



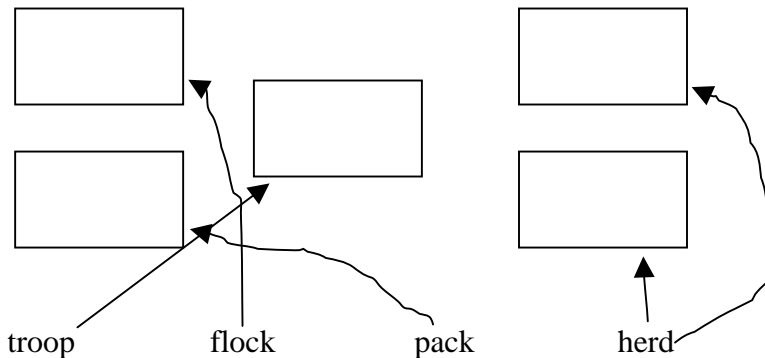
**BLUE PLANET BOOK 5**

**UNIT 1**

P.13-14

**What I learned...**

A.



B.

1. Only mammals produce milk to feed their young.
2. Only mammals have true hair.
3. Mammal's brain is far more developed than those of any other animal.

C.

1. The most numerous animals are **insects**.
2. Four-footed animals are called **tetrapods**.
3. Two examples of mammals that do not have feet are **whales and seals** .
4. The animal that lives in a den is called **fox**.
5. A beaver's home is called a **lodge**.
6. Animals that dig tunnels underground are called **burrowers**.

D. Explain what makes a sedentary animal different than a wandering one?

- Sedentary animals have an adequate local food supply and comfortable climate. They don't move around.
- Wandering animals have no permanent home. They must move around to find food because of seasonal shortage and local overpopulation. They also move to avoid severe weather.

P.21

**What I learned...**

A.

1. F
2. T
3. F

4. T
5. F
6. T
7. F
8. F
9. T
10. F

B. Write how baboons travel and defend themselves from predators.

- Baboons travel in a troop, the troop is very organized. They defend themselves by arranging so that the adult males, strongest members, will be encountered first. They also defend as a group, this makes them stronger than a single baboon.

C.

1. observe
2. experience
3. learn

P.23

Asian                      African

P.26

<b>Alike</b>	<b>Different</b>
huge bodies	size
gentle	ears
long wrinkled trunks	head
tusks	shape of tusks
herbivorous	

P.33-35

**What I learned...**

A. Write two interesting facts about facts that you learned about elephants.

**(Answers may vary with the students.)**

1. In some Asian countries, elephants take part in festivals and religious ceremonies. These elephants are dressed up in colorful and elaborate cloths.
2. Elephants can walk very quietly because they have soft tissue between the toes that cushions their step.

B.

1. F
2. F
3. F
4. F
5. T

6. F
7. T
8. T
9. F
10. T

C.

1. Elephants are very **social** and gentle animals.
2. Elephants are **excellent** swimmers.
3. The oldest and most **experienced** elephant is the **leader** of the herd.
4. The **gestation** period of the elephant is 22 months.
5. When an elephant senses danger, it will make a **trumpeting** sound.
6. Ivory is used to make **jewelry**.

D.

1. To smell, pick up food, breathe, drink, shower and dust bathe.
2. By “talking” to each other using sounds and by touching each other.
3. To protect its skin from insects and the sun.
4. They form a tight circle to with the young elephants in the middle. Then they Trumpet loudly and open their ears to look big. If the enemy does not leave the elephants will charge.
5. Yes

## **UNIT 2**

P.39

- Surface tension made the water bulge upward.

P.40

- They are both examples of solid water.

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1. Drinking
2. Playing
3. Farming
4. Factories
5. Transportation

P.52

- The water at the top was clearer.
- The mud and other solids in the water were at the bottom.
- No, it is not fit to drink, because it is not clean enough.
- We need to use a sewage treatment plant to renew water.

P.53

- The filtered water is cleaner than the original water in the plastic bottle.
- No, it is not fit to drink, because it is not clean enough.

P.56-57

**What I learned...**

A.

1. The chemical formula for water is **H<sub>2</sub>O**.
2. Water is made up of many **molecules**.
3. Some insects can “walk” on the water because of **surface tension**.
4. Water is the only substance that can be found in three forms: **liquid**, **solid** and **gas**.
5. Oceans and seas make up **97%** of the Earth’s water.
6. Only **1%** of the Earth’s water is fit for humans.
7. Large pieces of ice from glaciers are called **icebergs**.
8. A drought occurs when there is little or no **precipitation**.

B. Describe the water cycle.

- The movement of water from the Earth to the atmosphere and back again to the earth to the Earth.

C.

