Wizz World of SCIENCE

GRADE 1



Aligned with Single National Curriculum

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PREFACE

Wizz World of Science for grades I to 7 has been conceptualized, penned, composed and designed by professionals and educators who have vast experience of dealing with subject of science in the past. Our books lie well within the frameworks defined by National Curriculum. The newly introduced National Assessment Framework (NAF), that is now an integral part of National Curriculum Framework (NCF) has been particularly incorporated in Wizz World of Science Series to make sure that basic purpose of this initiative regarding policy and practice level to improve quality of education is actually met. The quality of education has been further made sure with holistic and cognitive approach that identifies specific areas of learning and development that a today's student requires. The series:

- Guides students in a very simple way how to solve the cognitive tasks by creating a comfortable zone.
- Encourages students to practice and apply concepts.
- Involves students in interactive exercise and activities.
- Help students to create a natural space for thinking through well-planned activities.

WHY WIZZ PUBLISHERS?

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- Backed by practical experience and critical analysis for over 30 years.
- Developed, designed and printed with the latest and modern techniques.
- Available at economical prices keeping in view the recent economic melt down domestically.
- Based on well-planned activities and systematically developed exercises.
- Helpful for students to develop the 21st century life skills for a bright future.

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Wizz World of SCIENCE

GRADE 1

CONTENTS



Unit 1
My Body and Senses 3

Unit 2
Health and Hygiene 13





Unit 3
Living and Non- Living Things 26

Unit 4
Plants and their Importance 33





Unit 5
Animals and their Homes 43

Unit 6
Forces in Action 55



Unit 7
Our Solar System 64



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UNIT 1

My Body and Senses

Students' Learning Outcomes

All students will be able to:

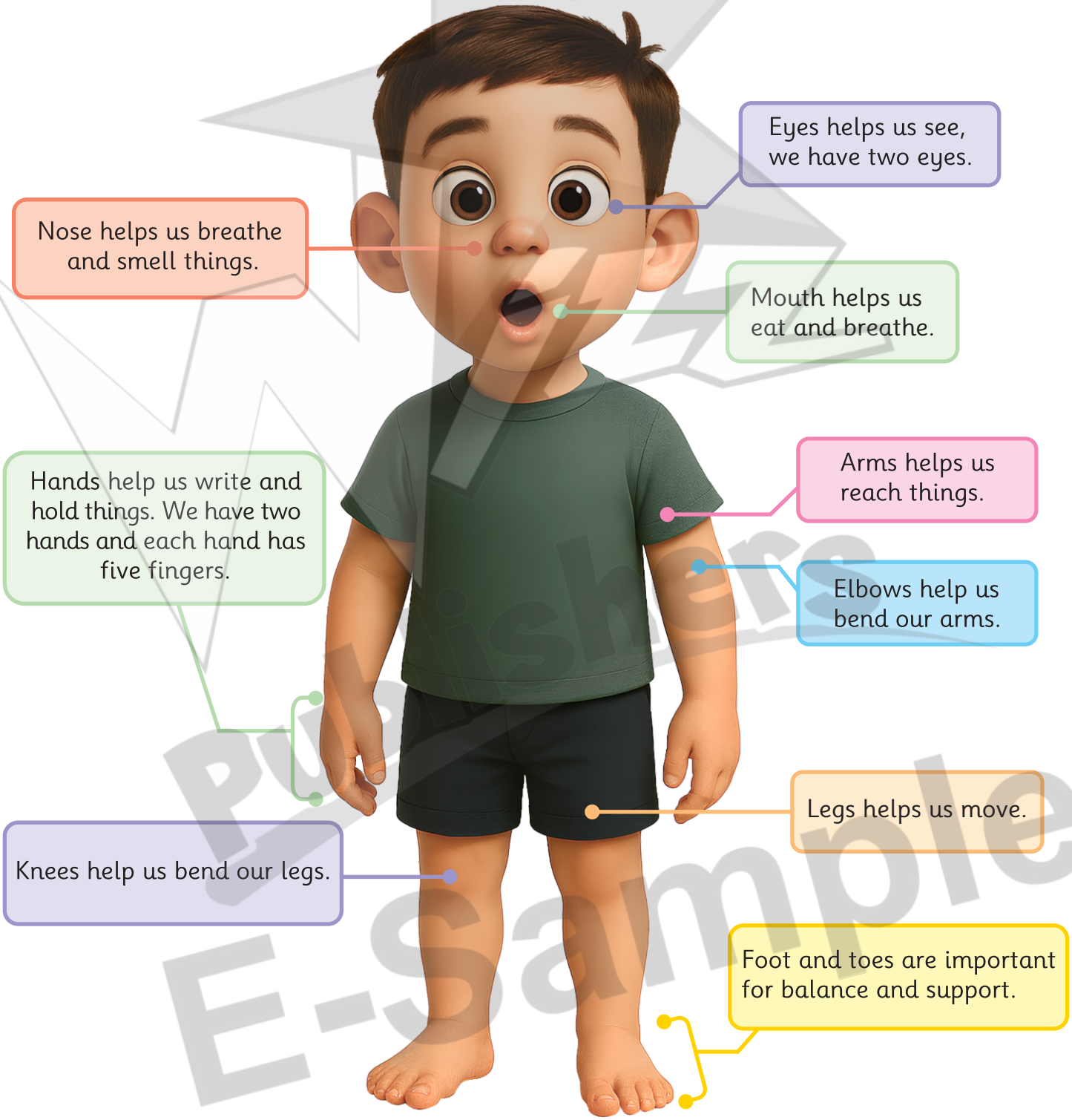
- Name and identify major parts of the human body.
- Identify the functions of the various body parts.
- Name the five senses.
- Relate their body parts with the five senses.
- Match the sensory description of each of the five senses.
- Recognise that some people don't have all the body parts and senses, and they are also valuable members of the society.



We all are different people, but we all have some common body parts which make us similar.

