

UNIT - 4

Sun-Tour

ACTIVITY - 1

- Your teacher will read the story. Listen to her. Then read the story silently.



One day the Wind says to the Sun..., "I am the strongest in the world. I can uproot trees. I can blow off roofs and...."



"Oh, I see ! Do one thing. Look at that man. Can you make him take off his coat ?" the sun said.



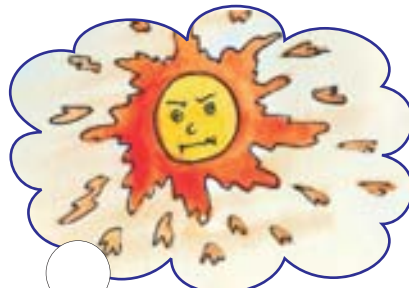
"Oh, yes. That's very easy. You watch."



The Wind blows harder and harder, but the man wraps himself tightly...



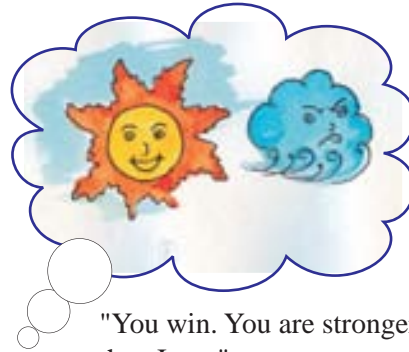
Finally the wind stops. "Now let me try", said the sun.



The sun shines brighter and brighter....



The man takes off his coat and sits under a tree.



"You win. You are stronger than I am."

ACTIVITY - 2

- **Read this dialogue. Then dramatize it in your class.**

Vrunda : Mummy, where have you kept my project work?
Mummy : In your cupboard.
Vrunda : And where have you put my colour box ?
Mummy : In your drawer.
Vrunda : I can't find my science book.
Mummy : I have put it also in your cupboard.
Vrunda : Have you put the Audio CD in my bag ?
Mummy : Yes, of course !
Vrunda : And what have you done to my box ?
Mummy : Box? Which box ? What has happened to you, Vrunda ?
Vrunda : Mummy, dear, I'm only confirming. Sorry, today I have a project on Solar energy in our school.
Mummy : Best of Luck 'beta'.
Vrunda : Thank you.



ACTIVITY - 3

- **Here are some interesting facts about the sun. Know them.**

1. The sun is 5 billion years old.
2. It is 15 crore kms away from the earth.
3. It is 1,30,000 times the size of the earth.
4. It is just like a Hydrogen bomb. It produces energy by converting Hydrogen into Helium.
5. The temperature on the surface of the Sun is about 6100°C . It can turn a rock into gas immediately
6. The temperature at the centre of the Sun is about 20000000°C .
7. The energy the earth uses in 100 years is released by the Sun only in one second.

ACTIVITY - 4

SOLAR ENERGY

In your science books you have read about energy. Do you know what is meant by 'solar energy' ? Well, it is the energy from the sun. Solar means from the sun. As you already know, the sun is a bright star. The earth and other planets move around it. This is our solar system.

In India the sun usually shines very brightly. That is why the Indian summer is extremely hot and long. All of us have experienced the hot summer days. We feel restless during this season. The strong sun-rays cause sun-strokes, too. We are forced to protect ourselves from the harsh rays of the hot summer sun. However, we have invented many ways of protecting ourselves from the scorching heat.

Now we have found a way to use the hot rays of the sun. The scientists have successfully converted the heat from sun-rays into electricity. As you know we need energy to run vehicles, to light our homes and streets, to cook food, to run factories, even to run our television sets and computers. We make use of different kinds of energy for different purposes. In the same way, we get energy from various sources. These sources are coal, petrol, water, wind and so on.

Scientists have generated electricity from the sun-rays. In fact, scientists believe that in a warm country like India, the sun can be a

major source of energy. During recent times, numerous experiments have been conducted in Gujarat to tap this natural source of energy. The heat from the sun-rays is utilised to produce electricity. People have already started making use of solar cookers, solar heaters, solar batteries, etc.