1. We must take care of the water we have.
2. We must not waste it.
3. We must avoid polluting water.

D. What can we do to make water fit for human use.

- We can clean water at a **water treatment plant**.
- We can use the **sedimentation** method to renew water.
- We can use **filtration**.
- We can use **desalination**.

E. What three ways can we desalinate water?

- **Boil** the water and remove the salt through a **special filter**.
- Use a method called **freezing**.
- **Absorb salt** with the help of specific organisms.

F. Name ten things we can do to use less water. (Answers may vary with the students.)

1. Cooking 6.
2. Drinking 7.
3. Cleaning 8.
4. Flushing toilets 9.
5. Watering gardens 10.

## UNIT 3

P.62

- Broader noses
- Opposable thumbs
- Prehensile (tails)

P.63

<b>Alike</b>	<b>Different</b>
live in groups or bands	live in trees/live on the ground
new world monkeys	move quickly/move slowly
live in Central/South America	use tails as a hand/use tail for balance
eat fruits and leaves	hair

P.70

<b>Alike</b>	<b>Different</b>
both live in Southeast Asia	lesser apes/great apes
live in trees	quick swingers/slow swingers
have long hair	eat many things/eat mostly figs
	arms don't drag/arms drag
	noisy/quiet

P.75

<b>Gorilla</b>
1. largest member of the ape family
2. entire body except for their face is covered with dark fur.
<b>Proboscis Monkey</b>
1. large floppy nose
2. fur changes colors

<b>Macaque Monkey</b>
1. they live in below zero temperature
2. they like to warm themselves and relax in hot springs
<b>Spider Monkey</b>
1. rarely come down to the ground
2. tails are longer than their bodies

<b>Primate</b>	<b>Where they live</b>	<b>Food they eat</b>	<b>Size</b>	<b>New or old world</b>	<b>Gestation period and number of offspring</b>	<b>Life expectancy</b>
<b>Gibbon</b>	Southeast Asia (Sumatra, Thailand and Malaysia)	leaves, flowers, fruit and insects	X	Old world	one offspring per gestation period	25 years
<b>Spider Monkey</b>	Central/South America	fruit, nuts, leaves, bark, insects and vertebrates eggs	small	New world	one offspring per year	12-45 years
<b>Orangutan</b>	Southeast Asia (Borneo and Sumatra)	wild figs	X	Old world	one offspring every 8-9 years	X
<b>Chimpanzee</b>	Africa	fruit, leaves, flowers, seeds, bark, honey, insects, birds eggs, meat	X	Old world	6-8 months gestation, one offspring	60 years
<b>Wolly Monkey</b>	Central/South America	fruit, flowers and leaves	X	New world	X	X
<b>Gorilla</b>	Central Africa	leaves, vines and bamboo	up to 1.8 meters height, 225 kilograms	Old world	8-10 months gestation, 1 offspring	50 years
<b>Lemur</b>	Southern Madagascar and Comoro	fruit, leaves and plants	up to 1.5 meters, 2-3.5	Old world	4-5 months, 1 or 2 offspring	27 years

	Islands		kilograms			
<b>Humans</b>	Everywhere	Everything	Different sizes	---	9 months, usually one offspring	75 years

P.80-81

**What I learned...**

A.

1. Apes
2. Monkeys
3. Prosimians

B.

1. T
2. F
3. T
4. F
5. T
6. T
7. T
8. F
9. T

C.

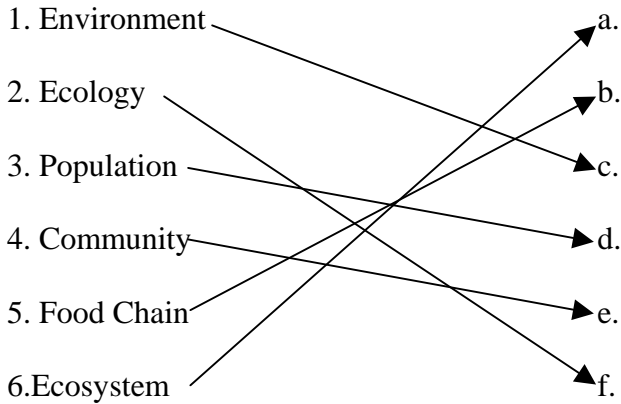
1. The troop's leader, an adult male called a silverback, protects them by rearing up and beating its chest.
2. Jane Goodall
3. They show their emotions with their faces.
4. The lemur belongs to the lowest order of primates
5. A stink fight is when a lemur rubs its tail on the smelly glands under its arms and then waves the smelly tail in the other male's face.
6. They roll the snow into balls.
7. The main difference is the tails that are called prehensile. New world monkeys also have opposable thumbs.
8. Jane Goodall observed that Chimpanzees use tools in several ways.

