CLASS: IV SUBJECT: SCIENCE

L - 3: ADAPTATION IN ANIMALS

CHECKPOINT: 1 (Pg. No. 24)

Fill in the blanks:

1. Arboreal 2. Terrestrial 3. Aquatic 4. Aerial

5. Terrestrial 6. Aerial 7. Amphibians 8. Amphibians

CHECKPOINT: 2 (Pg. No. 27)

Write the kind of animal that matches the feature:

1. Herbivores 2. Carnivores 3. Parasites 4. Camouflaging Animals

BOOK EXERCISE: (Pg. No. 28)

A. Tick (\checkmark) the correct answers:

1. (a) herbivores 2.(c) Parasites 3. (c) Chameleon

B. Write True or False.

1. False 2. False 3. True 4. False

C. Fill in the blanks with the correct words from the box.

1. snake 2. fur 3. tail 4. webbed

D. Guess my name.

1. Duck 2. Squirrel 3. Camel 4. Snake

Short Answer Type Questions:

Q1. How do amphibians breathe on land and in water?

Ans. Amphibians breathe through lungs on land and through skin in water.

Q2. What is hibernation? Name two hibernating animals.

Ans. The hiding of some animals in warm places to save themselves from cold during winters is called hibernation. Frog and lizard are hibernating animals.

Q3. What is camouflage? Give some examples.

Ans. The merging of an animal by means of its body colour with its surroundings for protecting itself from its enemies is called camouflaging. For example, chameleon and grasshopper.

Q4. What adaptation does a porcupine have to protect itself from its enemies?

Ans. Porcupine has spines on its body to protect itself from its enemies.

Q5. Why do tigers have strong legs?

Ans. Tigers have strong legs to run very fast for catching their prey.

Q6. Parasitic animals do not have teeth. Why?

Ans. Parasitic animals do not have teeth because they suck food (blood) from the body of their host.

Q7. A grasshopper is exactly the colour of green grass. Why?

Ans. A grasshopper is exactly the colour of green grass to make it difficult to be spotted by its enemies.

Long Answer Type Questions:

Q1. What is habitat? Explain the different types of animals living in different habitats.

Ans. The natural home of an animal is called its habitat. Different types of animals living in different habitats are :

1. **Aquatic animals** : Animals that live in water are called aquatic animals. e.g. fish, crab etc.

2. Amphibian animals: Animals that live both on land and in water are called amphibian animals. e.g.

frog, toad etc.

3. **Aerial animals** : Animals that fly in the sky are called aerial animals. e.g. parrot, pigeon etc.

4. **Terrestrial animals**: Animals that live on land are called terrestrial animals. e.g. deer, camel etc.

5. Arboreal animals : Animals that spend most of their time on trees are called arboreal animals. e.g.

monkey, squirrel etc.

L - 4: REPRODUCTION IN ANIMALS

CHECKPOINT: 1 (Pg. No. 34)

Write True or False:

1. True 2. True 3. False 4. False 5. False

BOOK EXERCISE: (Pg. No. 35)

A. Tick (\checkmark) the correct answers:

1. (a) Embryo 2. (b) caterpillar 3. (a) Dog 4.(c) Frog

B. Fill in the blanks with the correct words from the box.

1. embryo 2. tadpole 3. moulting

4. pupa 5. cocoon

C. Give one word for the following:

1. Reproduction 2. Reptiles 3. Yolk 4. Spawn

Short Answer Type Questions:

Q1. What is reproduction?

Ans. The process by which animals produce babies of their own kind is called reproduction.

Q2. Name the groups of animals that lay eggs.

Ans. Birds, fishes, reptiles, amphibians and insects lay eggs.

Q3. Describe the life cycle of a frog.

Ans. A frog produces spawn of eggs in water . The eggs hatch into tadpoles which look like fishes. After few days, they develop into young frogs with tails. In next few days, their tail disappears and adult frogs are formed.

Q4. How do mammals take care of their babies?

Ans. Mammals take care of their babies by feeding and protecting them from enemies.

Q5. Circle the odd one out and give reason for your choice.

