



TEACHER  
MANUAL

# Earth Quest

ENVIRONMENTAL SCIENCE

GRADE 3

TEACHER MANUAL



# Welcome

*WELCOME DEAR TEACHER,*

*It is always wonderful to interact with teachers who are directly connected to the development of children in various field of study in their school life.*

*Environmental Science is a subject which gives a peek at the world we live in, to a child. Its interactive story telling and amusing characters bring life to the topics and at the same time, enhance the learning process.*

*We, at Greycaps, appreciate the time and effort you are giving to this series and being part of a future in interactive learning.*

*P.ick B. Lin*



## What's in it?

How will  
this manual  
help?

*This manual is designed to help you, the teacher, to understand:*

- 1. The objective & offerings of the book*
- 2. The content structure and format*
- 3. Teacher inputs that enhance the student experience month-on-month.*
- 4. The benefits to the teacher and student*
- 5. Answers to various exercises*
- 6. The measurable take away*

Honeycomb series

About Earth Quest

Meet Xeno and Lily

Structure & Framework

Features

Objectives of Earth Quest 3

Chapter summaries (incl. exercise answers)

Evaluation

Benefits

The sections  
you will find...

## Honeycomb Series

We, at Greycaps, are proud to present a textbook series with a difference, which enhances the teaching and learning experience.

### The Philosophy

The Honeybee is an intriguing creature in the animal kingdom. Its characteristics reflect being adaptable, agile, well-organised, creating synergy and working in harmony. Its sole purpose is to create the honeycomb and strive for perfection in creating each hexagonal cell in the honeycomb. The Queen Bee gathers the efforts of all the Honeybees and motivates them to strive for perfection.

We believe that this life skill can be borrowed from nature and applied into the school classroom.



Every teacher is like the **Queen bee** – focusing on students' different capabilities and striving to attain harmony within the classroom.

Each student is like a **Honeybee** – focusing on better learning and perfection.

This novel philosophy, initiated by Greycaps, is the cornerstone by which we create engaging material for our young learners.



# Honeycomb Series

## OBJECTIVES

### CO-EXISTENCE IS THE KEY

Learning is a collective effort and not an individual effort. Group learning enhances better understanding and decreases dissonance among students.

### INTEGRATION ON LIFE SKILLS INTO TEACHING METHODOLOGIES

Learning takes place in every walk of life – from taking our first baby steps to landing a person on the surface of the Moon. Learning from life skills is, perhaps, the most essential part of overall student development.

### BRIDGING THE GAP

Students in a classroom learn at different levels. Therefore, there is need for the teacher to adopt various innovative methods to bridge gaps between the understanding levels of the first child and the last child.



TEACHER  
MANUAL

# About EARTH QUEST



Earth is changing in a big way. To capture the changing environment and equip our children to be conscious of the changes, Earth Quest is a book that takes young learners on a journey to explore the world around them.

Equipped with a storytelling format, it is tailored to be generationally relevant to children of this era. Engaging students through a storyline, Earth Quest is a relaxed, fun way to learn the basics of environmental science and to grow up as responsible inhabitants of Planet Earth.

THE  
**HONEYCOMB**  
SERIES



# Hello!



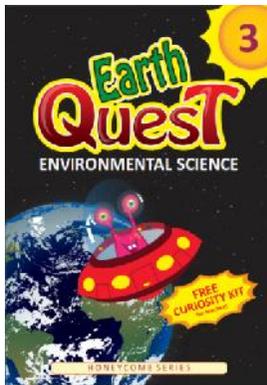
Meet **Xeno**, an alien from outer space who discovers an unusual blue-green planet and descends upon it to explore it. Once he lands on this planet, he meets Lily and learns a lot about Planet Earth.

In grade 3, every child is newly introduced to the world and to different concepts. In essence, each child is like Xeno, discovering and exploring the world for the very first time.



## Structure & Framework

### Student



**TEXTBOOK**  
Equipped with a storytelling format and many other exciting features.

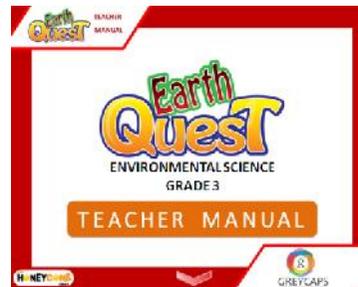


**EVALUATION**  
Assessment sheets provided online for teachers to evaluate students.

### Teacher



**CURIOSITY KIT**  
An aid provided for teachers to reinforce concepts through quizzes and other activities.



**TEACHER MANUAL**  
provided online to act as a guide for teachers

## IN THE TEXTBOOK

# Features



The creation of characters brings concepts to life and enables better learning.

Interactive exercise formats at the end of each chapter follows the concept of learning by teaching.



Activity based learning becomes an integral part of overall child development.



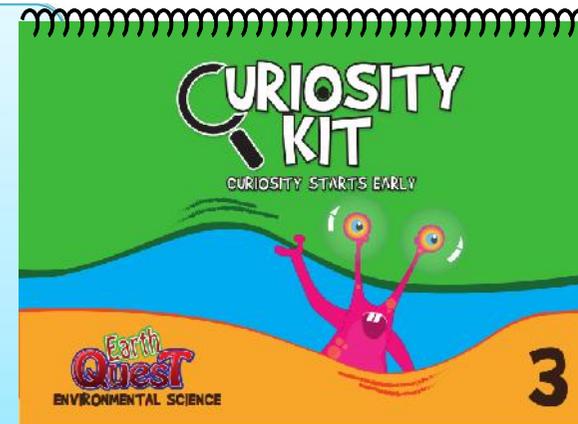
### PEGGY'S CORNER

Interesting trivia based information that enhances knowledge.

## IN THE CURIOSITY KIT

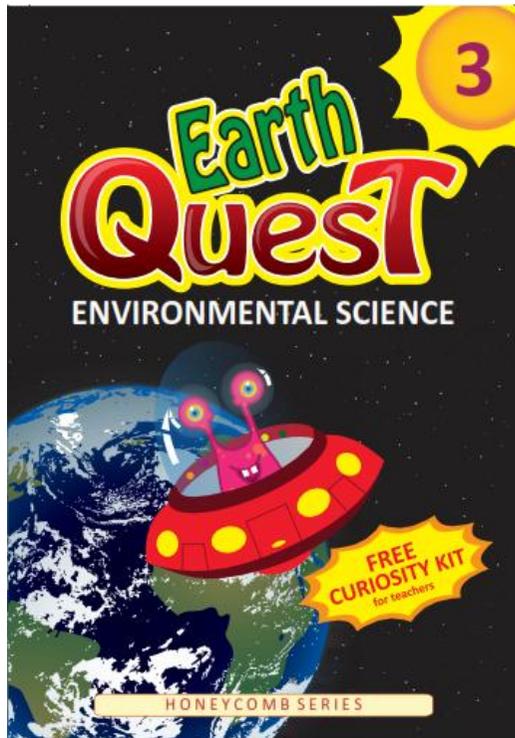
# Features

The **Curiosity Kit** is designed to reinforce teaching material in a fun and innovative way for school students. It is a set of activities and games which will enable teachers to create a fun filled atmosphere in the classroom. It ensures wholesome learning and easier recall of facts related to the subject at hand.



