Unit 2

The Earth

Soil

Air

Water

Climate

Date
Day

1 Soil

What is soil?

Soil is a mixture of **rocks**, dead parts of **plants** and **animals**, **water** and **air**.

Activity 1a

Do this with your teacher.

You will need-

Soil from different places.
Paper for each soil sample.
Hand lens.

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Soil 1

What you do-

1- Collect soil from different areas. From the beach, from inland.

2- Pour each soil sample on to a white sheet of paper.

3- Can you see the grains of sand?

4- Are the grains of sand big or small?

5- Do they stick together, spread out, or form lumps?

Date
Day

1 Soil

6- What colour is the sand?

7- Are there different colours among the grains of sands?

8- Does the sand have a special smell?

9- What other things can be seen in the sand?

10- Rub the sand between your finger and thumb.

11- Pour it through your fingers.

12- How does it feel?

13- Pour it through a sieve.

14- What happens?

Date
Day

Soil 1

Glue a small amount of the soil samples collected in your notebook.

Draw and show from where the samples were taken.

Draw your soil samples.

Write-

What you observed about your samples.

Now do you know how our soil is formed?

Why do we have to look after our soil?

Some trees planted in soil

Date
Day

1 Soil

Activity 1b

Do this with your teacher.

You will need -

Two plants.
Soil samples from the beach and inland.
Two pots.

What you do -

1- Put soil samples from inland into pot-1.

2- Take one of the plants and plant it.

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Soil 1

3- Now put soil samples from the beach into pot-2.

4- Plant the other plant in it.

5- Put them out in the sun.
Water both plants regularly.
Look after them carefully.

Draw the two plants.
Plant in soil from the beach, Pot 1.
Plant in soil from inland, Pot-2

Draw the two plants after about one week.

Plant in pot-1
Plant in pot-2

Write-

What does the plant in pot-1 look like?
What does the plant in pot-2 look like?
Why did the plant in pot-1 die?
Why did the plant in pot-2 live?

Date
Day

2 Air

Air is a mixture of gases. It also contains dust.
We cannot see, smell or taste air, but we can feel air.
Sometimes air can make things move.

Activity 2a

Do this with your teacher.

You will need-

A balloon for each child.

What you do-

1- Take a balloon.

2- Can you make it bigger? How?

3- Blow up the balloon. What happens to the balloon?

4- What is in it?

Date
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Air 2

5- Push on the balloon. What do you feel?

6- Squeeze the balloon. Does the balloon take on different shapes?

7- Keep the balloon near your face and let go of the mouth of the balloon.

8- What do you feel?

Date
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2 Air

Draw a picture of a balloon which is not blown up.
Then **draw** what it looks like when you blew it up.

Write 2 to 3 sentences about:
-What is in the balloon?
-When you let go of its **mouth**, near your **face**, what did you **feel**?
Did you see any thing? What does this tell you?

Date
Day

Air can move things 3

Activity 3a

You will need-

Small sheets of ordinary paper (used paper).

What you do-

1- Put small pieces of paper on your table.

2- Try to move it without touching it.

3- What did you do?

4- Blow on to the pieces of paper.

Date
Day

3 Air can move things

5- What happens to the pieces of paper?

6- Take one of your thin books.

7- Try fanning on to the pieces of papers.

8- Do the pieces move?

9- Your teacher will help you make paper fans.

10- Fan it on your face. What do you feel?

11- Your teacher will help you make small sailing boats.

Date
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Air can move things 3

12- Take your paper boats home.

13- If possible, float ithem on a basin of water.

14- Which boat goes faster?

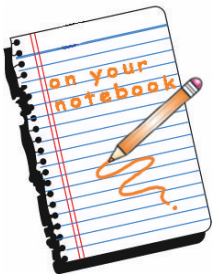
15- How can you make your boat go faster?

Date
Day

3 Air can move things

What are the things that you moved without touching?

Draw the things you used and how you moved them.



Write 2 to 3 sentences about what happened

What did you move?

How?

About 20 years ago Maldivians used sailing dhonis to travel from island to island. What helped them to move?
When they were hot there were no fans to switch on. What did they use to cool themselves?
What do we use now?
Discuss.

