## NCERT SOLUTIONS CLASS - 5th





Class : 5th Subject : Environmental Studies Chapter : 11 Chapter Name : Sunita In Space

Q1 What do you think the earth looks like? Make a drawing of the earth in your notebook. On your drawing, show where you are. Take a look at your friends' drawings too.

Answer. I think earth is round.



Page : 99, Block Name : Straight From The Heart

Q1 If the earth is round like a how is that we do not fall off?

Answer. It is due to the earth's gravitational force. Earth attracts everything towards its centre. That is why we do not fall off.

Page: 100, Block Name: What Do You Think

Q2 Do not people In Argentina stand upside down?

Answer. No, they are not. They are also standing upright. There is actually no 'up' and 'down' on the earth. It is relative.

Page: 100, Block Name: What Do You Think

Q1 Can you think why Sunita 's hair was standing?

Answer. We know that on earth, our hair remain in downwards portion due to earth's gravitational force. But in space, there is no such gravitational force. That is why Sunita 's was standing.

Page: 101, Block Name: Look At The Photograph And Write

Q2 Look at Sunna's photographs and the dates written on each of them. Write what all is happening and when?

Answer. 9-12-2006 The spacecraft is taking off 11-12-2006 Astronauts are floating inside the spacecraft. 11-12-2006 Astronauts are taking off 13-12-2006 Sunna is working.16-12-2006 Sunna is roaming outside the spacecraft.

Page: 101, Block Name: Look At The Photograph And Write

Q1 Close your eyes. Imagine that your class is a spaceship. Zooo...m — in 10 minutes you have entered in space. Your spaceship is now going around the earth. Now say: Are you able to sit at one place?

Answer. No, we are unable to sit at one place. Everyone is floating

Page : 103, Block Name : Classroom Becomes A Spaceship

Q2 What about your hair?

Answer. My hairs are standing up.

Page: 103, Block Name: Classroom Becomes A Spaceship

Q3 Oh, look ... where are your bags and books going?

Answer. My bags and books are also floating in air.

Page : 103, Block Name : Classroom Becomes A Spaceship

Q4 And what is your teacher doing? Where is her chalk?

Answer. My teacher is also floating in air and she is trying to catch a floating chalk.

Page: 103, Block Name: Classroom Becomes A Spaceship

Q5 How did you eat your food during the break? How did you drink Water? What happened to the ball that you threw up?

Answer. We had to grab the puri, flying in the air. The water floated in the form of blobs and we had to suck them. The ball I threw up started floating in air.

Page: 103, Block Name: Classroom Becomes A Spaceship

Q1 Can you now say why Sunita's hair kept standing?

Answer. Sunita's kept standing because there is no gravitational pull in the space.

Page : 103, Block Name : Isn't It Amazing

Q2 Think why water flows downwards on any slope? On mountain too water flows downwards, not upwards?

Answer. Water flows downwards on any slope or on mountains due to the gravitational force acting upon It.

Page : 103, Block Name : Isn't It Amazing

Q1 Take a 5-rupee coin and a small piece of paper. The paper Should be about one-fifth the size of the

## coin.

1. Hold the coin In one hand and the paper In the other. Drop them at the same time. What happened?

2. Now place the tiny paper on the coin and drop them. What happened this time? Surprised?

Answer. 1. Both fall down the coin has fallen quickly. 2. Now, both fall down together, at the same time.

Page : 104 , Block Name : Magic1- A Tiny Paper Races A Coin

Q1 To play this you will need a small stone, a bigger stone, and a thick roll of paper (which can be made by with layers of paper), mouse and an elephant made of paper.

Take a string about 2 feet long.

At one end of the string tie the small stone. Stick or tie the mouse to the stone.

Put the string Into the roll of paper. At the other end of the string tie the bigger stone and stick the elephant. Hold the roll of paper and move your hand to rotate the small stone.