- 🔍 The Earth Quest Grade 3 kit contains 62 cards.
- 🔍 The cards are divided into chapters in tandem with the textbook, and are colour coded.
- 🔍 Each chapter contains activities with a set of instructions for the teachers and enumerates how it will be beneficial for the students.

## Objectives of Earth Quest 3



Earth Quest 3 continues with understanding surroundings and how we interact with them. Students will be acquainted with their immediate environment and then progress towards understanding the world at large.

The objectives of Earth Quest 3 are as follows:-

- Sparking curiosity (new topics)
- Enlist the assistance of narrative learning
- Encourage learning by teaching
- Encourage learning through activities

# Chapter Summaries

## LET'S EXPLORE EARTH

MYSELF

FOOD AND WATER

RECREATION AND PLAY

CLOTHES AND SHELTER

LIVING AND NON-LIVING  
THINGS

OUR ENVIRONMENT

ANIMAL WORLD

COMMUNICATION AND  
SAFETY

WORLD OF PLANTS



# Chapter Summaries

## MYSELF

### 1 Parts of the Body

In order to understand themselves completely, children need to be aware of their physical characteristics. The chapter gives them a brief understanding of the human body.

### 2 Good Habits

A child's overall development is incomplete without good habits and manners. These need to be inculcated at an early age, in order to turn into lifelong practices. The chapter talks about the basic habits that a child needs to learn in order to have a wholesome upbringing.

### 3 Grandparents

This chapter teaches children the importance of staying connected with their grandparents. It also inculcates the values of kindness and compassion in the children and tells them how to stay in touch with their roots.

## MYSELF

( Answers )

1

Parts of the Body

**DO  
THIS** Page  
7

Brain, Elbow, Heart, Stomach, Leg



Page  
9

1) Give reasons for the following.

- a. Because sharp objects can hurt our ears.
- b. Watching television from near can hurt our eyes.

- c. This prevents dirt and germs from going into our body.
- d. This will keep the teeth and gum healthy and clean.
- e. This may cause further infection and damage.

\* These answers may be unique to each student. Teachers may also get an assortment of responses from students, based on what they have learnt from the chapter.

## MYSELF

( Answers )

1

Parts of the Body



Page  
9

2) Tick ( ✓ ) the correct answer.

- a. Good
- b. True
- c. Internal
- d. Yes

3) Fill in the blanks.

- a. Sense
- b. Internal
- c. Healthy
- d. External

## MYSELF

( Answers )

2

### Good Habits



Page  
12

- 1) Answer the following in your notebook.
  - a. Five habits:
    - i. Exercise everyday.
    - ii. Wash hands before and after every meal.
    - iii. Cut nails.
    - iv. Wear clean clothes.
    - v. Get up early and go to bed early.
    - vi. Comb hair with your own comb.
    - vii. Don't watch television for a long time.
    - viii. Eat healthy food. Eat a lot of fruits and vegetables. Eat only at fixed times.
  - b. Three habits at school:
    - i. Keep belongings carefully.
    - ii. Never throw garbage on the road.
    - iii. Do not pluck flowers and leaves from the school garden.
    - iv. Always switch off lights and fans before leaving classroom.
    - v. Always be careful while playing in the playground.
    - vi. Do not write on the benches and desks or stick bubble gum on them.

## MYSELF

( Answers )

2

### Good Habits



Page  
12

2) State whether these sentences are true or false.

- a. False
- b. True
- c. False
- d. False
- e. True

3) Do these children have good habits?  
Write yes or no.



a. Yes



b. Yes



c. No



d. No



e. Yes

## MYSELF

( Answers )

3

Grandparents

**DO** Page  
**THIS** 14 & 15

- i. Listening to stories, helping in the kitchen, doing chores in the house, etc.
- ii. Grey hair, wrinkled skin, bent posture, spectacles, loss of teeth, etc.
- iii. Picnic, Prayer, Any sports, Films, Amusement Parks, Meals, etc.



TEACH  
XENO

Page  
16

- 1) Fill in the blanks.
  - a. Love, respect
  - b. Walks
  - c. Grandparents
  - d. Stories
  - e. Grandfather

- 2) \*Speak to your grandparents and complete the following table.  
*Answer differs among students.*

\* These answers may be unique to each student. Teachers may also get an assortment of responses from students based on what they have learnt from the chapter.

## MYSELF

( Answers )

3

Grandparents



Page  
16

- 3) Answer these questions in your notebook.
- Doing household chores, helping them in shopping, helping them cross roads, etc.
  - Playing, crafts, stories, etc.
  - Watch television, read books or newspapers, etc.

\* These answers may be unique to each student. Teachers may also get an assortment of responses from students based on what they have learnt from the chapter.

# Chapter Summaries

## RECREATION AND PLAY

### 4 Fun Times

A very important part of every child's growing years, are the games they play and the sports they engage in. The chapter explores through a range of games and sports, teaching them the importance of this extra-curricular activity. It also introduces them to the concept of having a hobby.

### 5 Living and Non-living things

Children need to understand the basic difference between a living and a non-living thing, before they can understand the environment around them in greater clarity. The chapter teaches the children this basic difference in environment to help them achieve better progression.

## RECREATION AND PLAY

4

Fun Times

Answers

**DO** Page  
**THIS** 19 & 20

- i. Football, swimming, crafts, walks, etc.
- ii. Answer differs among students.
- iii. Answer differs among students.

1.
  - i) Answer differs among students.
  - ii) Football, cycling, swimming, Kabbadi, etc.
2.
  - iii) Carrom, Ludo, Scrabble.



TEACH  
XENO

Page  
22

- 1) \*Answer the following in your notebook.
  - a. Games which are played outside are called outdoor games. Games which are played inside our homes or schools are called indoor games.

- b. When we practice an activity regularly in our free time, it is called a hobby. **Hobbies differ among students.**
- c. **Answer differs among students.**

\* These answers may be unique to each student. Teachers may also get an assortment of responses from students based on what they have learnt from the chapter.

