ANIMALS AND THEIR HABITATS

A. Checking on concepts:
a. Match the pictures with the correct words:

- shell
- scales
- hair
- fur
- feathers

b. Circle the animals which do not belong to the following habitat:

B. Recalling facts:
1. Answer the following questions:

Q.a: What is meant by a habitat?
Ans: Habitat is a place from where a living thing gets everything that it needs to live.
Q.b: What helps animals to live in their habitat?
Ans: The body parts of animals helps them in eating, moving, making homes and protection. These body parts help them to live in their habitats.

Q.c: In what ways does a bird uses its beak?
Ans: Birds use their beaks to carry food to eat and twigs to make nests.

C. Applying your learning:
Activity
a. Collect some or all of the following . . .
   (your teacher may provide them)
   i) a caged bird like pigeon, parrot, sparrow or an Australian parrot.
   ii) some fresh fish from the fish market
   iii) snails or their shells
b. Observe each animal and try to touch them.
c. Find out the habitat of each animal.
d. Discuss with your class mates and teacher about the body parts of these animals.
e. Record your observations on the following chart:

<table>
<thead>
<tr>
<th>Name of the Animal</th>
<th>Habitat</th>
<th>Body parts that help them to live in their habitat.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Eating Habits of Animals

A. Checking on concepts:
   
   a. Circle two things that each animal eats.

   ![Illustrations of animals and their food]

B. Recalling facts:
   Answer the following questions:

   Q.a: Where do animals find their food?
   Ans: Animals find their food in their habitat.

   Q.b: What are herbivores?
   Ans: Animals that eat plants are called herbivores. E.g: panda, giraffe etc.

   Q.c: What are omnivores?
   Ans: Animals that eat both plants and other animals are called omnivores. E.g: bear

D. Complete the following chart:

<table>
<thead>
<tr>
<th></th>
<th>Herbivores</th>
<th>Carnivores</th>
<th>Omnivores</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Elephant</td>
<td>Tiger</td>
<td>Bear</td>
</tr>
<tr>
<td>2.</td>
<td>Panda</td>
<td>Lion</td>
<td>Rooster</td>
</tr>
<tr>
<td>3.</td>
<td>Giraffe</td>
<td>Alligator</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Rabbit</td>
<td>Frog</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### What Do Parts Of a Plant Do?

#### A. Complete the following:

<table>
<thead>
<tr>
<th>Parts of a Plant</th>
<th>What it does for a plant</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Flowers</strong></td>
<td>Attract insects for pollination.</td>
</tr>
<tr>
<td></td>
<td>Helps plant bear fruits and seeds.</td>
</tr>
<tr>
<td><strong>Stem</strong></td>
<td>Carries water and food to other parts of the plant.</td>
</tr>
<tr>
<td><strong>Roots</strong></td>
<td>Holds the plant in place. Stores food and absorbs water.</td>
</tr>
<tr>
<td><strong>Seed</strong></td>
<td>New plants grow from seeds.</td>
</tr>
<tr>
<td><strong>Leaves</strong></td>
<td>Makes food for the plant.</td>
</tr>
</tbody>
</table>

#### B. Recalling facts:

Answer the following questions:

Q.a: Where do animals find their food?  
Ans: Stem and roots are the parts of a plant through which water moves.

Q.b: Name any two plants that have leaves like needles.  
Ans: Pine and are the two plants having leaves like needles.

#### C. Applying your learning:

**Think!**

Q: What would happen if plants had no leaves?  
Ans: If plants had no leaves then they would not be able to make their food and so would die.
Fruits and Vegetables

A. Checking on concepts:

1. Fill in the blanks using the given words.
   
   seeds  juicy  leaves  fruits

   a. Fruits grow from flowers.
   b. Oranges are juicy fruits.
   c. Cabbage and lettuce grow from leaves.
   d. Inside fruits seeds are present.

