

# NCERT SOLUTIONS

CLASS - 5th



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Class : 5th  
Subject : Environmental Studies  
Chapter : 15  
Chapter Name : Blow Hot, Blow Cold

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Q1 Have you warmed your hands in winter by blowing on them when they are cold? How does it feel?

Answer. Yes, I often warm my hands in winter by blowing on them when they are cold. It feels warm and cozy.

Page : 141 , Block Name : Do This

Q2 Blow hard from your mouth onto your hands. How did you find the air from your mouth as compared to the air around? Was it hotter, or cooler?

Answer. On blowing hard from the mouth on to the hands, the air from the mouth feels hotter as compared to the air around.

Page : 141 , Block Name : Do This

Q3 Now put your hands at some distance from your mouth, and blow again. Does the air from your mouth feel warm? Why?

Answer. When the hands are placed at some distance from the mouth and the air is blown again, this time the air from the mouth does not feel much warm. This is because, due to the distance from the mouth, the air gets mixed up with outside air and thus becomes cooler.

Page : 141 , Block Name : Do This

Q1 Can you think of any other way in which you use the warmth from your breath?

Answer. Another way in which we can use the warmth of our breath is when someone gets swelling and redness in the eyes or some warm breath on a piece of cloth or handkerchief and quickly placing it in the woolen part or red eyes give some relief to the person.

Page : 142 , Block Name : Think And Tell

Q2 Fold a piece of cloth 3-4 times. Now bring it close to your mouth and blow hard on it. Did the cloth become warm?

Answer. Yes, the cloth has become warm.

Page : 142 , Block Name : Think And Tell

Q3 Balishtiye saw that the woodcutter was trying to cool the hot potatoes by blowing on them. What would have happened if he had eaten the potatoes without cooling them?

Answer. Eating the potatoes without cooling them could cause burns in the mouth.

Page : 142 , Block Name : Think And Tell

Q4 Have you ever burnt your tongue when you ate or drank something that was too hot? How do you cool some food when it is too hot?

Answer. Yes, I had once burnt my tongue on drinking very hot tea. When some food is very hot, I cool it by blowing on it, by keeping it in a broad container under a fan.

Page : 142 , Block Name : Think And Tell

Q5 If you were to cool these three hot things – dal, roti, rice – in which ways would you do so?

Answer. Dal, roti and rice can be cooled by keeping them in a broad container under a fan and also by blowing air on them from month.

Page : 142 , Block Name : Think And Tell

Q6 Picture 1-Mini tried to cool her tea by blowing on it. Which do you think will be hotter – Mini's tea or the air she blew from her mouth?



Answer. Mini's tea would be hotter as compared to the air blown from her mouth.

Page : 142 , Block Name : Think And Tell

Q7 Picture 2 – Sonu was feeling very cold. He kept blowing on to his hands. Now think and write, which will be cooler – Sonu's hand or his breath.



Answer. Sonu's hand will be cooler as compared to the air blown by him.

Page : 142 , Block Name : Think And Tell

Q8 For what other things do you blow air from your mouth?

Answer. The other things for which I blow air from my mouth are:

- (i) For whistling
- (ii) For playing with a firkin
- (iii) On erasing on the notebook with an eraser the rubber particles are removed by blowing air on them.
- (iv) For cleaning the spectacles.

Page : 143 , Block Name : Think And Tell

Q1 Make whistles of the things given below. Write in a sequence—from the loudest to the softest whistle.  
- Wrapper of a toffee \_\_\_\_\_

- A leaf \_\_\_\_\_
- A balloon \_\_\_\_\_
- The cap of a pen \_\_\_\_\_
- Any other thing \_\_\_\_\_

Answer. Apart from these, we can also whistle by putting fingers in our mouth. The sequence from the loudest to the softest whistle as follows:

- The cap of a pen
- By putting fingers in the mouth
- By wrapping of a toffee
- By a balloon
- By a leaf

Page : 143 , Block Name : Blow In Different Ways

Q2 Have you seen people playing different musical instruments like flute, dholak, been ....., guitar, mridang, etc. Can you recognise their sounds with your eyes closed? Find out more about these musical instruments. Collect their pictures too.

Answer. Yes, I have seen and can recognize the sounds of flute, dholak, been, guitar, mridang etc. These instruments are discussed below:

(i) Flute: It is made up of wood and it is played by blowing air from mouth.



(ii) Dholak: It is made up of wood and leather and it is played by tapping hard by both hands.



(iii) Been: It is made up of wood and played by blowing air from mouth.



(iv) Guitar: It is made up of wood and metal strings and played by fingers.



(v) Mridang: It is made up of wood and copper and it is played by tapping hard by both hands.



Page : 144 , Block Name : Blow In Different Ways

Q1 Can you name some things which produce melodious or pleasing sounds when we blow into them.

Answer. Some of the things which produce melodious or pleasing sounds when we blow into them are been flute, pungi, shehnai, banjo etc.

Page : 144 , Block Name : Write

Q1 Have you seen someone blowing on their spectacles to wipe them clean? How does the air from the mouth help in cleaning the spectacles?