## RECREATION AND PLAY

4

Fun Times

Answers



Page  
22

2) The names of some sportspeople are given below. They have made our country proud. Find out which sport they played and write it against their name.

- a. Hockey
- b. Athletics
- c. Tennis
- d. Cricket
- e. Tennis
- f. Boxing
- g. Badminton
- h. Shooting

3) Fill in the blanks.

- A. Outdoor
- B. Hobby
- C. Outdoor game
- D. Hobby
- E. Indoor game

\* These answers may be unique to each student. Teachers may also get an assortment of responses from students based on what they have learnt from the chapter.

## LIVING AND NON-LIVING THINGS

### 5 Living and Non-Living Things

### Answers

**DO THIS** Page 25

\*Make a list of all things you see around you.

Answer differs among students



Page 27

1) Look at the images below. Circle the ones that are non-living and colour the ones that are living.

Circle- Clock, Car, Table

Colour- Parrot, Plant, Flower

2) Fill in the blanks.

- a. Non-living
- b. Living
- c. Feel
- d. Fruit
- e. Birth

\* These answers may be unique to each student. Teachers may also get an assortment of responses from students based on what they have learnt from the chapter.

## LIVING AND NON-LIVING THINGS

### 5 Living and Non-Living Things

### Answers



Page  
27

3) Answer the following questions in your notebook.

- a. Tigers, Peacocks, Shrubs, Butterflies, etc.
- b. Stone, Bridges, Houses, etc.
- c.
  - Living things breathe, non-living things do not.
  - Living things move, non-living things cannot move without an external force.

- Living things need food and water, non-living things do not.
- Living things can feel, non-living things cannot.
- Living things give birth, non-living things do not.
- Living things grow, non-living things cannot grow on their own.

\* These answers may be unique to each student. Teachers may also get an assortment of responses from students based on what they have learnt from the chapter.

# Chapter Summaries

## ANIMAL WORLD

- 6 Animals**

Earth, as we know it, would be unimaginable without animals. This chapter reinforces the concept of wild and domestic animals, while also giving the children a little more insight into the world of animals.
- 7 Pets and Farm Animals**

Animal rearing is an important part of human life. Thus, it is crucial for children to begin understanding concepts such as pets and farm animals, from a young age. The chapter teaches the children about the significance of such animals in human life and their usefulness.

# Chapter summaries

## ANIMAL WORLD

8

### Birds

Although birds are a part of the animal kingdom, there is a lot of difference in the characteristics of both. The chapter explores the world of birds and explains about their usefulness, their structure, their food habits, etc.

9

### Insects

Insects are all around us and thus, it is imperative for a child to be acquainted well with all the differences that exist in the animal world. This chapter teaches the children about insect structure and anatomy, which insects are harmful and why some insects are very important to us.

## ANIMAL WORLD

6

Animals

( Answers )

**DO** Page  
**THIS** 29 & 30

Domestic animals are those which are friendly with humans. These are usually kept as pets or farm animals.

Wild animals are those which live in the forests and do not come in much contact with humans. These animals can be dangerous.

Domestic Animals- Dog, Goat, Pig,  
Cow, Sheep

Wild Animals- Bear, Elephant, Tiger,  
Zebra, Rhinoceros

- 1) Dogs - Kennel
- 2) Birds - Nest
- 3) Lion - Den
- 4) Rabbits - Burrow

## ANIMAL WORLD

6

Animals

( Answers )



Page  
31 & 32

1) Fill in the blanks.

- a. Sounds
- b. Wild
- c. Animals
- d. Land
- e. Fish/crocodiles/snakes

2) Match the names of animals to the sounds they make by taking the help of your teacher.

- |             |        |
|-------------|--------|
| a. Bears    | Growl  |
| b. Peacocks | Scream |

- |              |         |
|--------------|---------|
| c. Tigers    | Roar    |
| d. Horses    | Neigh   |
| e. Donkeys   | Bray    |
| f. Elephants | Trumpet |
| g. Flies     | Buzz    |
| h. Monkeys   | Chatter |
| i. Parrots   | Talk    |
| j. Cows      | Moo     |

## ANIMAL WORLD

6

Animals

Answers



Page  
31 & 32

- 3) Mention if the following animals live on land, water or tree.  
For example: A zebra lives on land, an octopus lives in water and a crocodile lives both on land and water.

Lizards- Land

Frogs- Land and  
Water

Crows- Tree

Dogs- Land

Crabs- Land and  
Water

Cockroaches- Land

Monkeys- Land and  
Tree

Deer- Land

Fish- Water

Koala Bear- Tree

- 4) Answer the following questions in your notebook.
- Animals have different kinds of skin because their skin changes from place to place. This helps them adapt to their surroundings. This also gives them protection against weather and their enemies.
  - Wolves howl, dogs bark and cats mew. Dolphins speak by making a lot of noise.
  - Three animals that live underground- Rabbit, Mole, Fox.

## ANIMAL WORLD

6

Animals

( Answers )



Page  
31 & 32

- d. Some animals like zebras, live on land, while others like, koala bears and crows, live on trees. Animals like rabbits, also live under the ground. Animals like crocodiles and fish live in water.
- e. Three animals which have an outer shell- Crabs, Turtles and Tortoises  
Three animals which have horns on their body- Rhinoceros, Buffalo, Goat.

## ANIMAL WORLD

### 7 Pets and Farm Animals

### Answers

**DO** Page  
**THIS** 34 & 36

Horse, Goat, Sheep, Pig, Cow, Hen

i) Sheep ii) Hen iii) Cow



Page  
38

- 1) Answer the following in your notebook.
  - a. To provide animals with shelter, to play with them, to rescue animals in need, etc. **Answer differs among students.**

- b. The animals which give us eggs, milk, meat or help us to carry loads are called farm animals. They are also called domestic animals.
- c. We should do the following to take care of the farm animals:
  - i) Give them a comfortable and proper shelter.

## ANIMAL WORLD

### 7 Pets and Farm Animals

### ( Answers )



Page  
38

iii) Plenty of clean and fresh water should be kept for them at all times.

iv) They should be given a proper bath from time to time. The feet or hooves of cattle and horses should also be cleaned.

v) They should be taken to an veterinarian in case of any disease.

- d. Farm- Cow, Sheep, Goat, Duck, Pig, etc.  
Pets- Parrots, Rabbits, Dogs, Cats, etc.  
e. Eggs, Meat, Leather, Wool, Milk, Honey, etc.

2) Answer the following in one word.

- a. Stable  
b. Horses/Donkeys  
c. Rabbits/Turtles/Lizards/Hamsters/  
Guinea Pigs  
d. Sheep  
e. Aquarium

3) State whether the following sentences are true or false.