Who is pulling whom? You will be surprised! The mouse lifts the elephant! How did this magic happen ?

Answer. When the small stone (mouse) lifts, creates a force due to which the bigger stone (elephant) is pulled up.

Page : 104 , Block Name : Magic 2- A Mouse Lifts An Elephant

Q1 Can you see India?



Answer. Yes, not clearly.

Page : 105, Block Name : Look At This Photograph And Tell

Q2 Can you any recognize other place?

Answer. It is very difficult to recognize any other place exactly.

Page : 105, Block Name : Look At This Photograph And Tell

Q3 Where Is the sea?

Answer. The blue part of the picture is sea.

Page : 105, Block Name : Look At This Photograph And Tell

Q4 Do you find anything similar between the globe and this picture of earth? In what way are they different?

Answer. The similarity is both the cases the land and the sea areas can be distinguished. However, the entire land area is divided into various on the globe which is not so in case of this picture of the earth.

Page : 105, Block Name : Look At This Photograph And Tell

Q5 Do you think Sunita's could make out Pakistan, Nepal and Burma separately when she saw the earth from space?

Answer. No, I do not think so.

Page: 105, Block Name: Look At This Photograph And Tell

Q1 Could you find India?

Answer. Yes, I found it.

Page : 105, Block Name : Look At This Photograph And Tell

Q2 Where do you find the sea?

Answer. The blue parts of the globe are seas.

Page: 105, Block Name: Look At This Photograph And Tell

Q3 Which countries can you see?

Answer. I can see all countries like India, Pakistan, China, Bangladesh, SriLanka, Indonesia, Singapore, USA, Russia, France, Britain, Germany, Mexico etc.

Page: 105, Block Name: Look At This Photograph And Tell

Q4 Can you see some of the countries with which India plays cricket matches? For example: England, Australia, Pakistan, Bangladesh and South Africa.

Answer. Yes, I can see all these countries.

Page : 105 , Block Name : Look At This Photograph And Tell

Q5 What else can you see on the globe?

Answer. Yes, I live in Delhi and I can find my state in the map.

Page : 105 , Block Name : Look At This Photograph And Tell Q1 Can you nnd the state In which you live? Write Its name on the map.

Answer. Yes, I can find the state which I live in. It is Delhi.

Page : 106 , Block Name : Look At The Map Given In This Book And Tell

Q2 Which are the states next to the state you live in?

Answer. Delhi is in Haryana and Uttar Pradesh.

Page : 106, Block Name : Look At The Map Given In This Book And Tell

Q3 Have you been to any other state?

Answer. Yes. I have been to many states like Uttar Pradesh Haryana, Punjab, Himachal Pradesh etc.

Page : 106, Block Name : Look At The Map Given In This Book And Tell

Q4 Shahmir thinks that there are lines drawn on the ground, between the states. What do you think?

Answer. There is no such line made on the ground, between the states. It's all on the map only.

Page : 106, Block Name : Look At The Map Given In This Book And Tell

Q1 Why don't you try to do the same with a coin? How many centimetres away from the eye did you keep the coin to hide the moon?

Answer. To hide the moon completely, the coin has to kept at 25 centimeters away from the eye.

Page : 106 , Block Name : Look At The Sky

Q1 Do you think the moon is flat like the coin or round like a ball?

Answer. I think the moon is round like a ball.

Page : 106 , Block Name : Think

Q1 Look at the moon tonight and draw what it looks like. Look and draw again after one week, and then after 15 days.

Answer.



Page: 107, Block Name: Think

Q1 When Is the next full moon? At what time will the moon rise on this day? What does the moon look like on this day? Draw it.

Answer. The next full moon is on 15th of this month. That day the moon will rise at a little rate at round 9.00 pm- The moon will look spherical on this day.

Page : 107, Block Name : Find Out

Q2 What are the festivals related to the moon?

Answer. There are many festivals related to the moon like Eid, Karwachauth etc.