Body parts and their Functions

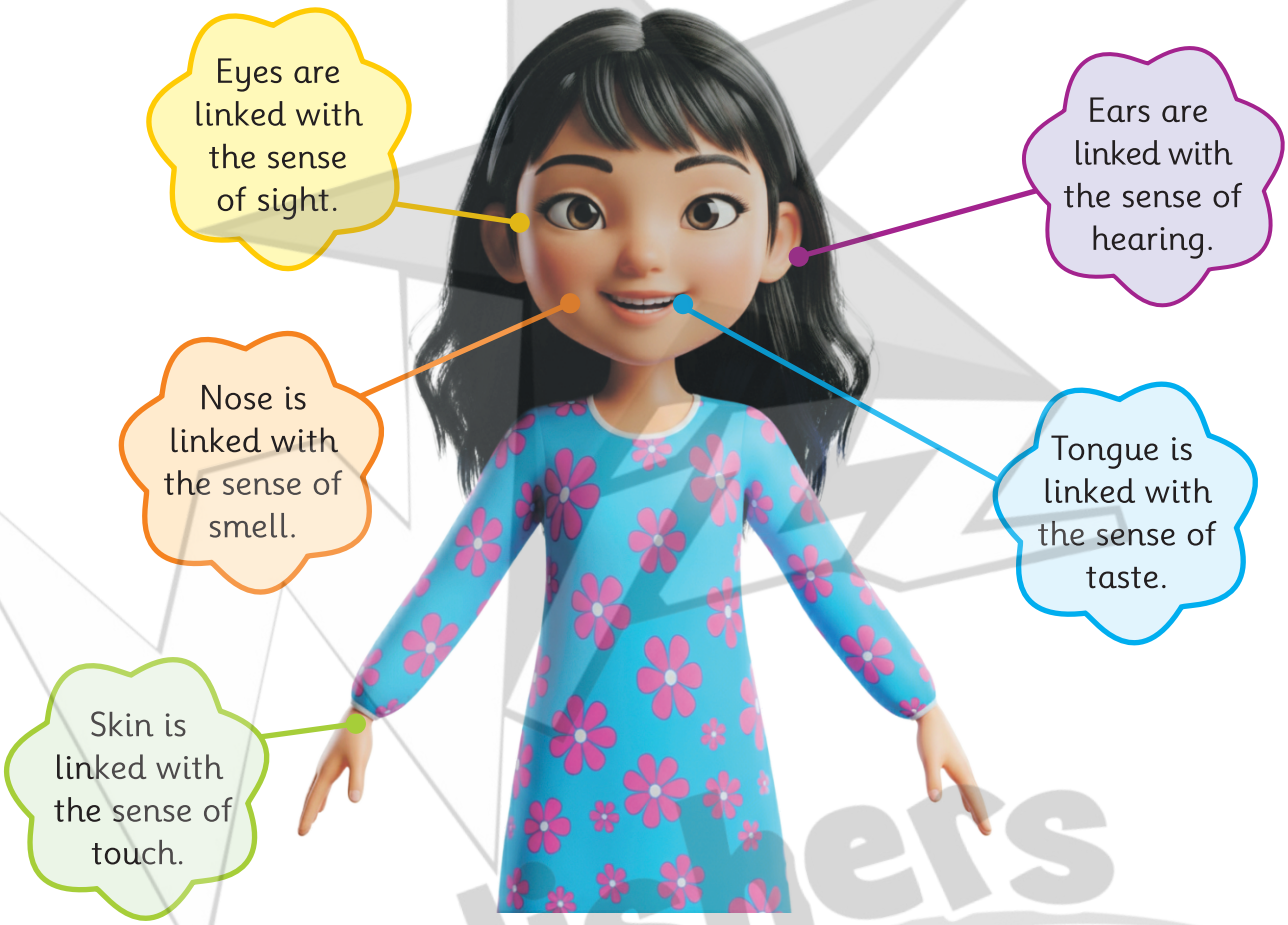
Some important body parts along with their functions are given below. Each body part performs a specific function.



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Sense Organs and Senses

The information we get from our sense organs helps us move around in the world. These five sense organs are associated with five senses.



Look at the following pictures and write which part of the body is used and for what purpose?



_____ _____ _____ _____ _____

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Our Eyes

We see with our eyes. Our eyes help us learn how things look. We can see the colourful world around us. We can read books and play video games. Our eyes can also distinguish between different colours.





Our Ears

Our ears help us hear different sounds. Sense of hearing tells us if a sound is loud or soft, pleasant or unpleasant.

Our Nose

We smell with our nose. Our nose helps us learn how things smell.

How do you think the flowers smell?





Our nose helps us identify different smells. Some things smell good (pleasant), while others smell bad (unpleasant).

Publishers Example

Our Tongue

We taste with our tongue. It helps us taste the flavour of different foods. Our tongue can identify a variety of tastes such as sour, sweet, salty and bitter.


Sour


Sweet


Salty


Bitter

Our Skin

We touch things with our skin. Our sense of touch tells us if something is hot or cold, smooth or rough. It also tells us when we feel pain.


Rough


Pain

We Are All Special

Did you know that not everyone has the same body parts or senses?


Deaf


Blind

Some people are born without a hand or a leg, and they are physically disabled. Some people cannot see, and they are blind, while some people cannot hear, and they are deaf. But they are also valuable members of the society, and we should treat them equally.


Physical disability



Activity

Set out a variety of food to taste, e.g. slices of oranges, lemons, some salt and sweets. Ask students to taste each food and tell if it is sour, sweet, bitter or salty.

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Check Point

1 Choose and write the correct option.

i. Which part of your body helps you to see things?

a. Nose
b. Eye
c. Mouth
d. Ear

ii. What do we use our ears for?

a. Hearing
b. Smelling
c. Tasting
d. Running

iii. Which body part helps you to smell a flower?

a. Nose
b. Hand
c. Leg
d. Mouth

iv. Which body part helps you to walk and run?

a. Arm
b. Leg
c. Mouth
d. Ear

2 Fill in the blanks.

i. _____ can be pleasant or unpleasant.

ii. _____ help us to feel.

iii. We can taste with our _____.

iv. Some people cannot see they are called _____.

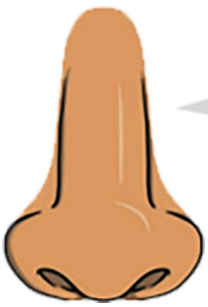
v. Some people cannot hear, they are called _____.

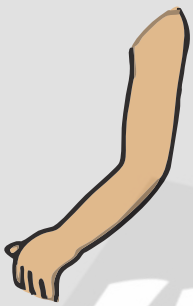
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3 Write down the name of each body part under the correct image using the word bank.

WORD BANK

arm	foot	nose	ear
leg	eye	hand	mouth











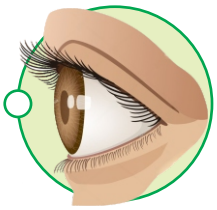






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4 Match the following senses with the correct parts of the body.

Sight	Tongue 
Hearing	Nose 
Smell	Eye 
Taste	Hand 
Touch	Ear 

5 Match each body part with its correct definition.

Eyes	you have two of these at the bottom of your arms.
Nose	you use this part of your body to see.
Mouth	you use this part of your body to smell.
Legs	you have two of these. You use them to walk.
Hands	you use this part of your body to eat.

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6 Draw a picture in each box to show a specific thing you can explore with your five senses during a visit to the school garden.

I see :



I hear:



I taste:



I smell:



I touch:



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Let's Do It

Objective: Students will use touch and sight to identify and record the texture (rough or smooth) of two different tree barks.

What you need:

- A4 paper
- Crayons
- Trees


Smooth tree bark


Rough tree bark

What to do:

- Take a piece of paper and a crayon.
- Gently rub the crayon on the paper pressed against the tree trunk to make a bark pattern.
- Do this with two different trees.
- Paste your bark patterns in the space given.
- Write whether each bark feels rough or smooth.



Tree bark 2

Its texture is _____

Tree bark 1

Its texture is _____

Sample

UNIT 3 Living and Non-Living Things

Students' Learning Outcomes

All students will be able to:

- Recognize living and non-living things around them.
- Understand that living things need air, water and food.



Look around! You will see different kinds of things. Everything has its own characteristics and on the basis of those characteristics, things are divided into two main groups:

i. Living things

ii. Non-living things

Needs of Living Things



Living things need food and water.



Plants need sunlight and soil to prepare their own food.

Living things need air. Air is all around us. We cannot see air, however we can feel it. Air is needed to stay alive.



Teacher's Note:

Demonstrate the phenomenon of breathing. Encourage students to practice deep breathing and notice their breathing in different situations (e.g., after running, while sitting quietly).

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i. Living Things

Living things are things that are alive. Humans, plants, and animals are all living things.