- a. False  
b. True  
c. False  
d. True  
e. False

## ANIMAL WORLD

### 7 Pets and Farm Animals

( Answers )



Page  
38

- 4) Fill in the blanks.
- a. 21
  - b. Feathers
  - c. Horses
  - d. Cages
  - e. Feet or hooves
  - f. Grammy
  - g. Fish
  - h. Domestic animals

## ANIMAL WORLD

8

Birds

( Answers )

**DO THIS** Page  
**40 & 41**

- i) Beak, Wings, Feathers, Claws, Head, Body.
- ii) Bat, Squirrel, Frog, Gecko, etc.



Page  
**44 & 45**

- 1) Answer these questions in your notebook.
  - a. Birds make nests to keep their eggs and young ones safe. Nests are birds' home.
  - b. Bird feathers are of two types: flight feather and down feathers.

Flight feathers are long feathers on the wings and tails. These help the birds in flying and changing directions while flying.

Down feathers cover the body of a bird. These are light and soft. Down feathers help the birds in keeping their bodies warm.

## ANIMAL WORLD

8

Birds

( Answers )



Page  
44 & 45

- c. Birds which are unable to fly are called flightless birds. Emus, Penguins, Ostriches, etc. are examples of flightless birds.
- d. Birds eat different types of food such as, fruits, fish, worms and insects, nuts and seeds, chillies, meat, etc.

### 2) Fill in the blanks.

- Flight feathers
- Flightless birds
- Cuckoo
- Hollow
- Flight, Down

### 3) Complete the following table.

Name of the bird	What it eats	Where it makes its nest
Hens	Grass, Vegetables, Seeds, Worms	Land, Tall Grass
Penguins	Krill, Fish	Ice
Eagles	Fish, Rat, Dead Animals	Trees, Cliffs

## ANIMAL WORLD

8

Birds

( Answers )



Page  
44 & 45

4) Match the birds with their sounds.

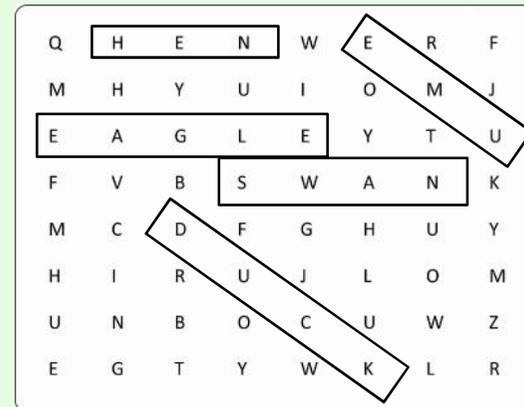
Duck Quack

Crow Caw

Pigeon Coo

Canary Tweet

5) Find the names of different birds in the grid below. There are five names.



6) State whether the following sentences are true or false.

- True
- False
- False
- False

## ANIMAL WORLD

9

Insects

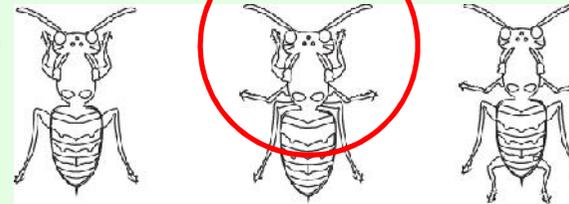
( Answers )

**DO THIS** Page 47, 49 & 50

Ladybird, Grasshopper,  
Cockroach, Mosquito, Ant  
**Crawl:** Ant, Cockroach, Flea, Tick,  
Silverfish, Etc.  
**Fly:** Bumblebee, Butterfly, Mosquito,  
Bee, etc.

i) \*Answer differs among students

ii)



Page 51 & 52

1) Fill the table below according to the instructions given.

Harmful Insects- Mosquito, Cockroach, Fly  
Useful Insects- Butterfly, Silkworm,

Honey bee

2) Fill in the blanks.

- |                    |              |
|--------------------|--------------|
| a. Six             | d. Ladybirds |
| b. Useful, Harmful | e. Ointment  |
| c. Ants            |              |

\* These answers may be unique to each student. Teachers may also get an assortment of responses from students based on what they have learnt from the chapter.

## ANIMAL WORLD

9

Insects

( Answers )



Page  
51 & 52

3) Match the following. Take the help of your teacher.

- a. Gives silk cloth
- b. Eating pests
- c. Makes honey
- d. Pollination

4) Look at the images given below. Circle the ones that are insects. Write down the reason for your choice in your notebook.

Circle- Butterfly, Honey bee, Ant, Earthworm

5) Answer the following questions in your notebook.

- a. The body of an insect is divided into three parts- head, thorax and abdomen. Their wings and legs are located on the thorax. They also have feelers on their head. Insects which can fly have wings on their back. Some insects also have stingers at the end of their bodies. All insects have 6 legs.

## ANIMAL WORLD

9

Insects

( Answers )



Page  
51 & 52

b. Some insects are useful to us. Honey bees make honey from the nectar of flowers. We use honey in our daily life. A silkworm makes silk, which is used by us to make clothes. Butterflies too, help in production of new plants through pollination, which is very good for the environment.

c. We can protect ourselves from harmful insects by:

- Putting a wire-mesh on the windows and sleeping inside a mosquito net.
- Covering food items.

- Not playing near areas which have dirty or stagnant water.
- Keeping surroundings clean.

d. Praying Mantis, Ladybird, Caterpillars, Ants, Grasshoppers, Mosquitoes, etc.

6) State whether the following sentences are true or false.

- True
- False
- False
- True
- True
- False

# Chapter Summaries

## WORLD OF PLANTS

10

### Plants

Plants are another important component of our environment. Thus, teaching children about them is as important as teaching them about animals. This chapter discusses, in detail, the types and kinds of plants that exist around us, areas that they are found in, etc.

11

### Leaves

Leaves are the kitchen of the plant and this makes it important for a child to also understand the structure of a leaf and the various uses of leaves in our lives. The chapter explores these very points in order to bring greater clarity in the minds of the children.

## WORLD OF PLANTS

10

Plants

Answers

**DO** Page  
**THIS 55, 56, 58 & 59**

- i) Circle: Rabbit, Horse, Tree, Sheep  
Square: Cycle, Cup

Place	Living Things	Non-Living Things
Inside Your house	People, Pets, Flies	Fan, Radio, Television
Near Your School	Bushes, Dogs, Birds	Table, Chair, Blackboard
On the beach	Fish, Crabs, Snails	Towels, Frisbee, Rocks
In the park	Butterfly, Insects, Trees	Benches, Dustbin, Ball

- i) Plants need water to prepare their food. If the plants do not get water, they will not be able to prepare food and hence, slowly dry up and die.
- ii) Trees, herbs, shrubs, climbers, creepers, etc. **\*Names of plants are also acceptable.**
- i) Mango tree, Banyan tree, Neem tree, coconut tree, etc
- ii) Rose, Hibiscus, Golden Dewdrop, Orange Jasmine, Bougainvillea, Mulberry, Barberry, etc.

