Chapter 1

This Chapter deals with the study of the surroundings and the things that make it up: living things, different bodies of water and landforms.

Lesson 1: The Surroundings
Activity 1: Different things around you

Objective

Naming different things around you.

Material

Magic square chart

Procedure

1. Study the Magic Square Chart.
2. Think about your surroundings.
3. Write your ideas inside each square.
Then, write them in your notebook.

a. What makes your surroundings a nice place to live in?

b. Why should you keep your surroundings clean and orderly?

c. How can you keep your community a safe place to live in?

d. Where do you live? Can you name things around your house?
Activity 2: Take a Tour Around

Objective
Describe things in the surroundings.

Material
None (just go around, in and out of the classroom)

Procedure
1. Fall in line and go outside the room quietly.

2. Follow your teacher as she walks you around the school.

3. Observe the places carefully as you go through them.

Describe the place you observed. Write your answers in your notebook following the table below:

<table>
<thead>
<tr>
<th>School's surroundings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Place Visited</td>
</tr>
<tr>
<td>Place #1.</td>
</tr>
<tr>
<td>Place #2.</td>
</tr>
<tr>
<td>Place #3</td>
</tr>
<tr>
<td>Place #4.</td>
</tr>
</tbody>
</table>

Questions
1. What were the places you visited?
2. What did you see in these places? Describe what you saw.
3. Are these things important in an environment of the school? of the community? Why?
4. Why should you keep our surroundings clean and orderly?
5. How do you keep your school environment a safe place to study?

Activity 3: A Walk in the Garden

Objectives
1. Name things found in the garden.
2. Group things as to living or non-living thing.

Materials
Paper   Pencil and crayons   Magnifying lens (if available)

Procedure
1. Take a walk in the school garden e.g. flower garden, vegetable garden, herbal garden. Pair with a friend.
2. Observe the following measure while in the garden:
   a. Avoid touching plants. Some may have spines or thorns.
   b. Refrain from smelling different flowers. It might cause discomfort or cause allergy.
   c. Work with your buddy. Stay together at all times.
3. Observe the things that you see around. You can use the magnifying lens to have a closer look at small objects.
4. Answer the guide questions in your notebook
Questions
1. What are the living and non-living things in the garden?
   Living things:  Non – living things:
2. How many kinds of plants did you see? What are they?
3. How many kinds of animals did you see? What are they?
4. Complete the table below.

<table>
<thead>
<tr>
<th>Living Things</th>
<th>Non Living Things</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5. Write in one or two sentences what things can be seen in a garden in your notebook.
Activity 4: Bodies of Water in your Community

Objectives
1. Describe the bodies of water.
2. Infer that plants and animals are present around and in the bodies of water.

Materials
- photocopy of two bodies of water
- crayon or water color, clear tape, cardboard, pair of scissors

Procedure
1. Group yourselves into 5. Have a photocopy of the bodies of water.
2. Using crayons or water color, color the illustrations and cut the paper following the broken lines.
3. Tape each cut out bodies of water onto a sheet of poster board using only a small piece of clear tape along the top of each card (so the card flips upwards) and answer the questions. Do this on your notebook.
1. Do you have a similar body of water in your community? Describe it.
2. Do you use the water for a particular purpose? Describe the use.
3. Is the body of water important?
Activity 5: The Landforms

Objectives
1. Describe landforms.
2. Make a poster board presentation.

Materials
landform pictures, pair of scissors,
glue or paste, crayons, pencil,

Procedure
1. Group yourselves into 5. Have a photocopy of the landforms.
2. Match a landform picture with its description in your notebook. Cut out the landform pictures. Glue each landform next to its description. Make a poster board for this activity.
2. Are there landforms in your community? Pick out a picture of a land form from the list which is similar to where you live. Tell something about your community. Do this in your notebook.

3. Are landforms important? Why?

Chapter 2: Weather

Chapter 2 on weather deals with types of weather, appearance of the sky, weather changes and its effects to people, animals and plants. It also deals with precautionary measures on different weather conditions and preparation of improvised weather instrument.

Lesson 1: The Weather
Activity 1: “The Weather Watcher”

Objectives
1. Describe the weather for the day.
2. Draw the clouds seen in the sky.
3. Describe the appearance of the clouds.