2. Which of the following fruits are vegetables:
   Gourds, tomatoes, cucumbers, brinjals and lady fingers.

3. Draw lines to match the pictures with the correct words

   - Fleshy Fruits
   - Juicy Fruits
   - Vegetables
   - Flowers
   - Seeds

B. Applying your learning:

<table>
<thead>
<tr>
<th>Names of fruits/ Vegetables</th>
<th>One seed</th>
<th>Few seeds</th>
<th>Many seeds</th>
</tr>
</thead>
<tbody>
<tr>
<td>apple</td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>watermelon</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>peach</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>gourd</td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>lady finger</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>
Seeds

A. Checking on ideas:

1. Look at the following seeds:
   How many seed leaves can you see in each of them.

   - two seed leaves
   - one seed leaf
   - one seed leaf

2. Below is a seed of bean.
   Write its different parts using the given words.
   Seed coat, seed leaves, tiny hole, embryo.

   ![Seed diagram with parts labeled: Embryo, Tiny hole, Seed coat, Seed leaves]

B. Recalling facts:

Answer the following questions:

Q.a: Which part of the plant grows into a seed?
Ans: Flowers of a plant grow into a seed.

Q.b: What is an embryo?
Ans: The tiny plant inside the seed is called an embryo.

Q.c: Complete the following grid.

<table>
<thead>
<tr>
<th>Parts of a seed</th>
<th>Its function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seed coat</td>
<td>provides protection to the seed.</td>
</tr>
<tr>
<td>Tiny holes</td>
<td>passage for water and air to go in.</td>
</tr>
<tr>
<td>Seed leaves</td>
<td>store food for the growing plant.</td>
</tr>
<tr>
<td>Embryo</td>
<td>baby plant in the seed.</td>
</tr>
</tbody>
</table>
PLANTS AND ANIMALS NEED EACH OTHER

A. Checking on ideas:

Ans: Bird is eating berries, which is a fruit.
    Rabbit is eating carrot, which is a root.
    Goat is eating grass, which is a leaf.
    Elephant is eating sugar cane, which is a stem.

B. Recalling facts:

1. Answer the following questions:

Q.a: How do animals use plants?
Ans: Animals use plants to make their homes. They also use plants as food.

Q.b: How do birds help plants grow?
Ans: Birds eat the fruits from a plant and the seed that falls on the ground grows into a new plant. Birds also eat insects that might be harmful for plants.

Q.c: How do plants use animals?
Ans: Animal waste makes the soil good for plant growth. Also, birds eat insects that could be harmful to the plants and when the birds eat the fruits, seeds fall on the ground which grows into a new plant.

2. Fill in the blanks from the words given below.

a. Many animals use plants for making their homes.
b. Birds eat insects that are harmful to the plants.
c. Plants and animals are useful for each other.
d. We use different plants as our food.
A. Answer the following questions:

Q.a: Define the nervous system.
Ans: The nervous system controls all the actions of a human body. It also controls our senses. Brain, spinal cord and nerves are parts of a nervous system.

Q.b: What does the digestive system do?
Ans: The digestive system helps us in the digestion of food and as a result of this digestion we get the energy we need and the wastes are expelled from the body.

Q.c: How do we breathe?
Ans: We breathe with the help of our respiratory system, which consists of mouth, nose, windpipe and a pair of lungs.

B. Write the name of the system against each organ.

<table>
<thead>
<tr>
<th>Name of Organ</th>
<th>System</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Brain</td>
<td>Nervous system</td>
</tr>
<tr>
<td>2. Heart</td>
<td>Circulatory system</td>
</tr>
<tr>
<td>3. Lungs</td>
<td>Respiratory system</td>
</tr>
<tr>
<td>4. Stomach</td>
<td>Digestive system</td>
</tr>
<tr>
<td>5. Arteries</td>
<td>Circulatory system</td>
</tr>
<tr>
<td>6. Intestine</td>
<td>Digestive system</td>
</tr>
<tr>
<td>7. Mouth</td>
<td>Digestive system</td>
</tr>
<tr>
<td>8. Nose</td>
<td>Respiratory system</td>
</tr>
</tbody>
</table>

C. Fill in the blanks.

1. There are total **11** systems in a human body.
2. The **nervous** system controls all the actions of our body.
3. The **digestive** system digests our food.
4. The spinal cord is a part of the **nervous** system.
5. A system consists of **organs** that work together.
NATURAL AND MAN-MADE MATERIALS

A. Checking on ideas:

1. Look at the following pictures carefully:
   Answer starts from left to right
   1-rubber  6-glass
   2-wool    7-steel
   3-cotton  8-plastic
   4-wood    9-fur
   5-silk    10-leather

2. Look at the following pictures. Write the names of any two materials used in making them.

   leather & steel
   steel & wood
   wood & cane

B. Recalling facts:

Answer the following questions:

Q.a: What are man-made materials?
Ans: Materials made by combining two or more natural materials are called man-made materials.