Date
Day

Water 4

Water is everywhere. Water can be found in seas, under the ground, frozen and in the air.
Water can be a **liquid**. It can change from a **solid** to a **liquid** and to a **gas**.

Steam from Water

Liquid to Solid

Activity 4a

Do you know what happens to the wet clothes when they are hung up to dry?
Let us find out how the water in your clothes disappear.

Date
Day

4 Water

Activity 4a

Do this with your teacher.

You will need-

3 plates.
Jug of coloured water (can use food colouring).
Marker and a small glass.

What you do-

1- Mark a line on the glass with a marker. Pour the coloured water into the glass up to the mark.

2- Pour the water in the glass into the plate 1

Date
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Water 4

4- Fill the empty glass with the jug of water.
Fill up to the mark.

5- Now pour it into plate-2.Take care not to spill any water.

6- Cover plate-2 with another plate.

7- Leave plate-1 uncovered.
Leave both plates in a warm place.

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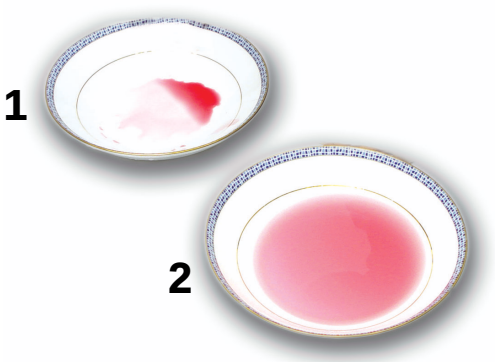
4 Water

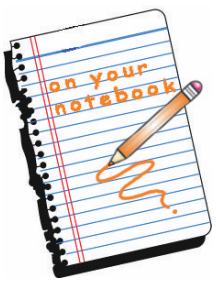
8- Check after 3-4 hours.

9- What has happened to the water in plate-1 and the water in plate-2?



Draw plate-1 and plate-2 with the water in it.

Now **draw** plate-1 and plate-2 after you had left it for some hours in a warm place.



Write about -
what has happened to the water in plates 1 and 2.
Which plate has less water?
Why?

Date
Day

Ice 5

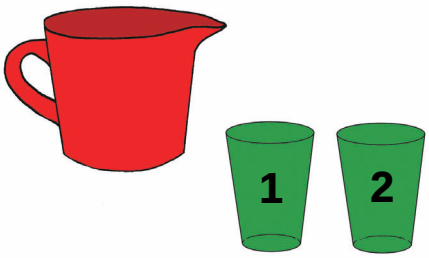
Water **freezes** when it gets very **cold**. Some heat in the water is lost and it changes to **ice**.

Activity 5a

Do this with your teacher.

You will need-

A jug of water.
2 cups.



What you do-

1- Pour the same amount of water into cup-1 and cup-2.

Date
Day

5 Ice

2- Put them in the refrigerator.
Keep it for about 2-3 hours. Check the cups.

3- What has happened to the water in the cups?

4- Keep cup-1 outside in a warm place for sometime.

5- Keep cup-2 in the refrigerator.

6- Can you see any changes?

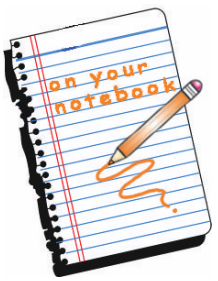
Date
Day

Ice 5

Draw Cup-1 and Cup-2 after you took them out of the fridge.

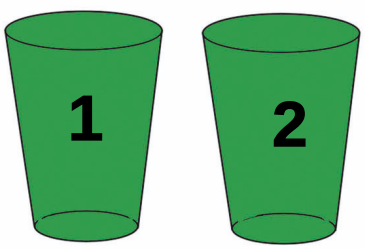
Draw cup-1 after you kept it outside for sometime.

Write



- What happened to the water in the cups when they were put in the refrigerator?

- What happened to the water in cup-1 when it was kept outside for sometime. Why?



Date
Day

5 Ice

Look at the globe or the map of the world.
Can you see the Antarctic and the Arctic Circle?
Your teacher will show it to you.
It is very cold in these regions. Why is it so cold in these regions? Here in the sea we find ice which is huge like mountains.

Date
Day

Water vapour 6

Activity 5a

Do this with your teacher.