Have you noticed shining, glass-like plates on the top of multi-storey buildings, hospitals, hotels, factories and offices ? They are solar heaters. This device collects energy from the rays of the sun. This energy is converted into heat. The heat produced from solar energy is used to heat water. This water, then, is put to varied uses such as bathing, cooking, cleaning, washing, drinking and so on.

The energy produced from the solar rays can also light bulbs and keep our homes, offices and streets illuminated. There are some villages and industrial areas in Gujarat where this source of energy is used to light up the streets at night. Thus, with their innovative ideas and hard work, scientists have turned the bane into a blessing.

Man has taken help of science and technology and developed varied ways of producing energy from different sources. The sun is a source of abundant energy. Let us hope that we are able to use solar energy and provide electricity to remote areas in our country. That's indeed a ray of hope, isn't it ?

• **Match "A" with "B" appropriately.**

A

solar energy

solar system

restless

sun-stroke

scorching

foreigners

converted

B

a set of planets moving around the sun

power produced by the sun

burning

uneasy

changed

illness caused by too much exposure to the sun.

persons born in or coming from another country



- **Mark true or false. Correct the false sentences.**

1. Solar energy is the energy from a bright planet.

2. Solar energy can illuminate our homes.

3. Scientists convert the sun-rays into electricity.

4. Food can be cooked with energy from the sun.

5. The sun is the only source of energy.

6. There is a ray of hope that the sun will solve our problems.

- **Here are some sentences. Read them carefully. Then read the lesson and find the sentences expressing similar meaning.**

1. You have learnt about energy.

2. People from outside India do not come here during the summer.

3. Scientists have started using sun-rays in a new manner.

4. People do not use the same type of energy for all kinds of work.

5. In our country, we can use solar energy for almost every purpose.

6. Scientists have converted the problem into a hope.

ACTIVITY - 5

(A) Look at the following columns carefully. The sentences in A describe a village before the use of the solar energy. Sentences in B describe the village after the solar energy plant was started. Read the two columns and fill up the blanks.

A

1. The village did not use solar energy
2. There was no electricity
3. _____
4. The village streets were dark.
5. _____
6. _____
7. The kitchens were full of smoke.

B

- I. The people have started using solar energy
- II. _____
- III. The houses have solar fans
- IV. _____
- V. There is a television set.
- VI. People have started using solar cookers.
- VII. _____

(B) It is Sunday today. Ali's parents have told him to do a few things. Given below is the list of things. What Ali has completed is marked (✓) and what he has not is marked (✗). Work in pairs and ask questions to each other about Ali and write them.

- | | |
|---------------------------------|-----|
| 1. arranging his books | (✗) |
| 2. cleaning the room. | (✗) |
| 3. watering the plants. | (✓) |
| 4. cutting (trimming his nails) | (✓) |
| 5. taking a bath | (✗) |
| 6. washing his socks | (✓) |
| 7. polishing papa's shoes. | (✓) |
| 8. boiling milk | (✓) |
| 9. watching TV | (✗) |



Example : Has Ali arranged his books ?
No, he has not.

ACTIVITY - 6

(A) Have you been unique? આ રમત તમારા શિક્ષકની મદદથી રમો.
(શિક્ષક મિત્રો, 'Have you been unique' રમતની વિગત Helpline માં
આપી છે.)

(B) Prepare 10 questions and ask them to your classmates.

1. I have seen the film "Gandhiji". Who else has seen it ?
2. Who has visited Goa ?
3. Who has visited a Zoo ?

4.

5.

6.

7.

8.

9.

10.

ACTIVITY-7

(A) Vrunda, Ali, Chintan, Anju and Amit have planned a picnic. Use these clues and make sentences.

1. invite Lila, Divyesh, Jaimini, Viral
2. decide to go to Kabirvad
3. write a leave note to the teacher
4. collect some games
5. request Vrunda's mother to make snacks
6. pack things
7. request Ali's father to lend a camera
8. Anju agrees to keep an account
9. Lila and Kanu book seats in a private bus

Example :

1. They have invited Lila, Divyesh, Jaimini and Viral.

(B) It is two hours before the annual examination. Write a paragraph describing what you have done. Ask yourself : Am I ready ?