Q.b: Give the names of any four man-made materials and things made from them.
Ans: Steel, cement, plastic and nylon are man-made materials.
    Spoons are made from steel.
    Bricks are made from cement.
    Plates and glasses are made from plastic.
    Nylon threads and socks are made from nylon.

Q.c: Which type of materials are called natural?
Ans: Materials that come from plants and animals are called natural.

Q.d: Give three ways in which oil is used in our daily life.
Ans: The ways in which oil is used in our daily life are:
    1. cooking
    2. lubricating machines and
    3. massaging of hair and skin.
2. Choose the best answer:
   a. Natural materials that come from the ground are called (minerals / rocks).
   b. Petrol is a (man-made/ natural) material.
   c. Clay and Chalk are used to make (rubber/ cement).
   d. Your book is made from (man-made/ natural) material.

C. Applying your learning:

1. What you wear!
   - Think about the clothes you wear everyday.
   - Which of them are usually made of cotton, silk and wool?
   - Which of them are made of leather?
   - Write your findings on your copy.
   - Draw or paste pictures if you have.
**Wind**

**A. Checking on ideas:**

1. Use the following words to label the pictures:

   ![Wind](image1)
   ![No wind](image2)

2. Fill in the blanks using the given words:

   wind, gale, breeze, pushes

   a. We feel air when it **pushes** against us.
   b. Moving air is called **wind**.
   c. Very strong wind is called **gale**.
   d. Gentle wind is called **breeze**.

**B. Recalling facts:**

1. Answer the following questions:

   Q.a: In what ways does the wind helps people?
   Ans: Wind helps people by:
   1. providing energy to move things.
   2. growing of plants through pollination.
   3. drying up things

   Q.b: Write any three harmful effects of wind.
   Ans: When wind becomes strong it can:
   1. tear down trees
   2. destroy buildings
   3. cause storms.
Sources of Water

A. Checking on concepts:
1. Observe the picture:
   a. Do you see any water in the picture? If yes, 
   b. List why you think so?
   Ans. Yes there is water in the picture. The picture shows a lot of snow is frozen water.

2. Read the following sentences.
   Write 'F' if the sentence describes the fresh water and 'S' if salt water as described.
   a. Water in most lakes and rivers F
   b. Water in oceans S
   c. Water in wells F
   d. Water used for drinking by people F
   e. Water in ice and snow F
   f. Most of the water in the world. S

B. Recalling facts:
1. Answer the following questions:
   Q.a: How much of the surface of earth is covered with water?
   Ans: Three fourth of our earth’s surface is covered by water.

   Q.b: How is sea water different from river and lake water?
   Ans: Sea water is salty and undrinkable, while the water in rivers is fresh and drinkable and does not contain a lot of salt.

   Q.c: Why salt water is not good for drinking?
   Ans: Sea water is too salty and drinking this salt water can be dangerous for health.

   Q.d: What is ice and where can we find it?
   Ans: Solid water is called ice and it can be found on mountain tops, south poles, snow and high altitudes.
A. Checking on concepts:
1. Fill in the blanks using the words given in the box.
   fuel, rubbing, air, burning, heat, object
   a. Wood, oil and gas are fuel.
   b. When a fuel burns, it gives off heat.
   c. Heat moves from one object to another.
   d. Heat reaches from its source to us through air.
   e. Rubbing and burning produce heat.

2. Observe the following pictures:
   Q. In which picture will the boy feel more heat? Give reason
   Ans. The boy will feel more heat in the first picture, because he is standing closer to the fire which is a heat source.

B. Recalling facts:
Answer the following questions:

Q.a: How can we produce heat ourselves?
Ans: Heat can be produced by rubbing two things together very fast. So, by rubbing our hands together we can produce heat our selves.