(a) Butterfly, Housefly, Mosquito, Frog

Ans. Frog: It is an amphibian, rest are insects.

(b) Snake, Turtle, Lizard, Crow

Ans. Crow: It is a bird, rest are reptiles.

(c) Lion, Horse, Monkey, Tadpole

Ans. Tadpole: It is a larva, rest are adults.

(d) Sparrow, Parrot, Dolphin, Pigeon.

Ans. Dolphin: It is a mammal, rest are birds.

Q6. Give reasons for the following:

(a) The young ones of mammals have a larger number of survivors. Why?

Ans. Mammals take good care of their babies. They feed them and keep them safe until they learn to look after themselves. So their young ones have large number of survivors.

(b) Why does a tadpole look like a fish?

Ans. A tadpole looks like a fish because it lives in water and has a long tail and gills.

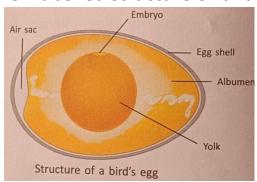
Long Answer Type Questions:

Q1. Explain the life cycle of a butterfly.

Ans. The life cycle of butterfly involves four stages:

- 1. **Egg**: Eggs are laid on plants by the adult female butterfly.
- 2. **Larva :-** When the eggs hatch, tiny larva begins to grow . It looks like a worm. It is also called caterpillar.
- 3. **Pupa:** The larva feeds on leaves and grows rapidly. It covers itself in a cocoon called a pupa.
- 4. Adult Butterfly:- The cocoon bursts and the adult butterfly comes out.

ACTIVITY: Draw a well labelled structure of bird's egg:



L-7: TEETH AND DIGESTION

CHECKPOINT: 1 (Pg. No. 54)

Name of the following:

1. Milk Teeth

2. Pulp

3. Canines

4. Enamel

5. Root

CHECKPOINT: 2 (Pg. No. 57)

Fill in the blanks:

1. bad breath, toothache

2. starch

3. small intestine

4. large intestine

BOOK EXERCISE: (Pg. No. 58)

A. Tick (\checkmark) the correct answers:

1. (a) 0

2.(b) milk teeth

3. (c) 32

4. (b) incisors

B. Write True or False:

1. False

2. True

3. True

4. True

C. Match the following.

Column A

Column B

1) Enamel

A) The layer below the enamel (2)

2) Dentine

B) The outermost white layer of the tooth(1)

3) Pulp

C) Hold the teeth in place(4)

4) Gums

D) Make us feel the toothache(5)

5) Nerves

E) The central part of the tooth(3)

Short Answer Type Questions:

Q1. Write the names and functions of the four types of teeth.

Ans. (a) Incisors - They are used to bite the food.

- (b) Canines They are used for tearing the food.
- (c) Premolars They are used for crushing the food.
- d) Molars They are used for grinding the food.

Q2. Write down the path of food taken in the digestive system.

Ans. Mouth \rightarrow Food pipe \rightarrow Stomach \rightarrow Small intestine \rightarrow Large Intestine \rightarrow Anus

Q3. Unhealthy teeth can lead to poor digestion. How?

Ans. Unhealthy teeth cannot chew the food well. The un-chewed food cannot be digested properly.

Q4. Why should we chew the food well while eating?

Ans. We should chew the food well while eating because chewing mixes saliva properly with food and helps in the digestion.

Q5. Why are teeth at the back of jaw broader?

Ans. Teeth at the back of jaw are broader to crush and grind the food properly.

Long Answer Type Questions:

Q1. How should we take care of our teeth?

Ans. We should take care of our teeth in following ways :-

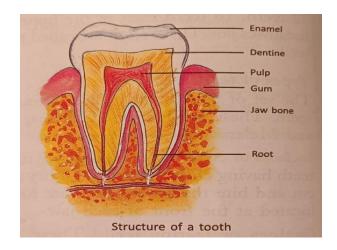
- 1. We should brush our teeth every morning and every night before going to bed.
- 2. We should move brush both upwards and downwards while brushing teeth.
- 3. We should use a dental floss to clean between two teeth.
- 4. We should rinse our mouth with clean water after every meal.
- 5. We should avoid too much of sweets or aerated drinks.
- 6. We should visit dentist regularly for checkups.

