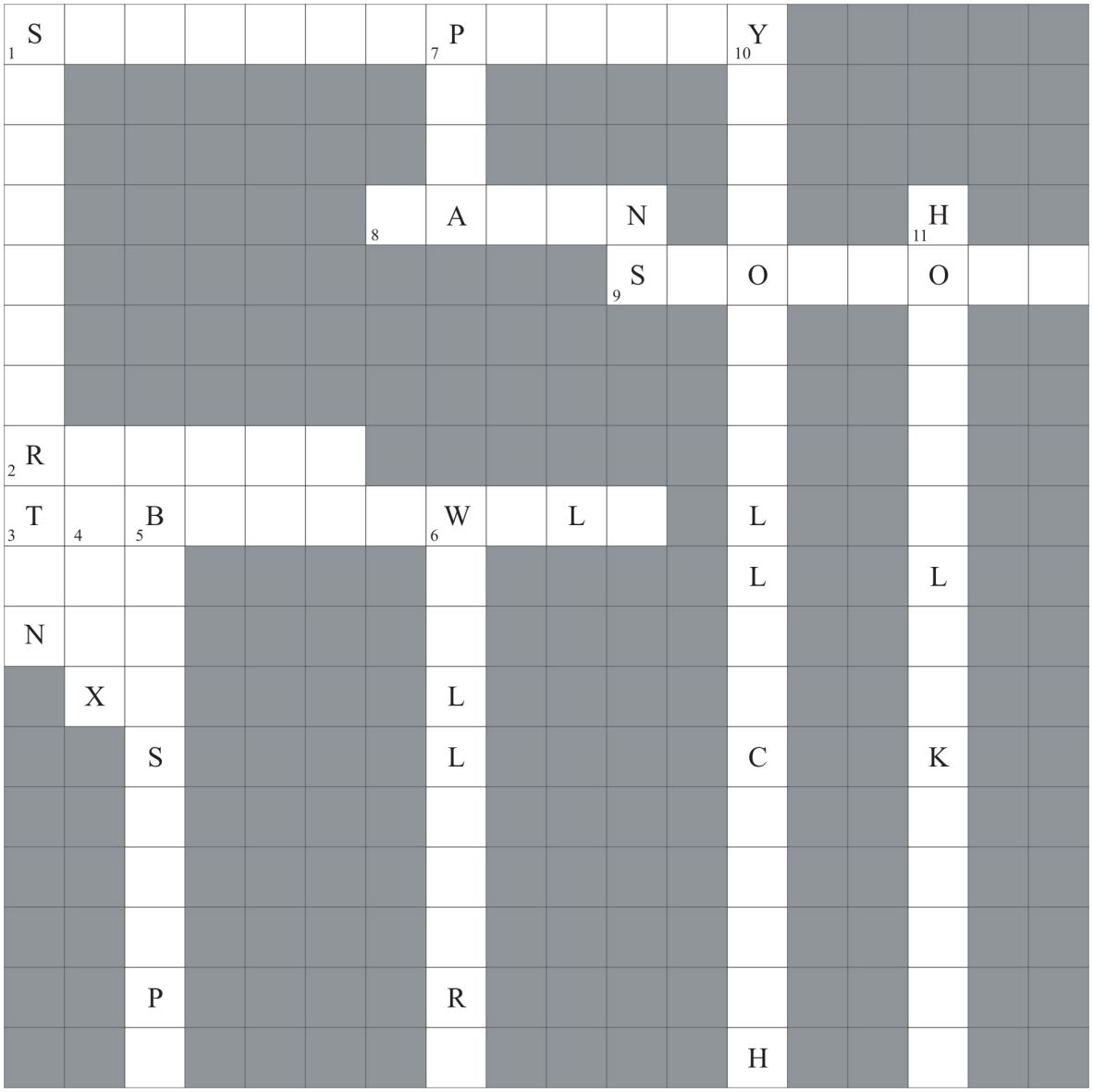
Exercise II: Solve the wildlife cross-word using the clues given below.

Across

1. The largest predator of Himalayan high altitudes
2. A smaller, wild cousin of the dog considered cunning
3. Dog-like predator often found in groups
8. Largest member of the crow family in the world
9. Who hasn't heard the loud call of this cousin of domestic chicken?

Down

1. A thief of meat form houses
4. The wild goat with massive down-curving horns
5. A confusing herbivore that has features of both sheep and goat
6. The hare of the high altitude Himalaya
7. A small, rat or rabbit like creature living in rock burrows
10. Crows of the high altitude, with yellow beaks
11. Curious small bird of the high altitude with horn-like feathers on head



My Contribution to the 'World' Where I Live

"There's only one corner of the universe you can be certain of improving, and that is your own self." - Aldous Huxley

As we've seen earlier, the crux of nature conservation is how we humans shape our lifestyles. It is our use of energy and materials that will largely determine how life will fare on this unique planet. Our earth can remain rich and healthy only if we all act, first in our own lives and then collectively as a society. It is important to target such a change among your HNC children and the activities below are just a beginning in that direction…

34. How can I help in conserving wildlife of the Himalaya.

Learning: This is the time to summarise all that you have learnt from the activities and games as part of Himalayan Nature Club activities in your school. Since you are now aware about the wildlife wealth of the Himalaya, the problems it faces and our role in its consetrvation, here you will write down your commitment for conservation.

Exercise: My role in wildlife conservation in the high altitude Himalaya

35. Snow Leopard: the symbol of our co-existence with wildlife

Learning: If we conserve the snow leopard as a symbol of the rich willdife of the magnificent Himalaya and our desire to protect the same, it will be a truly remarkable achievement.

Exercise: Write an essay by summarising your views and thoughts on Snow Leopard as the symbol of our co-existence wit wildlife in the Himalaya.

nature
conservation
foundation

NCF was set up by a group of wildlife biologists in 1996. It is a non governmental organisation involved in conservation of wild species and their habitats in India. People working with NCF pursue their interest in wildlife conversation in different parts of the country from the cold deserts of Spiti in the Trans-Himalaya to the rain forests of Arunachal Pradesh and Western Ghats. NCF achieves its mission through research and conservation programmes involving the local communities, other institutions and the government.

Snow
Leopard
Trust

The oldest and largest organisation dedicated to the conservation of the endangered snow leopard and its habitat in the mountains of Asia since 1981. SLT works through developing science-based priorities and carries out all its conservation work in community partnership. Currently, SLT is actively involved in conducting programmes in most snow leopard range countries. The India Programme of SLT is run in partnership with NCF.