Q.b: Which fuels can be used to produce heat?
Ans: Wood, coal, oil and gas are some fuels that are used to produce heat.

C. Applying your learning:
Heat causes!

<table>
<thead>
<tr>
<th>Material</th>
<th>What happened to it under the sun?</th>
</tr>
</thead>
<tbody>
<tr>
<td>butter</td>
<td>it becomes soft</td>
</tr>
<tr>
<td>water</td>
<td>it evaporates</td>
</tr>
<tr>
<td>ice</td>
<td>it melts</td>
</tr>
<tr>
<td>wet handkerchief</td>
<td>it dries up</td>
</tr>
<tr>
<td>candle wax</td>
<td>it becomes soft</td>
</tr>
</tbody>
</table>
Light

A. Checking on concepts:
1. Complete the following:
   a. Light can pass through transparent objects.
   
   b. Which picture shows that light passes through some materials?
      ![Options](image)
      - Check mark is next to picture of plant in sunlight.

   c. Which of the following would stop the light?
      ![Options](image)
      - Check mark is next to picture of glass.

B. Recalling facts:
Answer the following questions:

Q.a: How does light travel?
Ans: Light travels in a straight line.

Q.b: Why don't you see light traveling?
Ans: We don't see light traveling because it moves very fast.

Q.c: What is an opaque object?
Ans: An opaque object is that through which light cannot pass through.

Q.d: Why are you able to see through a transparent object?
Ans: Light easily passes through transparent objects that is why we can see through transparent objects.

D. True or False:
   a. Pencils, clothes and trees gives off light. **F**
   b. Light rays always travel in straight lines. **T**
   c. Light can pass through opaque objects. **F**
   d. Glass is a transparent object. **T**
   e. Shadows are formed when the light is blocked. **T**
A. Checking on concepts:

2. Look at the following pictures.
   Identify the pictures that show the morning shadow, the afternoon shadow and the evening shadow.

   ![Pictures of children and shadows]

   - Afternoon shadow
   - Morning shadow
   - Evening shadow

B. Recalling facts:

1. Answer the following questions:

   Q.a: What type of objects make shadows?
   Ans: Opaque objects make shadows as they block the light.

   Q.b: In which direction are the shadows made?
   Ans: Shadows are made in the opposite direction from the source of light.
How are Sounds Made?

A. Checking on concepts:

1. Look at the following pictures.

   All these things are making a sound.
   Write "H" on the things that are making a high sound.
   Write "L" on the things that are making a low sound.

   ![Images showing different activities making sounds]

   L   H   L   H

2. Put your hand on your throat.

   Sing your favourite song. What do you feel on your hands.
   Ans: We feel vibrations on our hands.

B. Recalling facts:

1. Fill in the blanks:
   a. Objects must **vibrate** to make a sound.
   b. When objects vibrate too fast they make **loud** sound.
   c. Low sound is made when things vibrate **slowly**.

2. Answer the following questions:

   Q.a: When is a sound made?
   Ans: When an object or a part of it vibrates, it produces sound.

   Q.b: What does an object do when it vibrates?
   Ans: Objects vibrate when they move quickly back and forth. These vibrations make sounds.
The Sun

A. Checking on concepts:

1. Fill in the blanks.
   
a. The sun looks small because it is **far away**.
   b. The sun is a huge ball of **burning** gases.
   c. The sun is very **important** to our earth.

2. Circle the one that is bigger.
   
   a. Earth  
   b. Sun

3. Look at the two circles.
   One is earth, one is the sun. Write the names in the boxes.

   ![Sun](image1)  
   ![Earth](image2)

B. Recalling facts:

Answer the following questions:

Q.a: What are stars?
Ans: Star is an object in the sky that gives off light.

Q.b: How is the sun like to the stars you see at night?
Ans: Sun is a big ball of glowing gases like the other stars.

Q.c: Why do the sun and the stars look small?
Ans: The sun and stars look small because they are very far away from the earth.

Q.d: How does the air above land and water become warm?
Ans: The heat of the sun warms the earth. The warm earth then heats the air around and makes it warm.
The Moon

A. Checking on concepts:
1. Which one is a full moon?
   Ans: c is the full moon.
2. How does the moon look close up?

B. Recalling concepts:
Answer these questions:

Q.a: How does the moon shine?
   Ans: The moon does not have its own light, it shines when the sunlight fall on it.