Q2. What are milk teeth and permanent teeth?

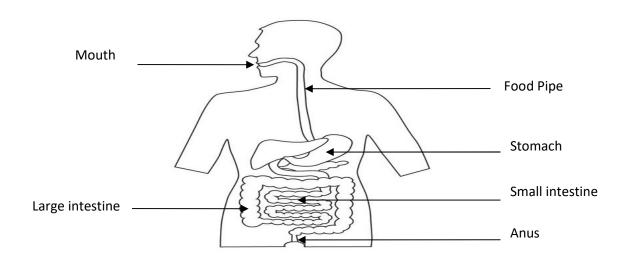
Ans.

No.	Milk Teeth	Permanent Teeth
1.	The teeth that grow between the age of six and nine months are called milk teeth.	The new set of teeth that takes place of milk teeth is called permanent teeth.
2.	They fall out between six and twelve years of age.	They fall out in old age.
3.	A child has 20 milk teeth.	An adult has 32 permanent teeth.

ACTIVITY: Draw a well labelled the structure of a tooth.



Q2. Label the parts of Human digestive system. Ans.



L-8: STAYING SAFE

CHECKPOINT: 1 (Pg. No. 65)

Write Yes or No:

1. No

2. No

3. No

4. Yes

BOOK EXERCISE: (Pg. No. 65 & 66)

A. Tick (\checkmark) the correct answers:

1. (b) Synthetic

2.(b) Water

3. (a) Cold Pack

4. (b) locked cupboards

B. Fill in the blanks with the correct words from the box:

1. zebra

2. labelled

3. sand

4. open

C. Write True or False:

1. False 2. True

3. False

4. False

5. True

Short Answer Type Questions:

Q1. What is an accident?

Ans. An accident is an unfortunate, unexpected and unintentional incident that harms us . It occurs due to carelessness.

Q2. Why should we wear life jacket while swimming?

Ans. We should wear life jacket while swimming to avoid drowning.

Q3. What is first aid?

Ans. The first help given to an injured person before the doctor comes is called first aid.

Q4. Where should we keep medicines in our house? Why?

Ans. We should keep medicines in labelled bottles inside locked cupboards to keep them out of reach of children.

Q5. Why is it suggested to apply a cold pack immediately after a bruise?

Ans. Applying a cold pack on a bruise slows down the bleeding under the skin.

Q6. Why should the patient lean his head forward, in case of nose bleed?

Ans. So that he does not swallow blood.

Q7. A cut or wound should not be left open. Why?

Ans. A cut or wound should not be left open to prevent it from dust or germs.

Long Answer Type Questions:

Q1. Prepare a list of road safety rules?

Ans. We should follow the following safety rules on road:

- 1. Always walk on footpath.
- 2. Always cross the road at zebra crossing.
- 3. Never play on or near the road.
- 4. Before crossing the road, look at your right, then left, then right again and cross the road when it is clear .
- 5. Do not talk on phone while crossing the road.

Q2. How can we help a person having nose bleeding?

Ans. We can help the person by following ways:

- 1. Make the person sit.
- 2. Lean his head forwards so that he does not swallow blood.
- 3. Ask him to close the nose by holding it in between the thumb and fingers.
- 4. Ask him to breathe through mouth.

ACTIVITY: Draw and label any three road safety symbols.



L-11: WEATHER

CHECKPOINT: 1 (Pg. No. 89)

Fill in the blanks.

1. Weather

2. Climate

3. Temperature

4. sea breeze

BOOK EXERCISE: (Pg. No. 89)

A. Tick (\checkmark) the correct answers:

1. (b) weather report

2. (c) Noon

3. (a) land breeze

B. Fill in the blanks with the correct words from the box

1. weather

2. slanting

3. slower, land

4. lighter

Short Answer Type Questions:

Q1. Why are noons hotter than mornings and evenings?

Ans. Noons are hotter than mornings and evenings because sunrays fall straight on the earth at this time. They stay in a small area making it hot.

Q2. What is the difference between weather and climate.