A baby boy


Rabbit

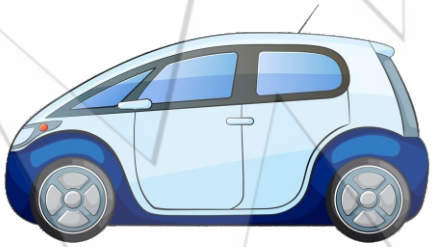

Crow


Zebra


Rose plant

ii. Non-Living Things

Non-living things are things that are not alive. They neither breathe, eat, move on their own or grow in size. They can not have babies.


Car


Ball


Book


Pencil

Characteristics of Living Things

- **Living things can reproduce.**

Living things can have young ones, while non -living things cannot.


Cow have calve.


Plant have seeds.


Chicken have chicks.



Teacher's Note:

Discuss how we know whether something is living or non-living.

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Living things can move.

Living things can move by themselves while non-living things cannot move on their own.



Rabbit is running.



The fish is swimming.



Mimosa leave closes when they are touched.

Living things can grow.

Look at your own baby photograph. Compare it to yourself now. Do you look different now? Have you grown bigger?

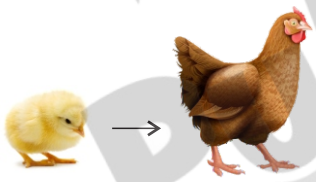


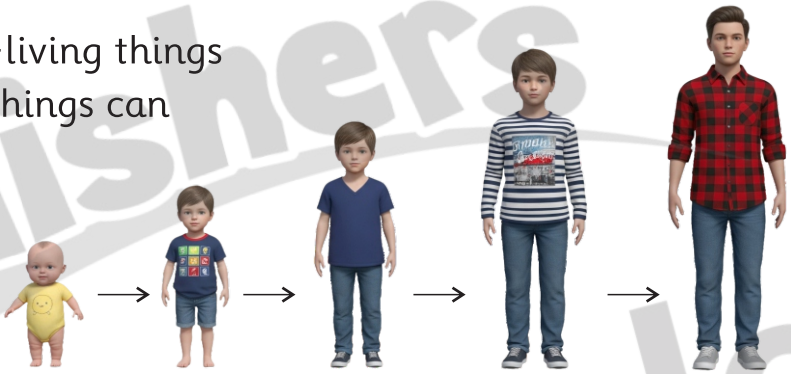
Baby



Adult

Living things can grow while non-living things cannot. The young ones of living things can grow into adults.







Activity

Take a piece of paper and a pencil and walk around your school. Make a list of all things you can see on the paper. Group them as living and non-living things and then paste the paper into your notebooks.



A young plant can grow into an adult plant.

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Check Point

1 Mark (✓) for correct and (×) for incorrect statement.

i. Animals, plants and humans are living things. _____

ii. Table is an example of a non-living thing. _____

iii. Living things can grow in size. _____

iv. Non-living things can not have babies. _____

2 Answer the following questions.

i. Can living things move from one place to another by themselves?

_____

ii. Do living things can need food?

_____

iii. Which things can breathe?

_____

iv. Which things can have babies?

_____

3 Identify the basic needs of plants, animals and humans. Write them in the correct box.



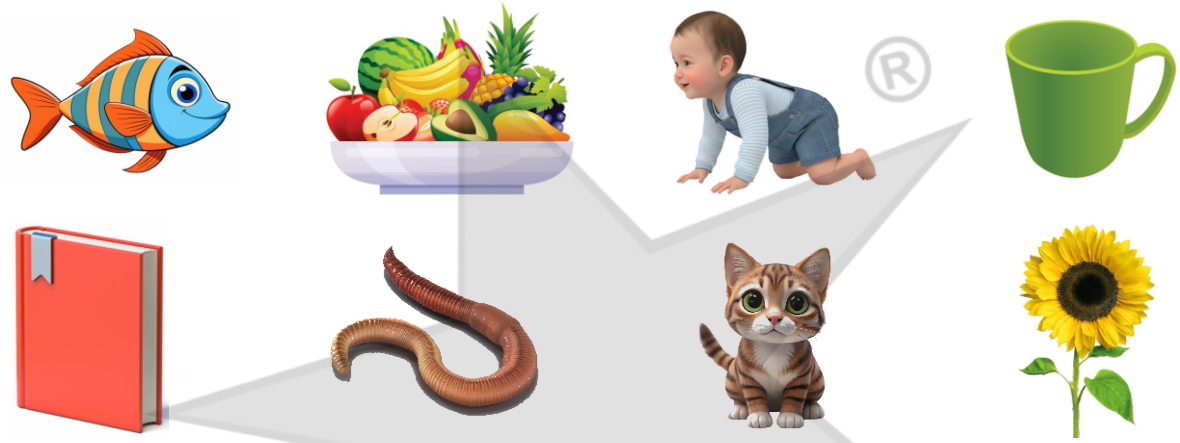
WORDBANK

Food Sunlight Soil Water Shelter Air

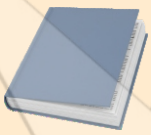
Plants	Humans	Animals

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Sample

4 Circle the living things.



5 Identify which of the following are living or non-living.

Objects	Does it breath?	Does it eat?	Does it move?	Can it have babies?	Is it living or non-living?
					
					
					
					
					

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Let's Do It

Objective: Students will explore how we breathe.

What you need:

- A small mirror or a glass

What to do:

- Teacher divides the class into small groups.
- Ask students to place their hands on their chest and tummy to feel movement as they breathe in and out.
- Ask students to take a deep breath and notice their chest rise and fall.
- Teacher explains that this is how we take in air (oxygen) and release air (carbon dioxide).
- Now provide each group with a small mirror.
- Students will be asked to breathe out onto the surface of the mirror and observe the fog that appears.
- Teacher will explain that this mist is caused by warm air from our lungs mixing with cooler air outside.



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UNIT 5

Animals and their Homes

Students' Learning Outcomes

All students will be able to:

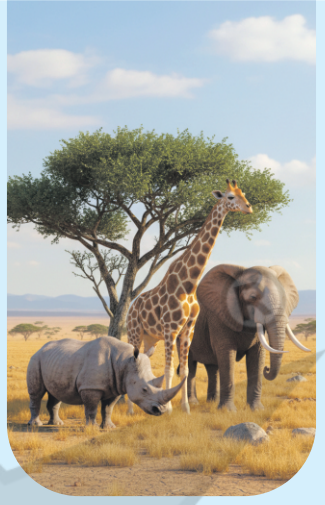
- Identify some common wild and domestic animals.
- Identify the differences between common, domestic and wild animals in terms of physical features.
- Differentiate between animals that can and cannot be kept at home with reasons.
- Recognize measures for better care of domestic and wild animals. Identify the food which different animals eat.
- Recognize the importance of animals as a source of food, joy and transport.
- Identify places where animals are found (desert, jungle, water, mountains, etc.)



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We live in a wonderful world with valleys, tall mountains, big oceans, and a variety of different plants and animals all around us.

Look around, you will see the variety of animals. Some of them are small while others are big in size.



Big animals



Small animals

Similarly, animals can be categorized into wild and domestic. The main difference between wild and domestic animals is how they live and interact with humans:

Domestic Animals

These animals are raised and cared by humans. They depend on people for food, shelter, and protection.