Answer. The air blown from the mouth is hot and the glass of the spectacles is comparatively colder. The hot air we breathe out contains water vapors which turn into tiny droplets of water when it comes in contact with the colder glass. This makes the glass moist and hazy.

Page : 144 , Block Name : Do This And Discuss

Q2 Take a glass. Bring it near your mouth and blow hard on it. Do this two or three times. Does the glass look hazy?

Answer. Yes, a mirror can also make hazy in the same way. On blowing air from the mouth on the mirror, the mirror becomes moist. The air blown from mouth is hot and the mirror is cold. The hot air that we breathe out contains water vapors which turn into tiny droplets of water when it comes in contact with the colder mirror. This makes the mirror moist and hazy. The air blown from the mouth is wet.

Page : 144 , Block Name : Do This And Discuss

Q3 Can you make a mirror hazy in the same way? Can you tell by touching the mirror what made it hazy? Is the air you blew from your mouth dry or wet?

Answer. Yes, I can make a mirror hazy in the same way. On touching the mirror some moisture sticks to fingers also which shows that the moisture turned the mirror hazy. It also shows that the air blow from my mouth is wet.

Page : 144 , Block Name : Do This And Discuss

Q4 Put your hand on your chest. When you breathe in, does your chest come out or go in. Measure your chest.

- Take a deep breath in
- Ask your friend to measure your chest with a thread. Measurement \_\_\_\_\_
- Now breathe out. Again ask your friend to measure your chest. Measurement \_\_\_\_\_
- Was there any difference in the two measurements of your chest?

Answer. On putting the hands on the chest, when I breathed in, my chest comes out.

Measurement of the chest on taking a deep breath is 24 cm.

Measurement of the chest on taking breath out is 20 cm.

Yes, there is a difference in the measurements. The chest comes out and measures more on taking a deep breath and it goes in and measures less on breathing out.

Page : 144 , Block Name : Do This And Discuss

Q1 Put your finger under your nose. Can you feel any air when you breathe out from your nose?

- Count how many times in one minute do you breathe in and breathe out.
- Jump 30 times. Did you feel breathless?
- Now again count how many times in one minute you breathed in and out.
- What was the difference in your count before and after jumping

Answer. Yes, I can feel the air when I breathe out from your nose.

- On counting, I breathe in and out for about 20 times in a minute.
- Yes, on jumping I feel breathless.
- On counting after jumping, I breathed in and out for about 26 times.
- I breathed about 6 times more after jumping. The difference in the count before and after jumping shows that the breathing rate increases after jumping.

Page : 145 , Block Name : How Many Breaths In One Minute

Q1 You have all heard the ‘tick-tick’ of the clock. Have you seen a doctor using a stethoscope to listen to our chest? What do you think she hears? Where is the sound coming from? Is there a clock inside your chest that keeps ticking away?

Answer. Yes, I have seen a doctor using a stethoscope. She hears the heart beat by using stethoscope. This sound comes from our heart. No, there is no clock inside our chest that keeps ticking away, but a heart lies in the left side of the chest that beats continuously.

Page : 145 , Block Name : The Clock Inside You

Q2 Do you want to listen to your heartbeat? Take a rubber tube as long as the distance from your shoulder to your elbow. At one end of the tube fix a funnel. Place the funnel on the left side of your chest. Put the other end of the tube to your ear. Listen carefully. Did you hear a dhak dhak sound?

Answer. Yes, I can hear the dhak dhak sound.

Page : 145 , Block Name : The Clock Inside You

Q1 Hang this snake near a hot thing. For this you can take hot tea, water or a burning candle. Now see from the top, in which direction the snake moves.

- Whenever the air flows upwards it will move in a clockwise direction. When the air flows downwards the snake will move in the opposite direction.
- Stand with this snake below a fan. Look in which direction it moves. Take this paper snake to different places and observe its movement.
- Can you understand from the movement of the snake - if the air is moving upwards or downwards?

Answer. On taking this snake below a fan, it moves in the anticlockwise direction. This is because, here the air is moving downwards.

- Yes, the direction of the air can be easily understood by observing the movement of the snake. If the snake moves in the direction of the clock it shows that the air is moving upwards. When the snake moves in the opposite direction this shows that the air is moving downwards.

Page : 146 , Block Name : Snake Tells The Flow Of Air!

Q1 While playing, Amit hit a wall. His forehead was swollen. Didi immediately folded a scarf (4-5 times), blew on it and kept it on Amit's forehead. Why do you think didi did this?

Answer. After hitting on the wall. Amit's forehead would have swollen and become hotter. Didi folded a

scarf, below on it and kept it on Amit's forehead because she might have learnt this from her elders but it is a wrong practice. Actually it does not cure the pain, but on blowing, the scarf becomes a little warmer and gives some relief to the pain and swelling.

Page : 146 , Block Name : What We Have Learnt

Q2 We blow to cool hot things as well as to warm them. Give examples of each.

Answer. Example, when we blow to cool hot things:

(i) A cup of tea

(ii) any hot food etc.

Example, when we blow to warm a cold thing:

Our hands in the winters.

Page : 146 , Block Name : What We Have Learnt