\* These answers may be unique to each student. Teachers may also get an assortment of responses from students based on what they have learnt from the chapter.

## WORLD OF PLANTS

10

Plants

Answers

**DO** Page  
**THIS** 55, 56, 58 & 59

Medicinal uses, Edible uses, Environmental uses, Ornamental uses, etc. *Specific uses are also acceptable.*



Page  
**60 & 61**

- 1) Answer the following questions in your notebook.
- a. Plants are very useful to us. Tall trees with wide branches provide shade. They are also home to many animals. Plants make our surrounding beautiful and also clean the air by taking in the carbon dioxide given out by us.

- b. Herbs are plants that are short and have green stems. Trees are plants that grow very tall and have a thick wooden trunk. Shrubs are bushy and short. They have thin and hard stems.
- c. Although both are living things, plants cannot move around like animals do. Plants cannot speak or

\* These answers may be unique to each student. Teachers may also get an assortment of responses from students based on what they have learnt from the chapter.

## WORLD OF PLANTS

10

Plants

Answers



TEACH  
XENO

Page  
60 & 61

see like animals do. Plants also prepare their own food, while animals depend on plants and other animals for food.

- d. a) Date palms and cactus are the kind of trees that can be found in the Thar desert.  
b) Tall trees like fir and pine can be found in the cold, mountain regions of Jammu and Kashmir.  
e. Plants make their own food with the help of a green pigment called Chlorophyll.

2) The table below has a list of things that we get from plants. Taking the help of your teacher, write the name of the plants from which you get these things and state what they are used for.

Things we eat	Name of the Plant	Uses
Pulses and Grains	Wheat, Rice, Maize, etc.	Food
Flowers	Rose, Jasmine, Marigold , etc.	Decoration
Seeds	Groundnuts, sesame, Mustard, etc.	Food

\* These answers may be unique to each student. Teachers may also get an assortment of responses from students based on what they have learnt from the chapter.

## WORLD OF PLANTS

10

Plants

Answers



Page  
60 & 61

Fruits and Vegetables	Apple, Banana, Kiwi, etc.	Food
Spices	Clove, Tamarind, Cardamom, etc.	Flavouring for food

3) Fill in the blanks.

- i) Mangroves
- ii) Living
- iii) Land and Water
- iv) Chlorophyll
- v) Carnivorous

4) Write down the name of the category in which the following group of plants belong.

- i) Carnivorous Plants
- ii) Herbs
- iii) Shrubs
- iv) Creepers
- v) Water Plants
- vi) Trees

\* These answers may be unique to each student. Teachers may also get an assortment of responses from students based on what they have learnt from the chapter.

## WORLD OF PLANTS

11

Leaves

( Answers )

**DO** Page  
**THIS** 63 & 64

Mango leaf, Banana leaf, Neem leaf, Mint leaf, Coriander leaf, etc.

- i) Peepal tree, Banyan tree, Mango tree, etc.
- ii) Lines will appear over the sheet of paper, these are the veins of the leaf.



Page  
66

1) Match the following.

Tea leaves



Mango leaves



Coconut leaves



\* These answers may be unique to each student. Teachers may also get an assortment of responses from students based on what they have learnt from the chapter.

## WORLD OF PLANTS

11

Leaves

( Answers )



Page  
66

Henna leaves



2

Mint leaves



3

2) Answer the following questions in your notebook.

a.

- Tea leaves are dried and then used to make tea.

- Leaves of mint and coriander are used to add flavour to our food.
- Dried coconut leaves are used to make thatched roofs.
- Tulsi and neem leaves are used in medicines.
- Cabbage, spinach and lettuce are used to make different kinds of food items.
- Banana leaves are used as plates to eat food.

\* These answers may be unique to each student. Teachers may also get an assortment of responses from students based on what they have learnt from the chapter.

## WORLD OF PLANTS

11

Leaves

Answers



Page  
66

- Leaves of henna are crushed, made into a paste and then applied on hands of women and girls during festivals and functions.
- b. Leaves use air, water, sunlight and chlorophyll for the process of making food. This process is called Photosynthesis. Leaves are called the 'kitchen of the plant' because they make the food for the plants.
- c. Most leaves are green in colour due to the presence of a green colour pigment called Chlorophyll.
- d. Lines which can be seen on the leaves are called veins. The line in the centre of the leaf, which is thicker than all other lines, is called the midrib of the leaf. Stripes are patterns that can be seen on the leaves. These are not present on all leaves.
- e. Some strong smelling leaves are: Mint, Curry, Tulsi, Bay leaves or Tejpatta and Henna.  
Mint, Curry, Bay leaves are used in food items. Tulsi is used for medicinal purposes. Leaves of Henna are crushed to apply on hands of women and girls, during festivals and functions.

\* These answers may be unique to each student. Teachers may also get an assortment of responses from students based on what they have learnt from the chapter.

## WORLD OF PLANTS

11

Leaves

( Answers )



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66

3) Fill in the blanks.

- a. Midrib
- b. Banana
- c. Coconut
- d. Green
- e. Photosynthesis

\* These answers may be unique to each student. Teachers may also get an assortment of responses from students based on what they have learnt from the chapter.

# Chapter Summaries

## FOOD AND WATER

### 12 Food We Eat

Health and nutrition are important topics which a child needs to be made aware of, from a very early age. The chapter delves into the importance of healthy eating and the various kinds of food preparations that are possible.

### 13 Water For Our Life

This chapter explains very important topics such as how we acquire drinking water, how much water is available on Earth for drinking, etc. The chapter also touches upon significant subjects such as rainwater harvesting and water conservation.

## FOOD AND WATER

12

Food We Eat

( Answers )



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- 1) \*Answer the following questions in your notebook.
  - a. There are many ways of cooking food. Some foods can be cooked by steaming, while others have to be fried in hot oil. Food can also be baked, roasted or boiled.
  - b. Answer differs among students.
  - c. Pressure Cooker, Kadhai, Frying Pan, Spatula, Tava, etc.
  - d. Food is important because, without it, we will have no energy in our body

- and thus, will not be able to do our daily work.
- 2) Give two examples each for the following.
  - a. Cakes, Pastries, Brownies, Pies, Vegetables, etc.
  - b. LPG, Kerosene, Dried wood, Coal, etc.
  - c. Fruits, Carrot, Beetroot, Tomato, etc.
  - d. Idli Vada, Sambhar Rice, Curd Rice, Masal Dosa, etc.
  - e. Mishti Doi, Fish Curry, Sondesh, etc.
  - f. Daal Baati Churma, Kadhi, Gatte ki Sabzi, etc.