Q.b: Why do the spots on the moon look small from the earth?
   Ans: The spots on the moon look small, because moon is very far away from earth.

Q.c: Does moon has its own light?
   Ans: No, instead moon reflects sunlight.

C. Applying your learning:
Think!

a. How is the moon different from the earth?
   Ans: The moon is different from the earth in many ways. Some of these are:
   1. it is smaller than the earth
   2. it revolves around the earth
   3. it does not have air
   4. it does not have water.
   5. it doesn’t support life.

b. Why do we see different shapes of the moon?
   Ans: The difference in the shapes of the moon depends on the sunlight falling on it.

c. How far is the moon from the earth?
   Ans: The distance between earth and moon is 384403 kms.
THE SUN AND
THE DIRECTIONS

A. Checking on concepts:
1. Look at the scare crow in the picture.
   Write **North, South, East and West** to mark the directions.

2. See the picture and then fill in the blanks.
   a. In the west there are **windmills**.
   b. In the east there are **houses**.
   c. In the north there are **penguins**.
   d. In the south there are **trees**.

B. Recalling facts:
Answer these questions:

Q.a: How many directions are there?
Ans: There are four directions.

Q.b: Name the four directions
Ans: The four directions are North, South, East and West.

Q.c: What helps us to find the directions?
Ans: The sun helps us to find the direction.

Q.d: From where does the sun rises and sets in?
Ans: The sun rises in the east and sets in the west.
A. Checking on concepts:

1. Use one word to describe each picture and write it in the given box.

   ![Lake](image1) ![Plain](image2) ![River](image3) ![Desert](image4) ![Mountain](image5)

2. Circle the correct answer.

   a. Which shows the earth from far away?
   
   ![Earth](image6) ![Hills](image7) ![Map](image8)

   b. What covers most of the earth?
   
   ![Forest](image9) ![Mountains](image10) ![Desert](image11)

B. Recalling concepts:

Answer these questions:

Q.a: What covers the land part of the earth?
Ans: The land part of the earth is covered with deserts, plains, mountains, valleys, rivers and lakes.

Q.b: Describe 'lake', 'mountain' and 'desert'.
Ans: Lake is a body of water with land all around it. Mountain is a high point of land and desert is a dry and sandy place where little life survives.
C. Applying your learning:
Research! The land of Pakistan.

- Name of:
  - Any two famous lakes in Pakistan. **Jheel Saif ul Muluk**  **Kalri Lake**
  - One Famous mountain in Pakistan. **K-2**
  - One Valley of Pakistan. **Kashmir**
  - Two rivers in Pakistan. **River Jhelum** and **River Indus**.
A. Checking on concepts:
1. Read the sentences carefully then write the correct letter in the right boxes.
   a. This warms the earth.
   b. The children are ready for winter weather.
   c. This shows the autumn season.
   d. It is spring time.

2. Match each word to a season:

   Warm       Hot       Cool     Cold

   Autumn  Winter  Spring  Summer

B. Recalling concepts:
Answer these questions:

Q.a: What is a season?
Ans: A season is a time of year. There are four seasons in a year Spring, Summer, Autumn and Winter.

Q.b: How do you know that weather is changed?
Ans: We know that the weather has changed when a new season comes.

Q.c: How many times does the seasons change in a year?
Ans: Seasons change four times a year.

Q.d: What is a monsoon season?
Ans: Monsoon is a season of plenty of rainfall.
2. Circle the true and false for each statement.

<table>
<thead>
<tr>
<th>Statement</th>
<th>True or False</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. There are five seasons in a year.</td>
<td>False</td>
</tr>
<tr>
<td>b. In winter we wear light clothes.</td>
<td>False</td>
</tr>
<tr>
<td>c. Spring is the season of flowers.</td>
<td>True</td>
</tr>
<tr>
<td>d. During monsoon there is no rain.</td>
<td>False</td>
</tr>
<tr>
<td>e. Autumn comes after summer.</td>
<td>True</td>
</tr>
<tr>
<td>f. Summer is the hottest time of the year.</td>
<td>True</td>
</tr>
</tbody>
</table>