Ans. Weather is the state of atmosphere at a particular place and time, where as climate is the average weather condition at a particular place over a long period of time.

Q3. Why are rural areas often cooler than towns and cities?

Ans. Rural areas are cooler than towns and cities because they are generally open, green and have lesser number of dwelling places.

Q4. Why is weather forecasting important for us?

Ans. Weather forecasting helps us to know whether the day will be cold or hot, cloudy or rainy. It helps farmers and fishermen to plan their work.

Q5. What causes sea and land breezes?

Ans. The sea and land breeze causes due to:

- 1. the difference in heating and cooling of land and water.
- 2. expansion of air on heating cause land breeze.

Q6. Hot air balloons rise up in the air. Why?

Ans. The hot air is lighter which raises balloon up in the air.

Q7. Nights in deserts are cooler than days. Why?

Ans. Nights are cooler in deserts because sand gets heated up quickly during the days. It loses more heat at night and becomes cool.

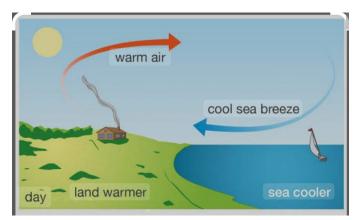
Q8. Why are room heaters in winter kept on the floor and not mounted on the walls like air-conditioners?

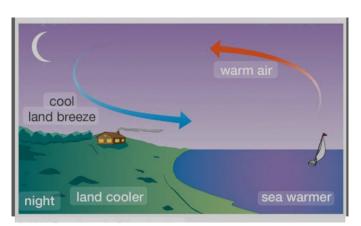
Ans. Room heaters make the room air warm which becomes lighter and rises up, whereas air-conditioners cool the air, which is heavier and tends to remain at lower level. So room heaters are kept on floor.

Long Answer Type Questions:

Q1. Differentiate between Sea breeze and land breeze with diagram.

Ans.





SEA BREEZE

LAND BREEZE

S.No.	Sea Breeze	Land Breeze
1	The wind blowing from the sea towards	The wind blowing from land towards the
	the land is called sea breeze.	sea is called land breeze.
2	It occurs during the day.	It occurs during the night or early
		mornings.
3	The temperature tends to decrease	The temperature remains the same
	during sea breeze.	during the land breeze.

L – 13: FORCE, WORK AND ENERGY

CHECKPOINT: 1 (Pg. No. 105)

Give one word answers:

1. Muscular force

2. Gravity

3. Solar Energy

4. Hydroenergy

CHECKPOINT: 2 (Pg. No. 107)

Write TRUE or FALSE

1. False 2. False 3. True 4. True

BOOK EXERCISE: (Pg. No. 108)

A. Tick (\checkmark) the correct answers:

1. (d) All of these 2.(b) Hydropower stations 3. (d) All of these

B. Write TRUE or FALSE

1. True 2. False 3. False 4. False

C. Identify the kind of force in each of the following cases.

1. Muscular force 2. Gravitational force 3. Force of friction

4. Muscular force 5. Gravitational force

Short Answer Type Questions:

Q1. What is meant by a force?

Ans. Force is a pull or push that makes some changes in an object.

Q2. What changes can a force make in an object?

Ans. 1) A force can make an object to move.

- 2) It can stop a moving object.
- 3) It can change the direction of a moving object.
- 4) It can change the shape of an object.

Q3. Why do we need energy? Name four different forms of energy.

Ans. We need energy to do different types of work. Four different forms of energy are:

1. Solar Energy 2. Wind Energy 3. Hydro Energy 4. Muscular Energy.

Q4. What are renewable sources of energy? Give three examples.

Ans. The sources of energy that cannot be finished are called renewable sources of energy. e.g. :- sun, wind and water.

Q5. What are fossil fuels? How were they formed?

Ans. Fuels such as coal, petrol, diesel and Compressed Natural Gas (CNG) are called fossil fuels. They were formed from the remains of dead plants and animals which got buried under the earth millions of years ago.

Q6. How do machines make our work easier and faster?

Ans. Machines make our work easier and faster by changing the direction of the applied force.

Q7. Name some simple machines used in your home.