Materials
weather watcher card coloring markers, crayons, pens
KWL Chart,

Procedure
2. Look around you and at the sky above. Observe the day’s weather. Write the following in your notebook.
   a. Is it sunny?
b. Is it rainy?
c. Is it windy?
d. Is it stormy?

3. Observe the sky for five minutes.
   **CAUTION:** DO NOT LOOK DIRECTLY AT THE SUN. THE SUN’S RAYS CAN HARM YOUR EYES.

4. Draw some of the objects that you see in the sky. Use coloring pencils or pens for your drawing. Do this in your notebook.

5. Complete the table below. Do this in your notebook.

<table>
<thead>
<tr>
<th>Shape of the cloud</th>
<th>Color of the cloud</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6. Describe the clouds based on what you wrote on the table. Write your answer in your notebook.

**Activity 2: Types of Clouds**

**Objectives**
1. Describe the different clouds in the sky.
2. Show a four-day weather condition and the type of cloud each day.

**Materials**
- weather chart, coloring pencils, or pens, cotton balls, glitters for lighting and rain paper and pair of scissors glue
**Procedure**

1. Observe the clouds in the sky every morning and every afternoon for four consecutive days. Record your observations in your notebook.

2. On the first day, draw the shape of the cloud in column 1 of Table 1. Then, make a model of this cloud using cotton balls to represent the type of cloud you observed. Paste this model under your drawing. You can improve your model by using glue and glitters. The glitters will represent rain and lightning.

3. Repeat Step No. 2 for Tuesday until Thursday. You should have a complete table on Thursday, the fourth day.

   **Table 1. Cloud observed each day for four days**

<table>
<thead>
<tr>
<th>MONDAY</th>
<th>TUESDAY</th>
<th>WEDNESDAY</th>
<th>THURSDAY</th>
</tr>
</thead>
</table>

   - Describe the shape of the clouds each day every morning and afternoon.
     - Monday _____________________________________
     - Tuesday _____________________________________
     - Wednesday _________________________________
     - Thursday ____________________________________

**Questions**

1. Does the cloud change every day?
2. Write one or two sentences about what you have learned in this activity.

   Use the guide below for the types of clouds.
i. Cirrus clouds are thin and wispy

ii. Cumulus clouds are white and puffy

Stratus clouds are low, flat and gray
Question
What is the weather today?

Activity 3: My Improvised Weather Instruments

Objectives
1. Make a simple weather instrument.
2. Describe the uses of the instrument.

Materials
Set A: wooden sticks, strip of paper, glue
Set B: cardboard, wooden sticks, glue

Procedure
For Set A. Making a Wind Vane
1. Cut a strip of paper longer than the length of the stick.
2. Glue strip of paper to one end of the stick.
3. Place your improvised weather tool in an open space.
4. Observe how it works. Draw the weather instrument in your notebook.
5. Show to the class how your instrument works.

For Set B. Making another Model of a Wind Vane
6. Get a thick cardboard.
7. Cut two arrows of the same size. Make the tails bigger than the arrow heads.
8. Put a stick between two arrows. Staple or paste them together.
9. Place your improvised instrument at the top of a pole.
10. Draw the weather tool in your notebook.
11. Show to the class how your instrument works.

FOR SET B Speed and direction of the wind

1. Place your improvised wind vane on top of a pole or elevated area (location A).
2. Observe how the strip of paper moves every 5 minutes for 15 minutes.
3. Transfer your wind vane to another location. Call it location 2. Observe again.
4. Put a check mark in the table 2 below for your observations.
Table 2. Movement and direction of the wind

<table>
<thead>
<tr>
<th>Location A</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>After 5 min.</td>
</tr>
<tr>
<td></td>
<td>After 10 min.</td>
</tr>
<tr>
<td></td>
<td>After 15 min.</td>
</tr>
<tr>
<td>Strip of paper does not move</td>
<td></td>
</tr>
<tr>
<td>Strip of paper sways</td>
<td></td>
</tr>
<tr>
<td>Strip of paper makes sound</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Location B</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>After 5 min.</td>
</tr>
<tr>
<td></td>
<td>After 10 min.</td>
</tr>
<tr>
<td></td>
<td>After 15 min.</td>
</tr>
<tr>
<td>Strip of paper does not move</td>
<td></td>
</tr>
<tr>
<td>Strip of paper sways</td>
<td></td>
</tr>
<tr>
<td>Strip of paper makes sound</td>
<td></td>
</tr>
</tbody>
</table>

6. From your observations, did the wind move? Describe how it moved and its direction.

7. How do you describe the how fast (speed) the wind moved in location A? Place a check (✓) beside your choice below.
   Slow _______   moderate _______   fast ______

   How do you describe the how fast (speed) the wind moved in location B? Place a check (✓) beside your choice below.
   Slow _______   moderate _______   fast ______

8. In this activity, do wind speed and direction vary in different locations at the same time? Why?
Activity 4: Does Weather Change?