Domestic animals are useful in many ways. They provide us with meat, milk, leather and many other things. Examples include: horse, camel, sheep, goat, buffalo, etc.



Buffalo



Camel



Horse



Sheep



Goat

Wild Animals

Wild animals live in forests, jungles, mountains or oceans. They cannot be kept at home. They can be seen in the zoo but kept in cages because they are dangerous. They look for their own food and do not need humans to take care of them. Example includes: lion, elephant, tiger, and eagle etc.



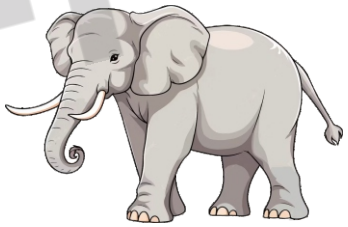
Eagle



Lion



Tiger



Elephant

Publishers
Example

Pet Animals

Some animals can be kept at home for fun or to care of, we called them pet animals. Pets need love, attention, and care to stay healthy and happy. Unlike wild animals, pets depend on people for food, water and shelter. Examples include: Dog, cat, fish, rabbit, etc.


Fish


Rabbit


Cat


Dog

How to take better care of animals

We can help animals and make the world a better place for them by following these simple steps:

- Give them enough food and clean water.
- Provide a safe and comfortable place to live.
- Show them love and kindness.
- Protect their natural homes.
- Do not catch or harm wild animals.

Animals and their Food

Unlike plants, animals cannot make their own food. They have to look for food.

Look at the ants shown below? What food do they eat?



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Animals eat different types of food. On the basis of what they eat, animals can be divided into three different groups:

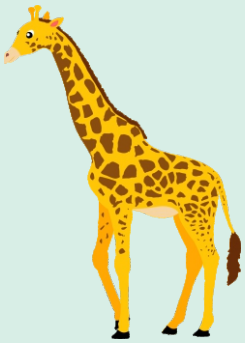
i. Plant eaters

Some animals only eat grass and plants. Examples include: Cow, goat, buffalo, zebra, giraffe, etc.


Goat


Cow


Buffalo


Giraffe

ii. Meat eaters

Some animals only eat meat and flesh of other animals. Examples includes: Cheetah, lion, tiger, wolf, etc.


Cheetah


Wolf


Tiger


Lion

iii. Both plant and meat eaters

There are some animals who eat both meat and plants. Example includes: Monkey, crow, human, etc.


Monkey


Crow


Human

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Importance of Animals

- Animals are good source of food, they provide us with milk, eggs, and meat.



Hen



Meat



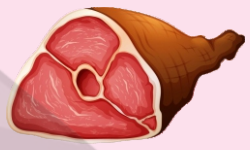
Eggs



Cow

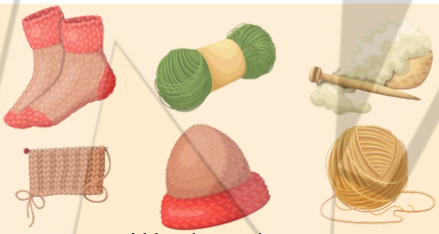


Milk



Meat

- Animals provide us with fabrics (wool, silk, cotton).

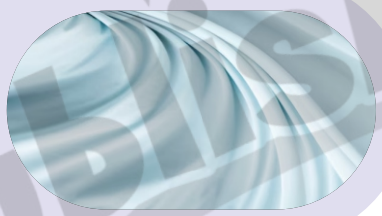


Wool products

Sheep



Silk fabric



Silkworm



- In early times, animals like camel and horse were used for transportation.



A horse pulling the cart.



A camel carrying heavy luggage especially in desert.

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- Animals like oxen help farmers by plowing fields.

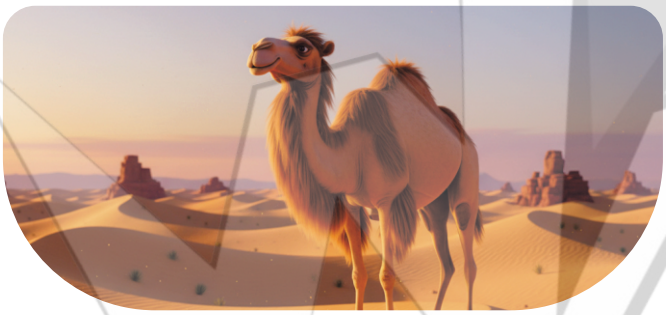


An oxen plowing field.

Animals and their Homes

Animals are found everywhere. Every animal has a special home that keeps them safe and comfortable.

- Camel lives in desert.



- Polar bear lives in polar region.



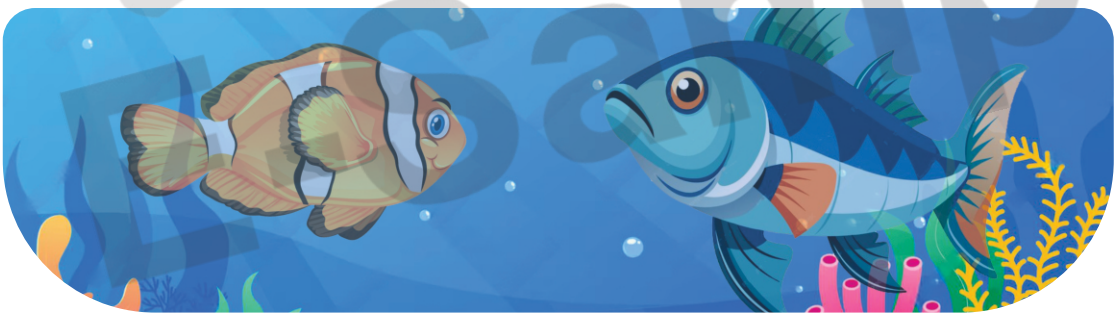
- Rabbit lives in burrow.



- Bird lives in nests.



- Fish live in water.



Wizz Publishers Example

Check Point

1 Choose and write the correct option.

i. Where do fish live?

a. Jungle
b. Water
c. Desert
d. Mountains

ii. Which animal can be kept at home?

a. Cat
b. Lion
c. Tiger
d. Leopard

iii. Why can't wild animals live at home?

a. They are too big and dangerous
b. They are too small
c. They do not eat food
d. They like houses

iv. Which animal is used for transport in the desert?

a. Camel
b. Fish
c. Elephant
d. Dog

v. Which action shows care for animals?

a. Feeding them with food and water
b. Hitting them
c. Keeping them thirsty
d. Leaving them hungry

vi. Animals are important because they give us:

a. Food, joy and transport
b. Cars and buses
c. Toys and clothes
d. Houses

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2 Fill in the blank.