Ans. Some simple machines used in our home are pulley, pliers, screw, screwdriver, bottle opener, scissors, nutcracker, etc.

Q8. Circle the odd one out and give reason for your choice:

a) Change of speed, Change of climate, Change of shape, Change of direction.

Ans. Change of climate: Change of climate is a natural process, rest are carried out by applying some force.

b. Solar energy, Heat Energy, Light Energy, Friction .

Ans. Friction: Friction is a kind of force, rest are different forms of energy.

c. Screw, Nutcracker, Scissors, Metre rod.

Ans. Metre rod: Metre rod is a device for measuring length, rest are simple machines.

Long Answer Type Questions:

Q1. What is the difference between renewable and non- renewable sources? Ans.

S. No.	Renewable Sources	Non-Renewable Sources
1	The resources that cannot be finished are called renewable	These sources are available in limited quantity and finished after some time are
	resources.	called non-renewable sources.
2	They are replenished by nature in a short period of time.	They cannot be replenished by nature.
3	They do not cause any pollution.	They cause pollution when they are used.
4	e.g. :- solar energy , wind energy,	e.g.:- fossil fuels, nuclear energy

ACTIVITY: Draw and label any two simple machines used in home.



L – 14: OUR SOLAR SYSTEM

CHECKPOINT: 1 (Pg. No. 112)

Fill in the blanks:

1. star 2. orbit 3. planet 4. dwarf

CHECKPOINT: 2 (Pg. No. 115)

Fill in the blanks:

1. axis 2. hemisphere 3. outer 4. tilted axis, revolution

BOOK EXERCISE: (Pg. No. 115)

A. Tick (✓) the correct answers:

1. (a) sun 2.(

2.(a) 8

3. (c) sun

4. (d) uncountable

5. (a) Milky Way

B. Write True or False:

1. False

2. True

3. False

4. False

C. Fill in the blanks:

1. galaxy

2. star

3. Saturn

4. equator

5. crust

D. Name of the following:

1. Star

2. Orbit

3. Planet

4. Earth

5. Pluto

Short Answer Type Questions:

Q1. What is a star?

Ans. A star is a huge ball of hot gases which gives out heat and light.

Q2. What do you mean by galaxy?

Ans. Galaxy is a huge group of stars that contains billions of stars.

Q3. Why is the earth a unique planet?

Ans. The earth is a unique planet because it is the only planet in the solar system which has air and water. So, life is possible only on it.

Q4. Name three different layers of earth.

Ans. Three different layers of earth are:-

- (a) Crust the outer layer
- (b) Mantle the middle layer
- (c) Core the innermost layer

Q5. What causes seasons on the earth? Name the four main seasons.

Ans. The tilted axis of the earth and the movement of earth around the sun, cause change in seasons on the earth. The four main seasons are spring, summer, autumn and winter.

Q6. The northern and southern hemispheres always have opposite seasons. Why?

Ans. The northern and southern hemispheres always have opposite seasons because the earth is tilted on its axis.

Q7. Why are the stars not seen during the daytime?

Ans. Stars are not seen during the daytime because of the bright glare of the sun.

Q8. Each season takes a year to come again. Why?

Ans. Seasons are caused due to the revolution of the earth around the sun. The earth takes one year to complete its one revolution. Therefore, each season takes a year to come again.

Long Answer Type Questions:

Q1. What are the differences between stars and planets?

Ans.

S. No.	Stars	Planets
1	They have their own light.	They do not have light of their own.
2	Stars twinkle in the sky.	Planets do not twinkle in the sky.
3	The size of stars is larger than planets.	The size of planets is smaller than the stars.
4	There are millions of stars in the galaxy.	There are total eight planets in our solar system.

Q2. Name the eight planets of our solar system with their features.

Ans. The eight planets of our solar system are :-

1. Mercury Closest to Sun 2. Venus **Brightest Planet** 3. Earth Blue planet 4. Mars Red planet Largest planet 5. Jupiter 6. Saturn Planet with rings 7. Uranus Coldest planet 8. Neptune : Farthest planet

ACTIVITY: Draw a diagram to show the layers of earth and label them.