Objectives

1. Tell how cold or hot the air is.
2. Compare the temperature of air in different places.
3. Describe the speed and direction of the wind.

Materials

SET A: 2 thermometers and crochet thread or thin rope
SET B: Improvised wind vane   weather chart
Timer

Procedure

A. Temperature of air in a room
   1. Take two thermometers.
   2. Tie one thermometer (A) tightly to a strong support inside the room. You can tie it to a nail on the wall or a window grill. Just make sure that you hang the thermometer in a place where you can easily read the temperature.

Thermometer A             Thermometer B
1. Tie the other thermometer (B) to a shady area outside the room. You can tie it to a branch of a tree that is not directly under the sun’s heat.

2. Two students will read thermometer A, Another two students will read thermometer B. That will be the initial temperature of air inside and outside the room.

3. Continue taking the temperature readings every 10 minutes until you reach 60 minutes.

Complete Table 1 below with your result n your notebook.

<table>
<thead>
<tr>
<th>Time (min.)</th>
<th>Temperature (°C) Inside the room</th>
<th>Temperature (°C) Outside the room</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>60</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Questions**

a. Inside the room: What is the highest temperature recorded? Lowest temperature recorded?

b. Outside the room: What is the highest temperature recorded? Lowest temperature recorded?

c. Are there changes in the temperature readings inside the room? How about outside the room?
d. Where were the temperature changes greater, inside or outside the room?
e. What do these changes in the temperature mean?
f. In which area was the air cooler, inside the room or outside the room?

Activity 5: The Daily Weather

Objectives
1. Describe how the wind moves within the day.
2. Tell how hot or cold is the place you are staying in.
3. Identify the elements of weather involved

Materials
- weather Chart
- improvised wind vane
- thermometer
- string or thin rope

Procedure
1. Observe whether the day is sunny, windy, rainy, or stormy.
2. Go outside the room with your teacher and group mates. Find an area where you will place your improvised wind vane.
3. Observe the instrument for ten (10) minutes. The following questions can help you with your observations:
   A. Is the paper moving? Is it moving slowly, moderately, or fast?
   B. What does the movement of the paper mean?
   C. What is the direction of the wind?
4. Record your observations and answers to questions A, B, and C in the Table 1.

Table 1. Observations on the wind’s speed and direction for the day

<table>
<thead>
<tr>
<th>TIME</th>
<th>Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>First 5 minutes</td>
<td></td>
</tr>
<tr>
<td>A</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Next 5 minutes</td>
<td></td>
</tr>
<tr>
<td>A</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td></td>
</tr>
</tbody>
</table>

5. Take the temperature of air in the room and outside the room every 10 minutes for 30 minutes. Write your readings in Table 2.

Table 2. Temperature of air inside and outside the room

<table>
<thead>
<tr>
<th>Time (min.)</th>
<th>Temperature (°C) Inside the room</th>
<th>Temperature (°C) outside the room</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
In which place is air cooler, inside the room or outside the room?

6. Complete your observations of the day’s weather. Fill up Table 3 with your observations.

<table>
<thead>
<tr>
<th>What to Observe</th>
<th>DAY 1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Weather Condition</strong></td>
<td></td>
</tr>
<tr>
<td>• Sunny /Fair</td>
<td></td>
</tr>
<tr>
<td>• Rainy</td>
<td></td>
</tr>
<tr>
<td>• Windy</td>
<td></td>
</tr>
<tr>
<td>• Stormy</td>
<td></td>
</tr>
<tr>
<td><strong>Clouds</strong></td>
<td></td>
</tr>
<tr>
<td>• Clear</td>
<td></td>
</tr>
<tr>
<td>• Partly cloudy</td>
<td></td>
</tr>
<tr>
<td>• Cloudy</td>
<td></td>
</tr>
<tr>
<td><strong>Type of Cloud</strong></td>
<td></td>
</tr>
<tr>
<td>• Cirrus</td>
<td></td>
</tr>
<tr>
<td>• Cumulus</td>
<td></td>
</tr>
<tr>
<td>• Stratus</td>
<td></td>
</tr>
</tbody>
</table>