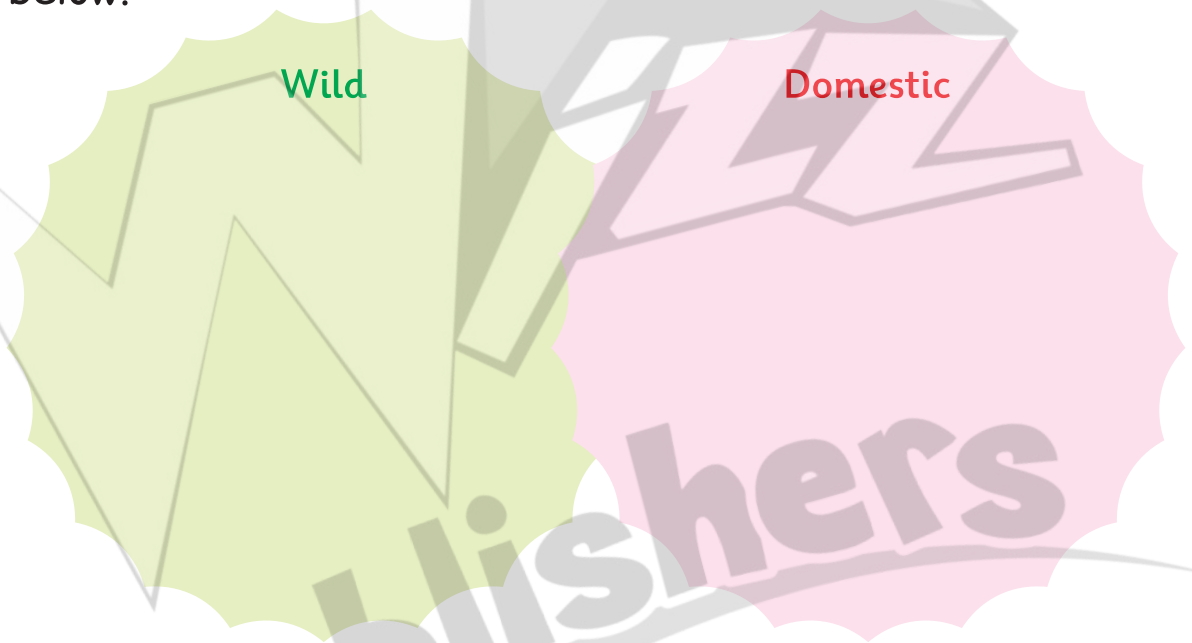
i. Some animals are _____ and some are _____ in size .

ii. Animals provide us with _____, _____ and _____.

iii. Camel lives in _____.

iv. We should provide _____ and comfortable place for animals to live.

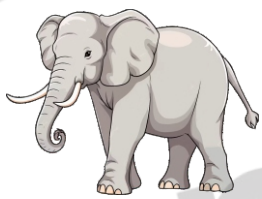
3 Sort the animals into the correct section of the Venn Diagram below.




Squirrel


Cat


Goldfish


Elephant


Crocodile


Rabbit


Snake


Whale

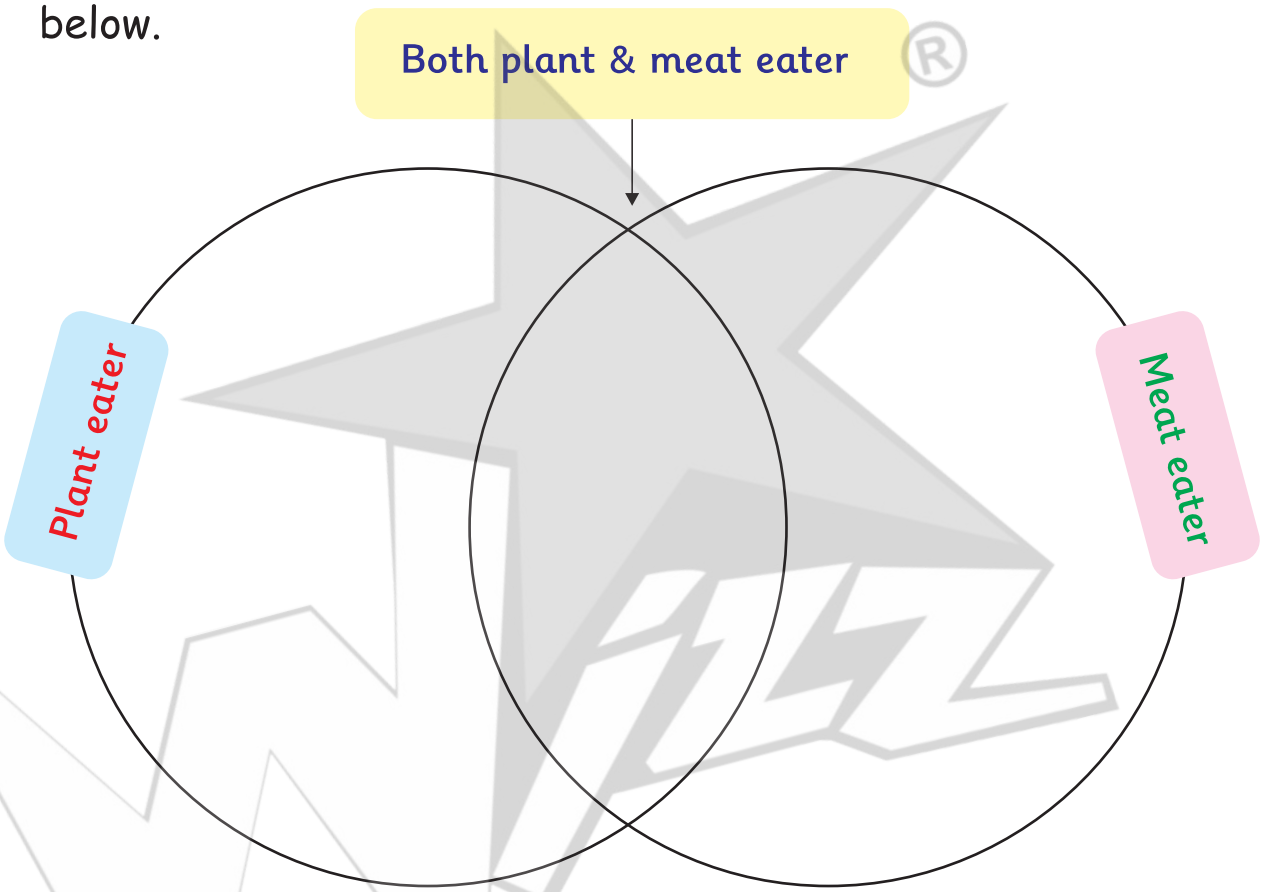

Sheep


Lion


Cow

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4 Sort the animals into the correct section of the Venn diagram below.




Wolf


Squirrel


Polar Bear


Reindeer


Giraffe


Dog


Cow


Tiger


Rabbit


Eagle


Sparrow

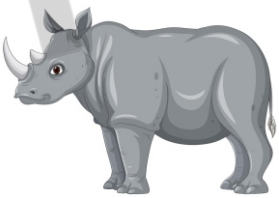

Dophin


Horse


Lion


Badger


Frog


Rhinoceros

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5 Draw at least two items that we get from each one of the following.



Goat gives us:



Cow gives us:



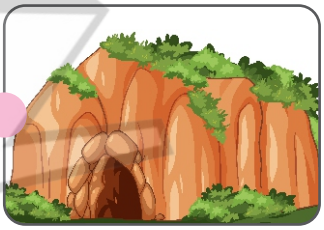
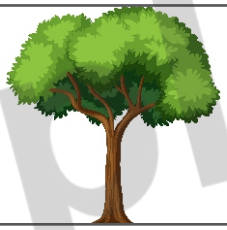
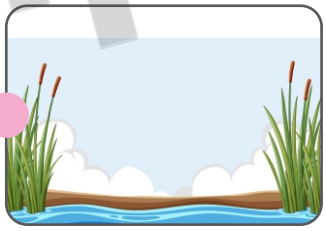
Sheep gives us:



Hen gives us:

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6 Match each living things to its correct home.

