<b>Grade:</b> Four	Subject: Science		Term: 1 <sup>st</sup>		Time: 40min
Teacher's Name: _			Week: 2		Day: 1
Chap 1: Characteristics and Life Processes of		То	pic: The Biodi	ive	rsity in Life
Organisms					

#### **Students Learning Outcomes**

#### At the end of this period, the students will be able to:

 Recognize and appreciate diversity in life (both plants and animals) and identify ways to protect diversity.

#### **Resource Materials:**

Chalk/marker, white/blackboard, Science Textbook, Worksheet

#### **Warm-up Activities**

5mins

- Before beginning the lesson, ask students to say "Tasmiya."
- Make two groups of students. Call out a student from group 1 and ask him/her to write characteristics of flowering plants. Similarly call a student from group 2 and ask him/her to write features of non-flowering plants in the board. Appreciate students who performed outstanding.

#### **Teaching and Learning Activities:**

- Tell the student that they are going to learn the biodiversity of life.
- Tell students our world is full of animals and plants. They are present in great variety from tiny microorganisms to huge plants and animals. They are present in different shapes, sizes and have various characteristic features. This great variety of organisms is called biodiversity.
- Now write 'Importance of biodiversity' on the board.
- Biodiversity is essential for processes that support all life on Earth. It plays a
  major role in maintaining the balance of earth. In our surrounding,
  everything depends upon the biological diversity.
- Tell students all organisms are interconnected therefore they have different impacts on the ecosystem.
- We should protect this biodiversity, by following ways:
- All the varieties of plants, animals or livestock should be conserved.
- Environmental pollution should be reduced to the best possible extent.
- Hunting of wildlife should be prevented and banned effectively.
- Water should be used carefully and economically.
- Natural habitats of animals and plants should be protected by discouraging the cutting of trees.
- Deforestation should be strictly prohibited.

- People should be given awareness to plant more and more trees.
- Environmental laws should be enforced effectively.

Show students flash cards to protect biodiversity.

#### **Activities:**

• Ask students how the diversity of life is affected by human activities? Discuss it with the class.

Review: 3mins

Recall the importance of biodiversity.

Evaluation: 5mins

To evaluate the understanding of students, ask them:

- What is biodiversity?
- What are the impacts of biodiversity on ecosystem?

Homework: 2mins

Solve the given worksheet.

Q:	Explain the importance of diversity of life and suggest ways to protect it.
-	

<b>Grade:</b> Four	Subject: Science		Term: 1 <sup>st</sup>	Time: 40min
Teacher's Name:			Week: 2	Day: 2
<b>Chap 1:</b> Characteri	stics and Life Processes	Top	ic: Maior body	v parts and vital

**Chap 1:** Characteristics and Life Processes of Organisms

**Topic:** Major body parts and vital organs of Animals and their functions.

#### **Students Learning Outcomes**

#### At the end of this period, the students will be able to:

- Identify major parts/organs in animals (teeth, bones, lungs, heart, stomach, muscles and brain).
- Relate the parts/organs to their functions (e.g., teeth break down food, bones support the body, lungs take in air, the heart circulates blood, the stomach helps to digest food, muscles move the body).

#### **Resource Materials:**

Chalk/marker, white/blackboard, Science Textbook

#### **Warm-up Activities**

5mins

- Before beginning the lesson, ask students to say "Tasmiya."
- Call out students in front of the class, and ask them:
- Describe ways to protect biodiversity.
- Tell the importance of biodiversity.
- Take their responses and appreciate them.

## **Teaching and Learning Activities:**

- Tell students Humans may look different, but inside, they share similar characteristics. Tell them an organ is a collection of tissues, that performs a particular function. These organs work together. Although each organ has specific role, which contribute to overall wellbeing of living body.
- Ask students to work in groups and make a drawing of what they know about inside of human body. For this provide them an outline of human body on sheet.
- After doing this, ask students about external and internal organs.
- Engage students with the topic 'Brain' by asking them to share what they know about human brain.
- After discussion have students share their points.
- Now ask students: Why are our brains like computer? Which bone protects the brain?
- Tell students that brain is complex organ that is well-developed and controls all the body functions, and activities. It is protected in skull.

- Ask students what actually brain controls?
- Well-developed brain controls all the body functions.
- Tell them that our emotions touch, hunger, breathing, vision all features are controlled by brain.

#### **Activities:**

- Paste the picture of brain in your scrapbook and tell:
- Does human brain sleep?

Review: 3mins

Recall the lesson the body of animal is made up of many organs.

Evaluation: 5mins

To evaluate the understanding of students, ask them:

- What are external and internal organs.
- What is the role of brain?

Homework: 2mins

Revise the lesson.

<b>Grade:</b> Four	Subject: Science		Term: 1 <sup>st</sup>	Time: 40min
Teacher's Name: _			Week: 2	<b>Day:</b> 3
Chap 1: Character	istics and Life Processes of	Topi	<b>c:</b> Major Bod	y Parts and Vital
Organisms		Orga	ns	

#### **Students Learning Outcomes**

#### At the end of this period, the students will be able to:

- Identify major parts/organs in animals (teeth, bones, lungs, heart, stomach, muscles and brain).
- Relate the parts/organs to their functions (e.g., teeth break down food, bones support the body, lungs take in air, the heart circulates blood, the stomach helps to digest food, muscles move the body).

#### **Resource Materials:**

Chalk/marker, white/blackboard, Science Textbook, Worksheet

#### **Warm-up Activities**

5mins

- Before beginning the lesson, ask students to say "Tasmiya."
- Ask them: What do you know about the brain? Take their responses.