You will need-

A kettle with water.
A cooker.
A plate.

What you do-

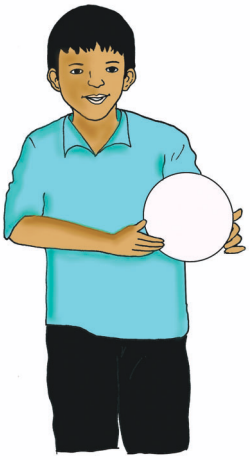
1- Boil the water.

2- When it starts to boil what do you see coming out of the kettle?

Date
Day

6 Water vapour

3- Wipe a plate.



4- Touch it to see if it is dry.

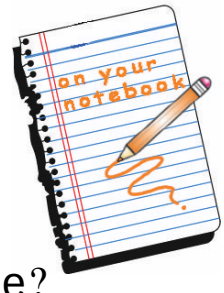
5- Now put the plate over the spout of the kettle.

6- After a while check the plate. What do you see on the plate?

Date
Day

Water vapour 6

Draw what you did.



Write about -
What was on the plate?
Where did the water come from?

Now we know that when we put water in a very cold place it freezes and changes into ice.
When we boil water or when water gets heated some of it goes into the air as a gas.
Do you know what this gas is called?

Date
Day

7 Change

Change happens everywhere. It happens all the time. All living things change. **People**, **plants** and **animals** change.

What did you look like when you were 1year old.

Activity 7a

Do this with your teacher.

Some things change quickly, some things take a long time to change. Things that are not living also change.

You will need-

A glass of water.

Some food colour.

Date
Day

Change 7

What you do-

1- Take a glass of water.
Add a little food colour.

2- What happens to the water?

3- **Discuss.**

Date
Day

7 Change

Activity 7b

You will need-

Some fresh flowers.
Paper.
Crayons.

What you do-

1- Look at the fresh flowers

2- **Draw** them and colour them.

3- Keep them for a week.

4- Observe the flowers everyday.

Date
Day

Change 7

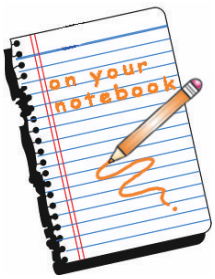
5- What did the flowers look like after 5 days?

6- **Draw** them.

7- **Discuss.**

Take a walk with your teacher.
Observe any changes that you see around,
-your school

Draw the thing that has changed.
What did it look like before?
What did it look like now?

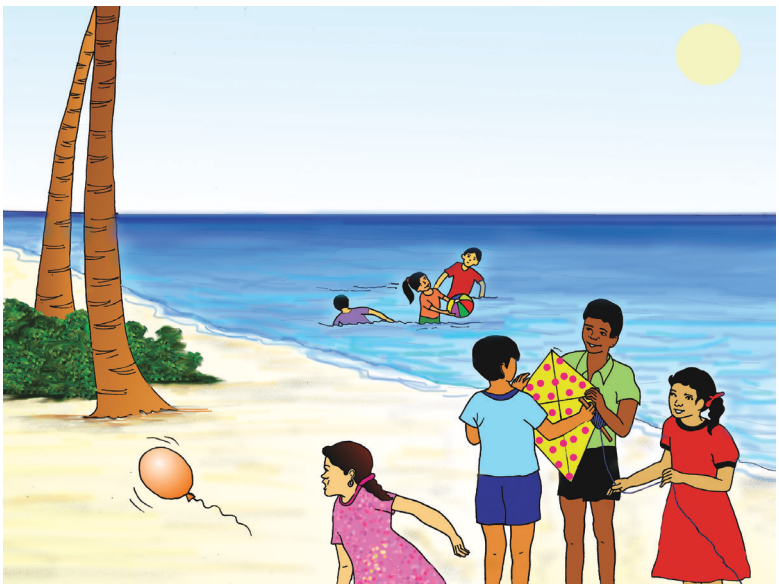


Write why they have changed.
Observe, **draw** and **write**:
- A change that you saw and liked.
- Why did you like that change?

Date
Day

8 Day

The sun brings about day. When it is sunny, you can see the sun shining. It gives us light. It keeps us warm. The sun helps us to see things without any other lights. Sunlight helps the plants to grow too.