Living things	Homes
	
	
	
	
	
	
	

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Let's Do It

Design a Home for a Giraffe: This giraffe needs a new home! Design a giraffe enclosure for a zoo. Think about what a giraffe would like to have inside its house.



Spot six animals hiding in the picture given below. What are they? Write down your answers in the following table.



	Name of an Animal	Domestic /Wild/ Pet
1.		
2.		
3.		
4.		
5.		
6.		

Sample

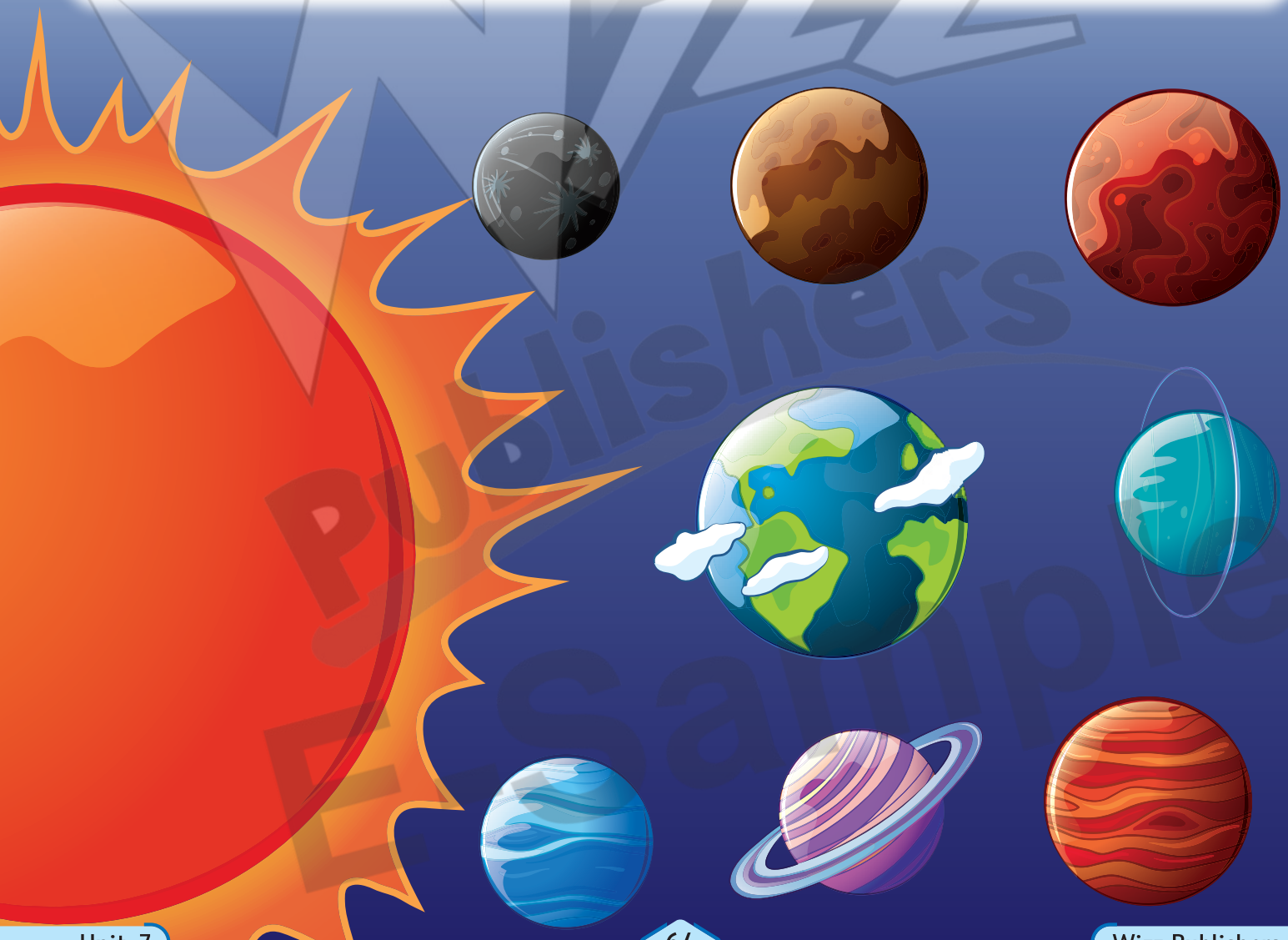
UNIT 7

Our Solar System

Students' Learning Outcomes

All students will be able to:

- Recognize that the Earth is covered with land and water.
- Recognize the concept of planets.
- Identify Earth as planet.
- Recognize the shape of the Earth.
- Identify celestial objects in the sky during day and night.
- Recognize that the sun shines very brightly during the day and gives us heat and light.
- Recognize that the moon and stars shine at night.



Publishers Sample

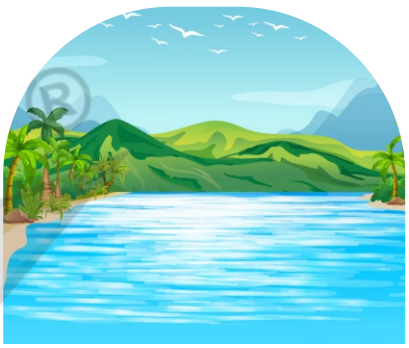
Look around you. Do you see mountains, forests, rivers, oceans and lakes?



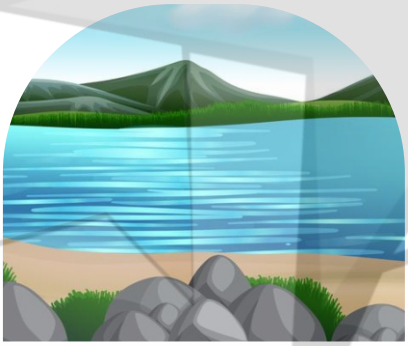
Mountains



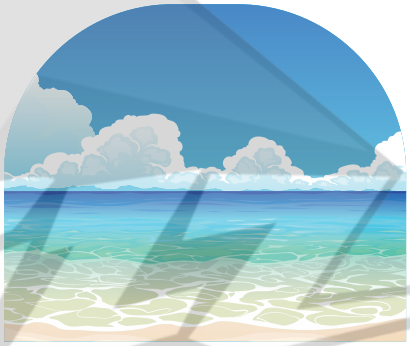
Forest



River



Lake



Ocean

Mountains, forests, rivers, oceans and lakes are all part of our home. Together with other living things, we live in this special place called Earth.

Our Earth

This is how our Earth looks like from space. What is the shape of the Earth? What can you see on the surface of the Earth?