\* These answers may be unique to each student. Teachers may also get an assortment of responses from students based on what they have learnt from the chapter.

## FOOD AND WATER

12

Food We Eat

( Answers )



Page  
71

- 3) Fill in the blanks.
- a. Dried wood, cow dung cakes
  - b. Food
  - c. Raw
  - d. Utensil
  - e. Vegetables

## FOOD AND WATER

### 13 Water for our Life

### Answers

**DO THIS** Page  
**74**

Canister, Earthen Pot, Drums, Water Tanks, Bottles, Sump

 **Page**  
**76 & 77**

1) Answer the following questions in your notebook.

- a. Watching television, doing homework, sleeping, playing, etc.
- b. We cannot use sea water as the water present in sea is salty.
- c. We can do the following things to conserve water:

- Turn off the tap while applying soap on our face and while brushing our teeth.
- Use a bucket while bathing instead of a shower.
- Not use a hose pipe to clean cars or for washing driveways and corridors.
- Water the plants in the garden, early in the morning or evening.

\* These answers may be unique to each student. Teachers may also get an assortment of responses from students based on what they have learnt from the chapter.

## FOOD AND WATER

### 13 Water for our Life

( Answers )



Page  
76 & 77

- Use the water leftover in our bottles to water plants.
- d. Scarcity of water for drinking and other purpose is known as water shortage.
- e. The method of collecting water by keeping buckets or drums on the terrace or an open space during rains, is called rainwater harvesting.

2) Fill in the blanks using the words given below.

- a. Lemonade
- b. Thirsty
- c. Salty
- d. Harvesting
- e. Shortage

3) Fill in the blanks.

- a. False
- b. False
- c. True
- d. False
- e. True

\* These answers may be unique to each student. Teachers may also get an assortment of responses from students based on what they have learnt from the chapter.

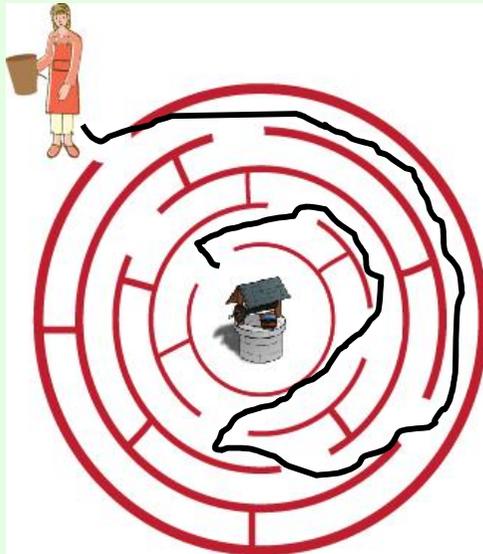
## FOOD AND WATER

### 13 Water for our Life

(Answers)



Page  
76 & 77



H	Q	Y	T	K	L	S
A	U	J	K	C	N	C
R	O	I	A	O	R	A
V	R	A	I	N	O	R
E	W	T	A	S	U	C
S	A	G	S	E	I	I
T	I	H	E	R	E	T
I	U	U	R	V	R	Y
N	S	I	T	E	J	H
G	B	S	A	L	T	Y

\* These answers may be unique to each student. Teachers may also get an assortment of responses from students based on what they have learnt from the chapter.

# Chapter Summaries

## CLOTHES AND SHELTER

### 14 Clothes we wear

This chapter explains to the children, the evolution of clothing, the need and importance of clothes and the various kinds of attires we see across the country.

### 15 Our House

The first place that a child learns to feel safe in, is a home. The chapter elaborates upon this concept and covers topics such as the various kinds of houses, the need to and importance of keep houses clean, etc.

## CLOTHES AND SHELTER

14

Clothes we wear

(Answers)

**DO THIS** Page 81

- i) \*Answer differs among students.
- ii) Yes, there is a difference, They wear Indian clothes, while children wear more modern clothes. Grandparents' clothes are also loose and comfortable.



Page 84

- 1) Answer the following questions in your notebook.
  - a. We wear clothes for protection from heat, rain and cold. Clothes are a basic requirement.
  - b. People used animal skin, the bark of trees and leaves to cover their bodies, when there was no machinery.
  - c. Cotton, Silk, Wool.
  - d. No, people wear different clothes in different places. People follow different traditions in different places.

\* These answers may be unique to each student. Teachers may also get an assortment of responses from students based on what they have learnt from the chapter.

## CLOTHES AND SHELTER

14

Clothes we wear

( Answers )



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Hence, the clothes they wear also change. Clothes also change depending upon the climatic conditions of the places.

2) Match the items of clothing with the season they are worn in.



Winter



Summer



Monsoon/Rainy



Winter



Summer

\* These answers may be unique to each student. Teachers may also get an assortment of responses from students based on what they have learnt from the chapter.

## CLOTHES AND SHELTER

15

Our House

Answers

**DO  
THIS**      **Page  
86**

Colour - Television and Sofa.



**Page  
91**

- 1) Answer the following questions in your notebook.
  - a. Brooms, Mops, Buckets, Kitchen Cloths, Dusters, Brushes, Vacuum Cleaners, Hose Pipes, etc.
  - b. It is important to keep our house clean as we cannot live inside a

- c. A house is required because it gives us shelter from animals, weather and other dangers.
- d. Houses are decorated during festivals or functions. Paint, streamers, balloons, candles, earthen

\* These answers may be unique to each student. Teachers may also get an assortment of responses from students based on what they have learnt from the chapter.

## CLOTHES AND SHELTER

15

Our House

Answers



Page  
91 & 92

lamps, colour powder, etc. could be the things used to decorate the house.

2) Give two examples of each.

- a. Vegetable peels, Spoilt/Leftover food
- b. Newspaper, Bottles
- c. Glass, Plastic
- d. Paper bags, Jute bags

3) Fill in the blanks.

- |               |                  |
|---------------|------------------|
| a. Apartments | d. Shelter       |
| b. Tent       | e. Cement, Steel |
| c. Mosquitoes | f. Igloo         |

4) Name the following.

- a. Houseboat
- b. Kutcha House
- c. Caravan
- d. Tent
- e. Bungalow

5) Clean their rooms, pick up waste papers, always use a dustbin, help in household chores, etc., could be the answers.