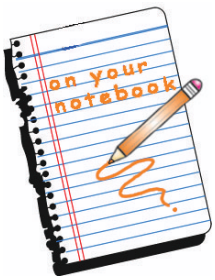
Date
Day

Day 8

Activity 8a

How do we know that it is day?
Is what you do during the day different from what you do at night?

Draw
What you see during the day.
What you do during the day.



Write 2 to 3 sentences about your drawing.

Date
Day

9 Night

When it is night, the sun sets and it gets dark. We see the moon very clearly at night. Night is the time we rest. It is more quiet at night than during the day.

Date
Day

Night 9

Activity 9a

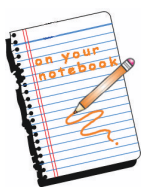
1- How do we know when it is night?

2- What do you do at night?

3- What do you see at night?

4- What happens when there is no electricity at night?

Draw and **write** 3 to 4 sentences about night.



Date
Day

9 Night

Activity 9b

Go out with an adult for 5 nights to look at the moon.
Draw the changes that you saw in the moon.

Activity 9c

Write under the heading **My favourite time.**

What do you like best? Day or night?

Why is it your favourite time?

What you love about day or night.

Date
Day

Weather 10

Weather is day to day changes in the air at any place. It is everywhere. It is not the same all over the world. Weather is sunshine, rain, wind, snow and even fog. It is made up of water, wind, clouds and heat from the sun.

sunshine

rain

wind

Date
Day

10 Weather

Activity 10a

Do this with your teacher.

1- Look at the weather today.

2- What is it like?

3- Do you feel cold?

4- Do you feel warm?

5- What do you see in the sky?

6- What type of clouds are in the sky?

7- What are the people doing?

Draw what the weather is like today.

Write about the weather today.
Do you like the weather today? Why? Why not?

feeling hot

feeling cold

Date
Day

Weather 10

Activity 10b

1- Look at the pictures.

2- What type of weather do they show?

3- **Discuss.**

Date
Day

11 Hot or cold

Temperature is a measure of how hot or cold something is.
How do we find out how hot or cold something is?
We often find out by touching it.
But sometimes our sense of temperature is not quite right.

Activity 11a

Do this with your teacher.

You will need-

3 bowls.
Hot and cold water.

What you do-

1- Arrange the three bowls as shown in the picture.

2- Pour cold water into bowl-1 and hot water into bowl-3.
This should be done by the teacher. The hot water should be just hot enough for you to be able to hold your hand in it.

Date
Day

Hot or cold 11

3- Pour some hot water and some cold water into bowl-2.

4- Now put one hand in the hot water in bowl-3 and the other hand into the cold water in bowl 1. See picture

5- Leave them there while you slowly count up to 60.

6- Now put both hands in the lukewarm water in bowl-2 (the mixed hot and cold water). See picture.

7- How do your hands feel? **Discuss.**

Date
Day

12 How hot?

Activity 12a

You will need-

4 pieces of cloth of the same material and size. The pieces of cloth should be of different colours (yellow, blue, white black).

What you do-

1- Wet the pieces of cloth.

Date
Day

How hot? 12

2- Hang them out in the sun to dry.

3- Check the time.

4- Check the pieces of cloth after 10 minutes.

5- Keep on checking till all the pieces of cloth dries.

6- Which piece of cloth dried up first?
Which one dried up last?

Draw the piece of cloth which dried up first and the one which dried up last?
Write which one dried up first?

Date
Day

13 Clouds

A cloud has lots and lots of tiny drops of water. When there are many drops of water in the cloud it gets too heavy and fall down as **rain**.

Activity 13a

Do this with your teacher.

You will need-

A clear glass or plastic bottle.
An ice cube.
A sheet of black paper.
Hot water.

What you do-

1- Warm the bottle by pouring a little hot water (not boiling water) into the bottle. Your teacher will do this.

Date
Day

Clouds 13

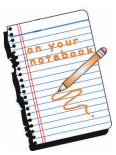
2- Tip some of the water out but leave a layer of water about 2centimetres deep in the bottle.

3- Rest the ice cube on the open top of the bottle.

4- Hold the piece of black paper behind the bottle.

5- What do you see?

Draw what you see.



Write-

What is in the bottle?

What has happened?

Why?