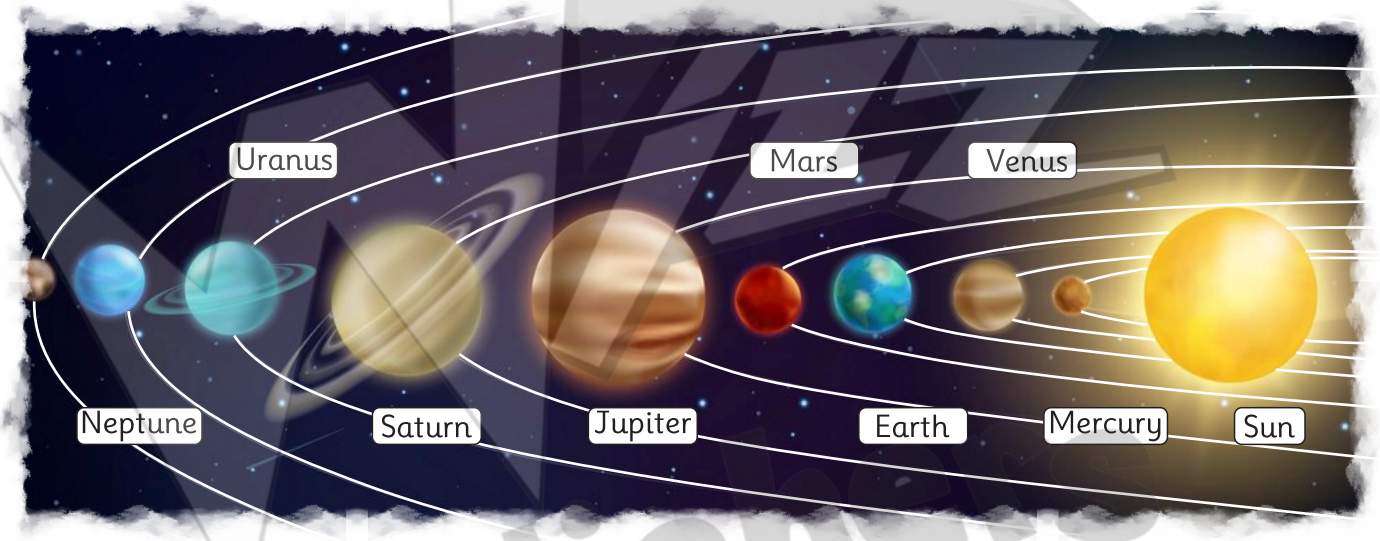
Publishers
E-Sample

The shape of the Earth is like a sphere and is covered with land and water. Water covers a large part of the Earth's surface. Clouds are found in the atmosphere. The atmosphere is a layer of air surrounding the Earth.

The Earth is the only planet that supports life because it has land, water, air and sunlight. The land is made up of rocks. Water can be found in oceans, seas, rivers and lakes. Air is found in the atmosphere.

The Earth is one of the eight planets in our solar system. A planet is a very large object that moves around the Sun in a circular path. The Earth is the third planet from the Sun.

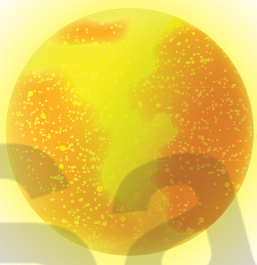
The following picture shows the order of the planets.



Celestial Objects

Have you ever spotted the following objects in the sky? Write Yes or No.

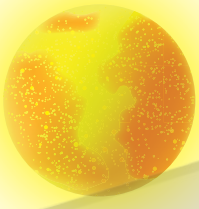
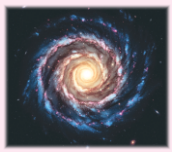




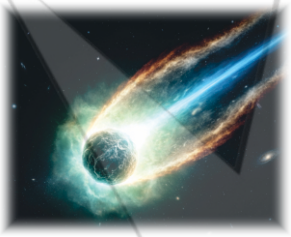


Publisher's E-Sample

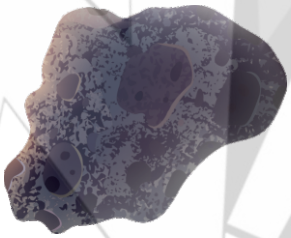
These objects, i.e., moon, sun and stars are called celestial objects. We can observe different celestial objects during the day and night.

Celestial objects during the Day	Celestial objects during the Night		
			
The Sun	Moon	Stars	Galaxy

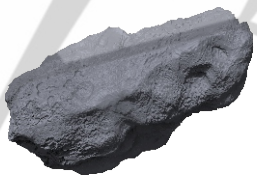
Some celestial objects can be seen both during the day and at night like comets, asteroids, meteors and satellites.



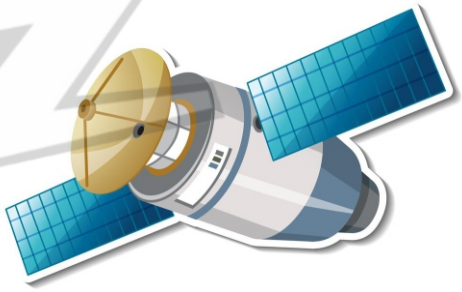
Comet



Asteroid



Meteor

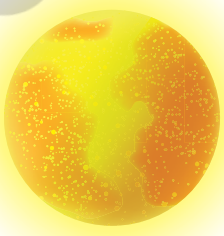


Satellite

The Sun

Have you ever observed twinkling stars in the sky in a clear night?

A star is made up of very hot gases and it gives a lot of energy, heat and light. It is the biggest star of our solar system. It looks much bigger and brighter than other stars because it is the closest star to the Earth.



Publishers E-Sample

The heat energy from the sun provides us with warmth. Whereas, light energy enables plants to make their food. Without heat and light from the sun, there would be no life on the Earth.

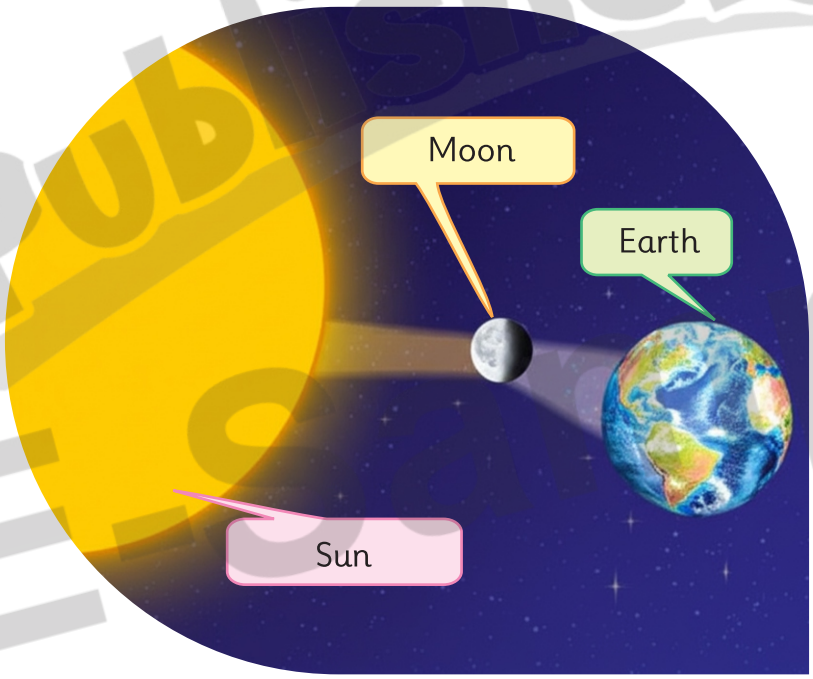




The Moon

We can see a full moon on some nights. The moon is the Earth's only natural satellite that goes around the Earth.

The moon is round and much smaller than the Earth. It does not support life because it has no air. The moon does not have its own light, it reflects the sunlight coming from the sun. The sunlight falls on the surface of the moon and makes it look bright.