#### **Teaching and Learning Activities:**

25mins

- Write 'Teeth' on the board.
- Tell them teeth are hard bony structures in jaws. These are used to cut, tear, chew and grind food. Teeth are present in all vertebrates except birds.
   Vertebrates have different types of teeth.
- Mammals' teeth are divided into four types: incisors, canines, premolars and molars. They perform different functions.
- Now draw different types of teeth on board and tell students about them.
- Incisors: Biting and cutting food
- Canines: Piercing and tearing food.
- **Premolars:** Chewing and grinding food.
- **Molars:** Chewing and grinding food.
- Show students a flashcard of different types of teeth.
- Ask students: What organ of body, which allow all of us to breathe.
- Tell them, all vertebrates have lungs for breathing except fish.
- Ask them: Do they know, how fish respire?
- Tell them fish respire through gills.
- Gills are pouch-packed structures, connected with throat having open slits.

#### **Activities:**

• Paste the pictures of types of teeth in your scrap book.

Review:	3mins
Recall the main points of teeth, to the students.	
Evaluation:	5mins
To evaluate the understanding of students, ask them:	
<ul><li>What are four types of human teeth?</li></ul>	
<ul><li>What is the role of lungs in vertebrates?</li></ul>	

2mins

Solve the given worksheet.

Homework:

Write the names of different types of teeth, explain their function also.

<b>Grade:</b> Four	Subject: Science		Term: 1 <sup>st</sup>	Time: 40min
Teacher's Name:			Week: 2	Day: 4
Chap 1: Characteristics and Life Processes of		Topi	c: Major Body	y Parts and Vital
Organisms		Orga	ins	

#### **Students Learning Outcomes**

#### At the end of this period, the students will be able to:

- Identify major parts/organs in animals (teeth, bones, lungs, heart, stomach, muscles, brain).
- Relate the parts/organs to their functions (e.g., teeth break down food, bones support the body, lungs take in air, the heart circulates blood, the stomach helps to digest food, muscles move the body).

#### **Resource Materials:**

Chalk/marker, white-/blackboard, Flashcards, Science Textbook, Worksheet

#### **Warm-up Activities**

5mins

- Before beginning the lesson, ask students to say "Tasmiya."
- Ask them: What do you know about the lungs? Wait for their responses.

#### **Teaching and Learning Activities:**

- Have students stand and show them how to take their pulses.
- Note the pulse rate for one minute and record.
- Now have them jog and jump in their place for 30 seconds, and take again pulse recording.
- Ask them, to tell the difference between their pulse before and after the activity.
- Now tell students heart is a muscular organ for pumping and circulating blood. It is the most important organ of our body.
- It has four chambers in humans and three in reptiles and amphibians.
- Fish have two chambered hearts for the regulation of blood.
- It connected to the whole body through complex system of arteries, veins and capillaries.
- Tell students today they are going to learn about vital body organ i.e., stomach.
- Now ask students: Where do their food go, after swallowing?
- Take their responses, and appreciate if they give correct answer.
- Tell students it is bag-like muscular organ on the left-side of abdomen.
- Tell the function of stomach to the students.
- Show the flashcard of stomach to the students and paste it on the board.

• Tell students, the function of stomach is storge of food and digest it by breaking down food into small particles.

#### **Activity:**

• Provide students with worksheets. Help them to solve it. Help them if needed.

Review: 3mins

Recall the lesson.

Evaluation: 5mins

To evaluate the understanding of students, ask them:

- What is the role of the heart in the body?
- How many times heart circulates blood throughout the day?
- What is the role of stomach?

Homework: 2mins

Learn the lesson and solve the given worksheet.

# Q1. Identify the following hearts of different vertebrates.

<b>Grade:</b> Four	Subject: Science		Term: 1 <sup>st</sup>	Time: 40min
Teacher's Name: _			Week: 2	<b>Day:</b> 5
Chap 1: Character	istics and Life Processes of	Topi	c: Major Body	/ Parts and Vital
Organisms		Orga	ans	

#### **Students Learning Outcomes**

#### At the end of this period, the students will be able to:

- Identify major parts/organs in animals (teeth, bones, lungs, heart, stomach, muscles and brain).
- Relate the parts/organs to their functions (e.g., teeth break down food, bones support the body, lungs take in air, the heart circulates blood, the stomach helps to digest food, muscles move the body).

#### **Resource Materials:**

Chalk/marker, white/blackboard, Science Textbook

#### **Warm-up Activities**

5mins

- Before beginning the lesson, ask students to say "Tasmiya."
- Ask them: What do you know about stomach? Why is it an important organ?
   Wait for their responses. Appreciate them for their correct answer.

#### **Teaching and Learning Activities:**

- Tell students they are going to learn about another body parts, i.e., muscles and bones.
- Tell them that muscles are the flexible part of the body.
- Ask students to touch their arms and feel their muscles. Ask them to stretch and fold their arms and feel the difference in muscles. Let them respond.
- Tell them three different types of muscles are found in vertebrates.
- Write the names of types of muscles on the board. Tell their names to students.
- Show the flashcards of different types of muscles.
- Tell students, muscles are soft and can contract.
- Ask them, how do we sit, stand, work or jump?
- Tell them, with the help of movements of muscles, we can do all these tasks.
- Write the topic name of 'Bones' on the board.
- Now ask students how they would look if they did not have bones in their bodies. Explain to them we would be big globs of skin and organs.
- Tell them, bones are arranged into a framework called skeleton. The skeleton gives the body a proper shape: Now ask and discuss with students. How many bones are we born with?

• How many bones do we have as an adult?

#### **Activity:**

• Make the chart of the functions of the muscles.

Review:	3mins
Recall the main parts of muscles.	

**Evaluation:** 5mins

To evaluate the understanding of students, ask them:

- What are muscles?
- What is the function of the muscles and bones?

Homework: 2mins

Revise the classwork and solve worksheet.

> Label the human Skeleton.