Page : 107, Block Name : Find Out

Q3 At night look at the sky carefully for 5 minutes. What could you see?

Answer. I could see the moon, stars etc.

Page : 107, Block Name : Find Out

Q4 Did you see anything moving in the sky? What do you think It could be? A star or a shooting or a satellite (satellites are used for the TV, telephones and for weather reports). Find out more about this.

Answer. Yes, I saw something moving in the sky. It may a meteorite, is also called a shooting star. These are the bodies moving around in the space which then enter the earth's atmosphere, catch fire. Thus they look bright, which when enter the earth's atmosphere. Thus, they look bright.

Page : 107, Block Name : Find Out

Q1 Given below are the times at which the moon rises and sets in Delhi (on the given days).

Date	Time of moonrise (hours : minutes)	Time of moonset (hours : minutes)
28.10.2007	19:16	08:50
29.10.2007	20:17	10:03
30.10.2007	21:22	11:08
31.10.2007 、	22:29	12:03

On 28 October the moon came out at <u>16</u> minutes past <u>7</u> o'clock.

Answer. 16,7

Page : 107, Block Name : Look At The Table And Tell

Q2 On 29 October the came out at <u>17</u> minutes past <u>8</u> o 'clock.

Answer. 17, 8

Page : 107, Block Name : Look At The Table And Tell

Q3 On 29 October there was a difference of  $\underline{1}$  hour and  $\underline{1}$  minute in the time of the moon rise (as compared to 28 October).

Answer. 1, 1

Page : 107, Block Name : Look At The Table And Tell

Q4 If you saw the moon rising at 7 pm today, would you see it at the same time

Answer. No, I will not see it again at the same time.

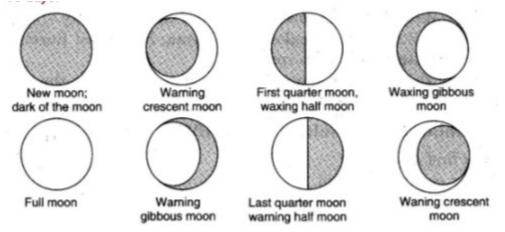
Page : 107, Block Name : Look At The Table And Tell

Q5 On 31st October the time of setting of the moon given as 12:03. Have you ever seen the moon at 12 in the afternoon? Why don't we easily see the moon or stars during the day?

Answer. No, I have never seen at 12 in the afternoon. We don't early see the moon or stars during tlk day of the sunlight.

Page : 107, Block Name : Look At The Table And Tell

Q6 See how the earth is looking. Can you see the surface of the moon? Do you have some questions after looking at this picture? Write down those questions and discuss them in the class.



Answer. The earth is looking spherical in shape. Yes, I can see the surface of the moon. The following questions arise in my mind after looking at this picture:

(i) Who took this picture?

(ii) Is there any life on the moon?

(iii) Whether we can see different countries on earth from the moon?

Page: 107, Block Name: Look At The Table And Tell

Q1 Why do children always slide down the slide and not slide up? If this side where there in Sunita's space, would children slide like this? Why?

Answer. Children always slide down the slide of the earth's gravitational force However, if this slide were there in Sunita 's spacecraft, children would not slide like this because there is no gravitational force in the space.

Page : 109, Block Name : What We Have Learnt

Q2 Why do we see stars mostly at night?

Answer. Stars are mostly seen at night because there no sunlight in the night. Thus, the light coming from the stars could reach us and we are able to see them.

Page : 109, Block Name : What We Have Learnt

Q3 Looking at earth from space, Sunita's said, "Different countries cannot be seen as separate from her. These lines are on paper. They are made by us. What do you understand by this?

Answer. Sunita wanted to say that the land on earth divided in the different countries just on paper. It is actually in our mind. There is no such differentiation in reality. Earth is all intact. So, looking at earth

from the space, the earth looks quite different.

Page : 109 , Block Name : What We Have Learnt