6) Snowman, Light bulbs, Christmas tree, Christmas ornaments, Streamers, etc.

\* These answers may be unique to each student. Teachers may also get an assortment of responses from students based on what they have learnt from the chapter.

# Chapter Summaries

## OUR ENVIRONMENT

### 16 Earth and Solar System

This chapter explains to the students about the various components of our Solar System. It also explains why Sun is a very important heavenly body, what are the uses of sunlight and introduces the children to new terms.

### 17 Nature's Gift

The chapter elaborates upon the importance of preserving the nature's gifts and valuing the natural resources we receive from nature. It also discusses steps that can be taken to help keep the planet clean and conserve natural resources.

## OUR ENVIRONMENT

( Answers )

### 16 Earth and the Solar System

**DO THIS**      **Page**  
**96 & 97**

Mercury	Grey
Venus	Orange-Yellow
Earth	Blue-Green
Mars	Red
Jupiter	Grey, Orange, Brown
Saturn	Brown, Yellow, Red, White
Uranus	Light blue, green
Neptune	Dark Blue

Mercury

- i) Mercury is the smallest planet in our Solar System.
- ii) It is the closest planet to the Sun.

- iii) Mercury has no moons and there are no rings around mercury.

Venus

- i) Venus spins backwards, which means, in Venus, the Sun rises in the West and sets in the East.
- ii) One day is longer than one year on Venus.
- iii) Venus is the second closest planet to the Sun.

Earth

- i) Earth has one moon.
- ii) Earth is the third planet from the Sun.

## OUR ENVIRONMENT

( Answers )

### 16 Earth and the Solar System

**DO THIS**      **Page 96 & 97**

- iii) Earth's atmosphere protects us from dangers of the outer space.

Mars

- i) Mars is the fourth planet from the Sun.
- ii) Mars has two moons but no rings.
- iii) Mars is known as the 'Red Planet' due to its colour.

Jupiter

- i) Jupiter is a gas-giant and thus, does not have a solid surface.
- ii) The 'Great Red Spot' is a huge storm on this planet.

- iii) Jupiter is the fifth planet from the Sun and has faint rings. It has 50 known moons.

Saturn

- i) Saturn is the sixth planet from the Sun.
- ii) It makes a complete orbit around the Sun in 29 Earth years.
- iii) Saturn is a gas-giant and has 53 known moons and is made up of 7 rings.

Uranus

- i) Uranus is an ice-giant and more than 80 percent of the planet is made up of icy materials.
- ii) Uranus has 27 moons and faint rings.

## OUR ENVIRONMENT

( Answers )

### 16 Earth and the Solar System

**DO THIS** Page  
**96, 97 & 99**

iii) Uranus spins backwards too and also, spins horizontally.

Neptune

- i) Neptune is an ice-giant too.
- ii) It has 13 confirmed moons.
- iii) Neptune has 6 rings.

b) The water in the black can is warmer as the colour black absorbs heat very quickly and thus, the black can has captured more heat than the other can of water.  
Rain, lightning, sunny, cloudy, windy, snow, etc. could be some of the other symbols.



Page  
**100**

- 1) Fill in the blanks.
- a. cool
  - b. Sun

- c. winter
- d. orbit
- e. vacation
- f. blue

## OUR ENVIRONMENT

Answers

### 16 Earth and the Solar System



Page  
100 & 101

2) Match the following.



Winter



Satellite



Sun



Monsoon

- 3) Answer these questions in your notebook.
- Young plants bloom in spring. Leaves which had shed in winter appear again. Trees and flowers blossom in spring. During autumn, plants start preparing for winter by storing food ,etc.
  - The eight planets are- Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, and Neptune. Mercury is the closest to the Sun.

## OUR ENVIRONMENT

( Answers )

### 16 Earth and the Solar System



Page  
**100 & 101**

- c. A satellite is a body in space which is always moving around the planets. They get heat and light from the Sun.
- d. We should not litter and leave empty packets or bottles behind. We must always use dustbins and make sure we do not dirty the place.
- e. The axis is an imaginary line on which the Earth spins like a top.
- f. An orbit is the path on which the planets move around the Sun and satellites move around the planets.

- 5) Fill in the colours of the rainbow correctly. Then name all the colours in the rainbow.

Red  
Orange  
Yellow  
Green  
Blue  
Indigo  
Violet

## OUR ENVIRONMENT

( Answers )

### 17 Nature's Gifts

**DO  
THIS**      **Page  
106**

I will not litter, I will recycle, I will save electricity, etc. could be some of the answers.



**Page  
107 & 108**

1. Answer the following questions in your notebook.
  - a. Water gets polluted when water bodies are contaminated with waste and garbage. Water gets polluted by:
    - throwing household water into rivers

- using area around lakes and rivers as toilets
- bathing animals in the water bodies
- washing clothes and bathing in the water bodies
- factories releasing waste into the water bodies

## OUR ENVIRONMENT

( Answers )



TEACH  
XENO

Page  
107 & 108

### 17 Nature's Gifts

- b. Noise pollution is the disturbance or damage caused due to too much noise and sound.
- c. Air pollution is caused by burning garbage in open spaces, due to smoke from vehicles and generators, smoke given out by chimneys of factories, etc.
- d. We need to protect the gifts of nature because life without them will be impossible for us. We need them for our survival and well-being. Thus, they should be protected and conserved.
- e. No it is wrong to throw stones at animals or pluck flowers as these damage the environment and cause harm. By doing this we will be harming our own environment.
- f. We should take care of living things by doing the following:
- Animals:
- Not throwing stones at animals on the street and not teasing them.
  - Treating animals with kindness.
  - Brushing pets gently to remove any dust, bathing and giving food to them regularly.

## OUR ENVIRONMENT

( Answers )



Page  
107 & 108

### 17 Nature's Gifts

- Not disturbing wild animals when we go to zoos or national parks and promoting creation of sanctuaries for wild animals.

For Plants:

- Protecting them from animals.
- Not breaking branches of trees or bushes.
- Watering the plants at home regularly.
- Not stepping on flower beds.
- Not plucking leaves or flowers.

2. State whether the following sentences are true or false.

- |          |          |
|----------|----------|
| a. False | e. True  |
| b. True  | f. False |
| c. False | g. False |
| d. True  | h. True  |

3) Make a list of 5 ways in which you have seen someone pollute nature.

Washing clothes in streams, factories polluting air through smoke, loudspeakers during functions, horns, animal bathing in lakes, etc. could be some of the answers.