Example :

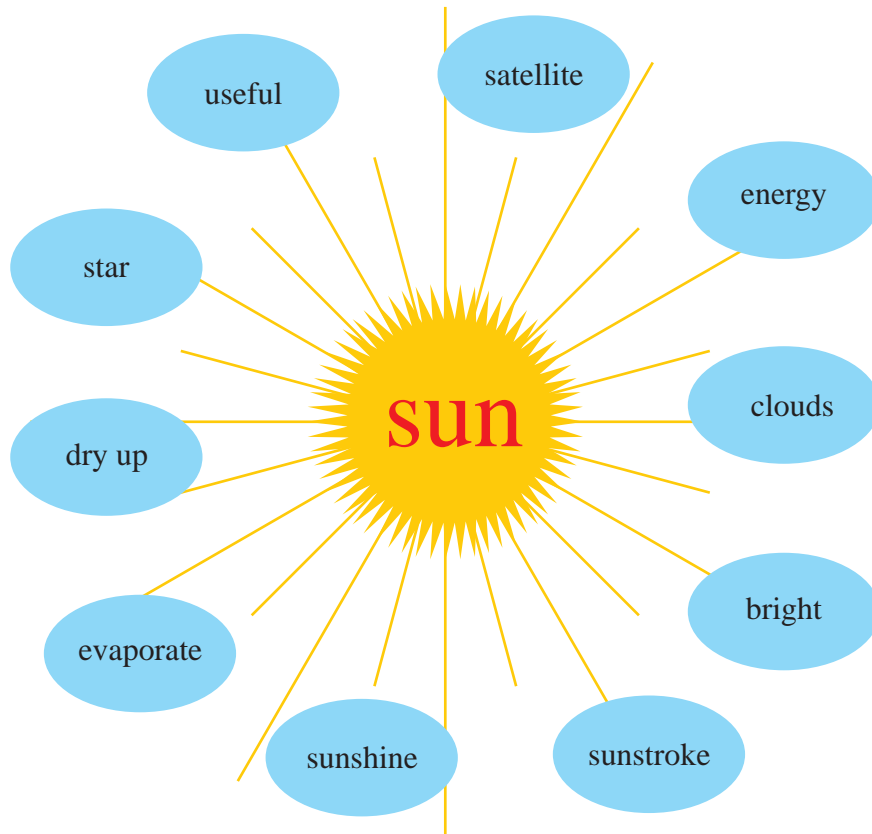
I have put two pens in my compass box. I have

Oh ! I have forgotten to study this lesson.



ACTIVITY -8

- All the words given below are related to the sun. Make sentences using these words.



Now, write a paragraph on the Sun. Use some of the words given above.

Help Line

- આ યુનિટ પૂર્વે વિદ્યાર્થીઓને વિજ્ઞાનના પુસ્તકમાંથી સૂર્ય ઊર્જા અને સૂર્યમંડળ વિશેની વિગતો વાંચવાનું કહ્યું.

- Activity-6** માં 'Have you been unique ?
'રમત માટે વિદ્યાર્થીઓને નીચે જેવા પ્રશ્નો પૂછો.

શિ. -Who has visited Ambaji ?

(જે વિદ્યાર્થીઓએ Ambaji ની મુલાકાત લીધી હશે તે વારાફરતી -I have / I have visited Ambaji એમ બોલશે.)

શિ. - Yes, Janu, Harshvardhan and Dhruvil have visited Ambaji.

Now, tell me who has visited 'Sabarmati Ashram' in Ahmedabad ?
(આવી રીતે સ્થાનિક સ્થળો- વિશે પ્રશ્નો પૂછવા)

- આખા વર્ગમાં કોઈ એક જ વિદ્યાર્થી જવાબ આપે તે 'Unique' જાહેર થાય.
- 'visit'ને બદલે 'eat' 'write' 'read' જેવા ક્રિયાપદો વાપરો.

જેમ કે - Who has read the book 'Chhako -Mako'?