- Describe the weather condition for the day.
- Does the weather condition change within the day?
Activity 6: Weather Reporter

Objectives

1. Make a weather bulletin for a week.
2. Report orally the weather for the week.

Materials

weather charts   thermometer

Procedure

1. Use the weather chart in activity 5.
2. Make a simple weather bulletin using the table below.

```
WEATHER

____________________________________
____________________________________
____________________________________

Temperature: _______________
```

Question

Have you ever interviewed a weather forecaster? What have you learned from him/her?
Activity 7: Weather Collage

Objectives

1. Describe how weather affects people, plants and animals
2. Make a collage showing the effects of weather on people, plants and animals

Materials

cut out pictures showing different activities of people
paste or glue coloring pen/pencils
cartolina for each group

Procedure

1. Talk with your group mates. Think about the good and bad effects of the different kinds of weather on people, plants, and animals. Write the results of your discussion in your notebook following the table below.
2. Make a poster showing these effects of weather on people, plants and animals. See Table 1.

Table 1. Effects of different weather conditions on people, plants, and animals

<table>
<thead>
<tr>
<th>Weather condition</th>
<th>Effects of weather on people</th>
<th>Effects of weather on Plants</th>
<th>Effects of weather on Animals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sunny</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Windy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rainy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stormy</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
A. What kind of weather brings good effects on
   a) people? Why?
   b) animals? Why?
   c) plants? Why?

B. What kind of weather brings bad effects on a
   a) people? Why?
   b) animals? Why?
   c) plants? Why?

C. What kind of weather do you like most? Why?
D. What kind of weather do you hate most? Why?

**Activity 8: Be Careful with what we do**

**Objective**

Draw the safety and precautionary measures in dealing with the different types of weather condition

**Materials**

Clothes and things used in different weather conditions, Activity notebook.

**Procedure**

1. Draw one activity you need to do for each weather condition. Do this in your notebook.

<table>
<thead>
<tr>
<th></th>
<th>Things I like to do (Draw)</th>
<th>Things I should not do or be careful of the things I do</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sunny Day</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rainy Day</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Windy Day</td>
<td>Things I like to do (Draw)</td>
<td>Things I should not do or be careful of the things I do</td>
</tr>
<tr>
<td>----------</td>
<td>---------------------------</td>
<td>-----------------------------------------------------</td>
</tr>
<tr>
<td>Stormy Day</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. How different are the activities you do during warm or sunny days from the activities you do during cold or rainy days?

3. How different are the conditions of animals during sunny weather from cold rainy day?

Chapter 3: Objects Seen in the sky

This Chapter deals with the different objects in the sky, their sizes and brightness. It further discusses the position of the sun and its effects on people, animals and plants.

Lesson 1: Objects Seen in the Sky
Activity 1: Sky during night and day time

Objective
Describe the objects seen in the sky.

Materials
Graphic organizers

Procedure
Write what you see in the sky during day time and night time. Copy the model below in your Activity notebook. Then, answer the questions that follow.
Graphic Organizer 1: Objects seen in the sky at night.

Sky at night

Graphic Organizer 2: Objects seen in the sky at daytime

Sky at day

a. What objects do you see in the sky at night? During the day?
b. Are they the same objects?
c. Tell something about these objects.
d. Why do objects that are seen at night cannot be seen during daytime?
Activity 2: Sizes of objects seen in the Sky

Objective
Relate the different sizes of objects seen at night and day

Materials
small ball; 2 big balls; ruler or meter stick

Procedure:

Set-up A
1. Get 1 small ball and 1 big ball. The balls should be of the same kind.

2. Put the big ball 4 meters away from the small ball. (Figure 1)

1. Position yourself in front of the small ball.

2. Look at the balls at eye level.

3. Observe their apparent sizes.
Figure 1.

Set-up B
1. Get 2 big balls. Place them 4 meters apart on table.
2. Position yourself in front of the 1st ball, then look at the two balls at eye level. Observe their sizes.

Set-up C
1. Reverse the set-up in B.
2. Place the big ball 1 meter away from you. Place the small ball 4 meters away from the big ball.
3. Position yourself in front of the big ball and look at the balls at eye level.