Publishers Example

Check Point

1 Chose and write the correct option.

i. The shape of the Earth is _____.

a. sphere
b. flat
c. square
d. rectangle

ii. There are_____ planets in the solar system.

a. seven
b. eight
c. nine
d. six

iii. Planet orbit around the Sun in a_____ path.

a. circular
b. zig zag
c. straight
d. spiral

iv. The Earth is the_____ planet from the Sun.

a. third
b. forth
c. fifth
d. six

v. The_____ does not have its own light.

a. sun
b. moon
c. planet
d. comet

2 Answer the following questions.

i. Define planet.

_____

ii. What are celestial objects?

_____

Publishers E-Sample

iii. Why does the Sun appear smaller in size?

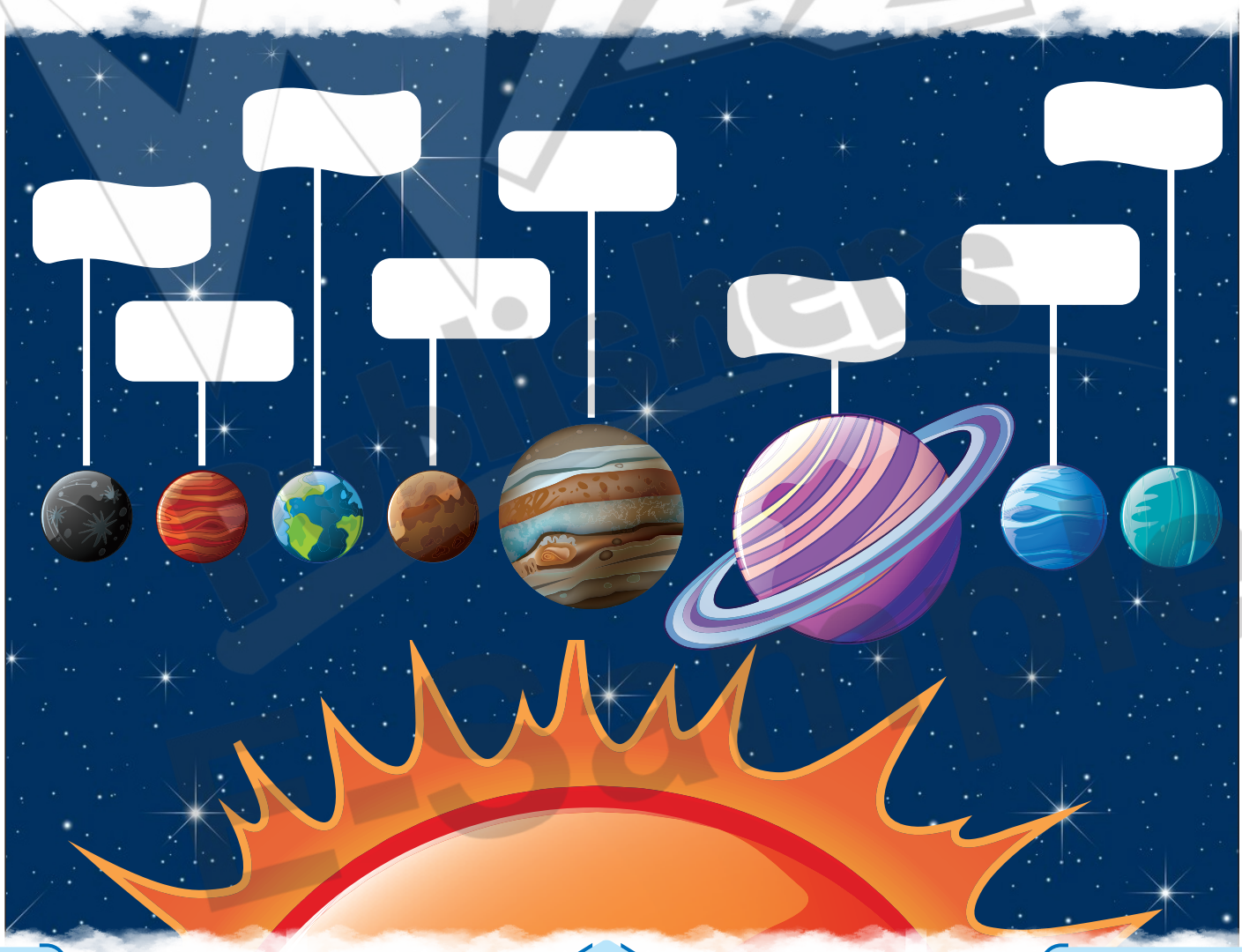
iv. How does moon shine?

v. What would happen if there would be no Sun?

3 Use the word bank given to label the names of the planets.

WORD BANK

Mars	Earth	Neptune	Saturn
Jupiter	Uranus	Mercury	Venus

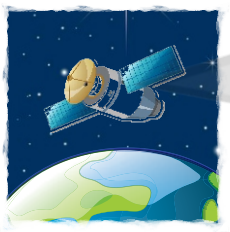


4 Identify the correct name of the mentioned celestial objects.

i. 

Circle the correct name of the celestial body?

- ☐ Sun
- ☐ Earth
- ☐ Moon
- ☐ Satellite

ii. 

Circle the correct name of the celestial body?

- ☐ Moon
- ☐ Earth
- ☐ Star
- ☐ Satellite

iii. 

Circle the correct name of the celestial body?

- ☐ Sun
- ☐ Star
- ☐ Satellite
- ☐ Earth

iv. 

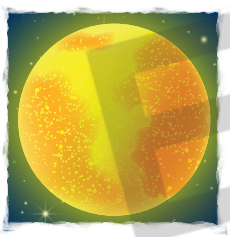
Circle the correct name of the celestial body?

- ☐ Moon
- ☐ Star
- ☐ Earth
- ☐ Sun

v. 

Circle the correct name of the celestial body?

- ☐ Moon
- ☐ Satellite
- ☐ Earth
- ☐ Sun

vi. 

The SUN is a:

- ☐ Star
- ☐ Moon
- ☐ Planet
- ☐ Satellite

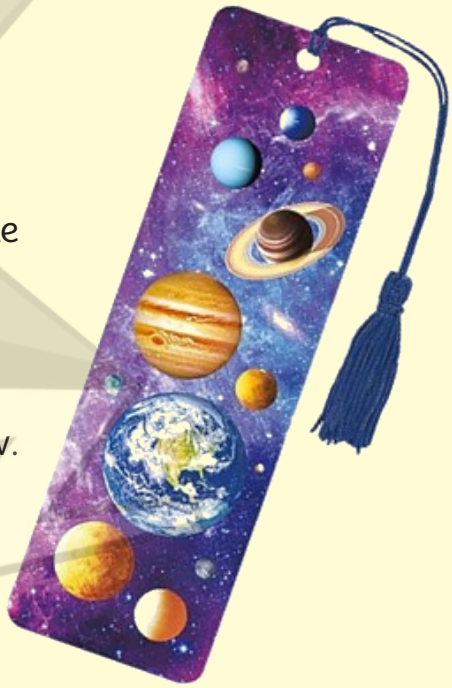
Sample



Let's Do It

The Solar System - Making a bookmark

- Design and make a bookmark with the "The Solar System" as its theme.
- You may draw the whole Solar System or any of the objects in the Solar System.
- On the back of the bookmark, list three facts about the Solar System or the object you have drawn.
- Draw the prototype of your bookmark in the space provided below before making it.
- Before make your bookmark, draw its prototype below.



My Bookmark Design

Publishers E-Sample