## OUR ENVIRONMENT

( Answers )

### 17 Nature's Gifts



Page  
107 & 108

- 4) Fill in the blanks.
- a. Resources
  - b. Air Pollution
  - c. Pluck
  - d. Noise Pollution
  - e. Firecrackers
  - f. Water Pollution

# Chapter Summaries

## COMMUNICATION AND SAFETY

### 18 Communication

The chapter details the meaning and need for communication and explains how communication has been responsible for advancements in the world. It also explains the various means of communication.

### 19 Safety Rules

Safety is another important aspect that needs to be taught and built into the children's minds from a young age. The chapter discusses various safety measures that need to be followed at various locations and helps impress upon the children's minds, the importance of being safe.

## COMMUNICATION AND SAFETY

( Answers )

18

Communication

**DO  
THIS**

**Page  
111**

Letter, Pigeon Post, Telephone, E-mail, Mobile, Sign Language



TEACH  
XENO

**Page  
115**

1. Arrange the sentences given below in the correct order.
  - Write a letter.
  - Put the letter in an envelope.
  - Paste a stamp on the envelope.
  - Put the envelope in the letter box.

- The envelope goes to the sorting department of the post office.
- The postman delivers the letter.
2. Correct and rewrite the sentences in your notebook.
  - a. Drums were used for communication over long distances.

\* These answers may be unique to each student. Teachers may also get an assortment of responses from students based on what they have learnt from the chapter.

## COMMUNICATION AND SAFETY

(Answers)

18

Communication



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- b. Sign language is used by people who are unable to speak or hear.
  - c. Morse Code was invented by Samuel Morse.
  - d. Pigeons were used to carry messages in the olden days.
  - e. Mudras are used by dancers in their daily life.
3. Answer the following questions in your notebook.
- a. Communication means exchange of information, thoughts and messages between people.
  - b. Pigeons were used to send and receive messages in the olden times because of their ability to travel long distances without losing their way.
  - c. The Morse Code is a system of sending and receiving messages using dashes, dots and spaces. These denote the letters of the alphabet.

\* These answers may be unique to each student. Teachers may also get an assortment of responses from students based on what they have learnt from the chapter.

COMMUNICATION  
AND SAFETY

( Answers )

18

Communication

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115

- d. Dancers use mudras most often to show different scenes such as clouds, thunder, bees sitting on a flower, etc.
  
- e. A PIN code helps in identifying the area to which the letter has to be sent, in case the address is mentioned incorrectly.

\* These answers may be unique to each student. Teachers may also get an assortment of responses from students based on what they have learnt from the chapter.

## COMMUNICATION AND SAFETY

(Answers)

19

### Safety Rules



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118

1. Answer the following questions in your notebook.
  - a. Two safety rules at home:
    - Do not play with electrical gadgets.
    - Never play with sharp objects like scissors, knives, etc.
 At school:
    - Do not jump over benches.
    - Do not push others.
  - b. We should look to our left, right and then left again before crossing roads.

- c. Safety rules are important because they keep us safe and help us in keeping others safe as well.
  - d. If we do not follow safety rules we may harm ourselves or others. Accidents can occur if we do not follow safety rules.
2. Look at the images below and answer whether the people in the picture are right or wrong.



Wrong



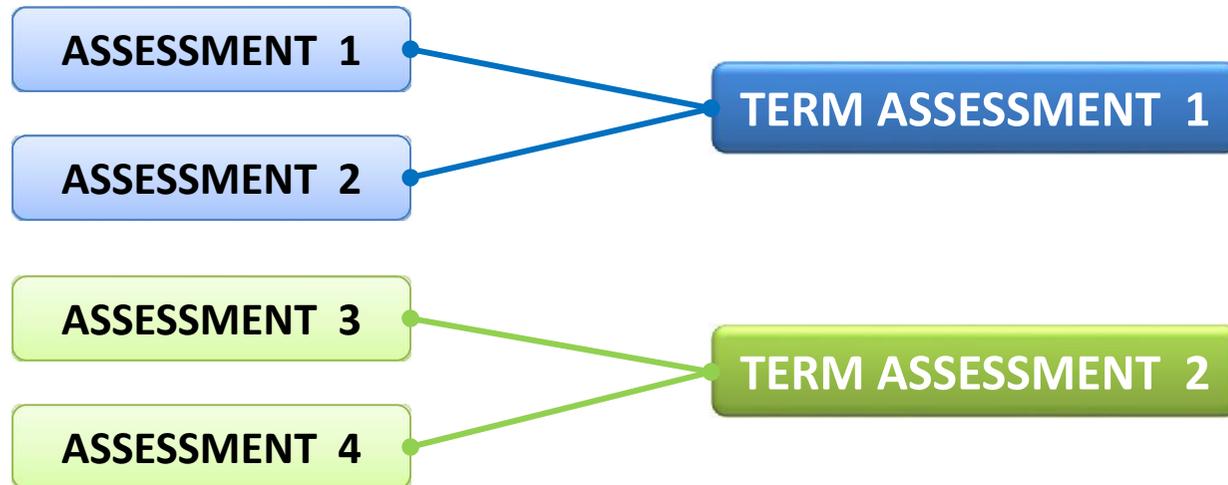
Right

\* These answers may be unique to each student. Teachers may also get an assortment of responses from students based on what they have learnt from the chapter.



# Evaluation

The evaluation sheets are divided into four assessment papers and two term papers, to be given during the academic year.



*These assessment sheets can be accessed on the 'Downloads' link on the Greycaps website [[www.greycaps.com](http://www.greycaps.com)]*

### 'DOWNLOADS' Link

This link provides access to assessment sheets and this teacher manual, to all teachers subscribed to Earth Quest.



Each assessment sheet is downloadable in a PDF format and is accompanied with the answer keys.

Each PDF file is password protected for the teachers' benefit.  
The password is 'teacher'.

# Evaluation

The Units covered for each assessment sheet is as follows :-

ASSESSMENT 1	Myself   Recreation and Play	TERM ASSESSMENT 1
ASSESSMENT 2	Living and non-living things   Animal world	
ASSESSMENT 3	World of plants   Food and water	TERM ASSESSMENT 2
ASSESSMENT 4	Clothes and shelter   Our environment   Communication and safety	

## Benefits

- Easy to recall, longer retention
- Fun, team based and experiential
- Makes the child THINK & QUESTION (No Rote)
- Reduce the gap between the first child and last child (i.e, Honeycomb Philosophy)



We thank you for being a teacher.



Greycaps India Pvt. Ltd. | No 86, First Cross, Vysya Bank Colony,  
BTM 2<sup>nd</sup> Stage, Bangalore - 560076  
Phone: +91-80 41202438 | [www.greycaps.com](http://www.greycaps.com) | [xeno@greycaps.com](mailto:xeno@greycaps.com)