Questions
a. In set-up A, which ball looked bigger as you saw it?
b. Describe what you saw in set-up B. Which of the 2 balls appeared bigger? Or smaller?
c. How did the big ball appear in set-up C? the small ball?
Activity 3: Brightness and Dimness of Objects seen in the Sky

Objective
Describe the brightness and dimness of objects seen in the sky.

Materials
3 candles of the same size and kind; match; long table

Procedure
1. Place three candles 3 meters away from each on a long table.
2. Stand about a foot away from the first candle and observe the brightness of the three candles at an eye level.
3. Record your observations in your notebook.

Questions
Write your answer in your notebook.
   a. Which candle looked bigger and brighter?
   b. Which candle looked smaller and dimmer?
   c. How would you relate the distance between the 3 candles to their brightness or dimness?
Activity 4: Position of the Sun at Different Times of the Day

Objective
Make observations of the position of the sun at different times of the day

Material
Flashlight

Procedure
1. Use the figure above as a guide to make the set up.
2. Focus the flashlight at different positions. The flashlight is the sun and the object at the center is anything on Earth.
3. Point the flashlight to the object at the center. Observe.
4. Record your observations.

Questions
a. In the morning, what is the position of the sun?
   b. At noontime, where is the sun?
   c. In the afternoon, where can you find the sun?
Activity 5: Harmful Effects of Sun’s Heat to People

Objective

Make observations of the effects of the sun to people

Materials

alcohol burner, eggplant, tomato, kitchen tong,

Procedure

1. Light the burner.
2. Hold the eggplant with a kitchen tong near the fire for three minutes. (Fig.1)
3. Repeat the procedure for the tomato. Use the kitchen tong.
4. Observe the skin of the eggplant and tomato.

Questions

Write the answers in your Activity notebook.
a. Did you see some changes in the skin of eggplant and tomato after holding it near the alcohol lamp? What are they?
b. Did you see some changes in the skin of tomato after putting it over the alcohol lamp? What are they?
c. Draw the appearance of tomato and eggplant before and after they were placed near the alcohol lamp. Do this in your notebook.
d. Why do you think the skin appear burned or dark?
e. Can the changes in the skin of eggplant and tomato happen in the skin of people? How?
f. What are the effects of too much heat on people?
g. Gather pictures of people who work under the sun for long hours. Describe the effect of the sun on the people.

Activity 6: Effects of Sun’s Heat on Plants

Objective

Describe the effect of sun’s heat on plants

Materials

Plants available in the school/community

Procedure

1. Get two potted plants of the same kind preferably having the same height and number of leaves.
2. Place one potted plant under the sun (Plant A) and the other one under the shade (Plant B).
3. Water the plants with the same amount of water.
4. Observe each plant two times a day, in the morning and in the afternoon. Do this for three days.
5. Copy the table below in your notebook. Write your observations in your notebook. Copy the table below.

<table>
<thead>
<tr>
<th>TIME OF THE DAY</th>
<th>WHAT DO I SEE?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Plant under the shade</td>
</tr>
<tr>
<td>8:00 AM</td>
<td></td>
</tr>
<tr>
<td>2:00 PM</td>
<td></td>
</tr>
</tbody>
</table>
Questions
a. Describe the condition of the plants before placing them under the shade and under the sun.
b. What happened to Plant A and Plant B after 2 days. Do they look the same?
c. What happened to Plant A and Plant B after 3 days? Do they look the same?
d. Does the sun have any effect on both plants?
e. Write a statement about the effects of the heat of the sun on plants.

Activity 7: Effects of Sun’s Heat on Animals

Objective
Describe the effects of the heat of the sun on animals

Materials
Garden or places near the school ground

Procedure
1. Look for animals in the school surroundings. Identify the animals.
2. Describe the appearance of the animals that you see.
3. Describe the behavior of each animal. Record your observation in your notebook.
<table>
<thead>
<tr>
<th>Name of the Animal (Local Name)</th>
<th>Where did I see the animal?</th>
<th>Appearance of the Animal</th>
<th>What was the animal doing?</th>
<th>What other behavior of the animal did you see?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
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**Questions**

a. Where did you see the animals? Name the animals.

b. Did you see animals staying in shady areas? Why do they like to stay there?

c. Did you see animals under the heat of the sun? Why do they like to stay there?

d. What were the animals doing under the shady area?

e. What were the animals doing under the sun?

f. Does the sun have an effect on animals? What is it?