## UNIT 4

p.102-103

### **What I learned...**

A.



B.

1. The three main factors that affect our ecosystem are **water**, **sunlight** and **soil**.
2. Accidents can also affect our ecosystem. A terrible example of this was the tanker **Exxon Valdez**, which spilled **11 million gallons of oil**.
3. All animals compete for **food**, **water** and **shelter**. (or **light**, or **territory**)
4. Six ways a living thing can be studied are:

1. individual	4. ecosystem
2. population	5. biome
3. community	6. biosphere

C. Write three ways in which humans can improve their ecosystem.

1. plant trees and plants
2. introduce birds to eat insects
3. build wildlife reserves
- (4. establish programs to improve forest and green areas)
- (5. create programs to clean up pollution)
- (6. establish laws)



Type of forest biome	Location	Climate and amount of rain	Plants that live there	Animals that live there
Coniferous	Canada, Alaska, Northern Asia, Northern Europe	cold, snowy winter and warm summer	trees called conifers and evergreens	pine martens, deer, bears, caribou, moose, lynxes, beavers and birds
Deciduous	North America, Europe and Asia	moderate, at least 75cm of rain each year	wildflowers, ferns, deciduous trees	insects, spiders, snails, worms, bears, white-tail deer, raccoons, otters, beavers, foxes, frogs, squirrels, snakes, salamanders, eagles and birds.
Tropical Rain Forest	South America, Central Africa, Southern Asia, Hawaii and a small part of Australia	the only season is summer, rains everyday	4 layers of growth: emergent layer, canopy layer, under story layer and forest floor -lianas, exotic orchids	eagles, small monkeys, tropical birds, insects, spiders, lizards, butterflies, bats, frogs, jaguars, snakes and gorillas

1. In which forest is the soil more fertile and why?
  - Deciduous forest because all the trees and plants lose their leaves. They decay and make the soil rich in nutrients.
  
2. Why are there more plants and animals in tropical rain forests?
  - The hot and humid climate make it easy for things to grow and live.
  
3. In which forest would you like to live? Why?
  - I'd like to live in Coniferous because I like the weather there.

(Answers may vary with the students.)

P.120-121

**What I learned...**

A.

Desert
Grassland
Tropical Rain Forest
Tundra
Deciduous
Coniferous

B.

- Freshwater Biomes include both still such as lakes and ponds, and running water such as rivers and streams.
- Marine or Ocean, a salt water environment filled with organisms that are adapted to live in a salt-water. Has shallow and deep areas.

C. What are estuaries?

- Estuaries are where rivers meet the sea, and fresh water mixes with salt-water.

D. Which biome did you find the most interesting? (Answers may vary with the students.)

- Marine biomes are the most interesting because a lot of organisms live in there.

E. Which animal did you find the most interesting? Which biome does this animal belong to? Write a few facts about it. (Answers may vary with the students.)

- Camels is the most interesting because they can survive in hot deserts by storing water in body fat in their humps. Like other desert animals, the camel loses little water in its wastes.

F. Why do you think rain forests are so important? (Answers may vary with the students.)

- Rain forests are very important because they produce oxygen that is needed for others to survive.

G. In which biome do you live? Write a few facts about it.

- I live in the biome of tropical rain forest. It rains a lot of here. There are more varied plant and animal life here than in any other land biome. The trees produce oxygen that others need to live.

H. What are the four layers in which rain forest life is divided into? Write the names of some of the animals that live in each layer?

- Emergent Layer: eagles, butterflies, parrots and toucans
- Canopy Layer: monkeys, apes and sloths
- Understory Layer: lizards, bats, frogs and butterflies
- Forest Floor: snakes, tapirs, jaguars, tamanduas and gorillas

## UNIT 5

P.134

What I learned...

1. What is air? What is it made of?
  - Air is an invisible mixture of gases that surrounds the earth. Air is made up of 21% oxygen, 78% nitrogen and 1% carbon dioxide, water vapor and other gases.
2. What is photosynthesis and why is it important?
  - Photosynthesis is the plant's food making process. It is important because it produces oxygen.
3. What is the difference between the respiratory and circulatory systems?
  - Respiratory system brings oxygen to the blood and the circulatory system brings blood to all parts of our body.
4. Why is the ozone layer so important?
  - It protects us from harmful ultraviolet rays.
5. What are the names of the four layers of the Earth's atmosphere? Write one characteristic of each layer.
  1. Thermosphere- It's nearly empty of particles.
  2. Mesosphere- The temperature is about  $-60^{\circ}\text{C}$
  3. Stratosphere- Planes, jets and air balloons are found there.
  4. Troposphere- All life exists here.