

## Environmental Studies

### (Chapter – 10) (Walls Tell Stories)

(Class – 5)

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**Think:**

**Question 1:**

Why were bastions made in the fort wall?

**Answer 1:**

Bastions were made in the fort wall to ensure security of the fort.

**Question 2:**

Why were big holes made in them?

**Answer 2:**

Big holes were made in them to increase the viewing area and the soldiers peeping through it could have a better vigilance.

**Question 3:**

What difference would be there if you were to look from a straight flat wall or a bastion at a height? How would the soldiers find peeping from the holes in the bastions useful while attacking?

**Answer 3:**

Bastions are made in such a manner that soldiers can peep through its holes safely and can have a better vantage point which is not possible in case of a straight flat wall.

**Think and discuss:**

**Question 4:**

How would the fountains have worked?

**Answer 4:**

Fountains would have run through the water supplied by large tanks.



**Question 5:**

What arrangements would have been made in the building for air and light?

**Answer 5:**

Large windows, doors and ventilators would have been made for air and light.

**Question 6:**

Look carefully at the picture of the beautiful carving on the wall. What kind of tools would have been used for such fine carving?

**Answer 6:**

Chisel and hammer made up of iron would have been used for such fine carving

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**Question 8:**

We still do not have any electricity at many places in our country. Even at places which do have electricity, imagine what would happen if there was no electricity for one week. What are the things that would be difficult to manage without it?



**Answer 8:**

If there is no electricity in our city, there would be great scarcity of water. We would not be able to use TV, computers etc. Even the mobile phone would not work. Work in offices etc. cannot be possible either. In other words, life will come to a stand-still.

**Where is east-west?****Question 9:**

At the place you are, where does the sun rise? Where does it set? Where you are standing, find out what all is there to your east. What all is there to your west? Also find out, what places are to your north and south.

**Answer 9:**

Sun arise in the east and sets in the west. Right now I am standing in my classroom and from here the main gate of the school is in east and playground is in west. In north, there are other class rooms and in the south there is the administrative block.

**Tell and write:****Question 10:**

Look carefully at the map of Golconda. On the map, arrows show all the four directions.

- (a) If you are peeping inside from Bodli Darwaza, in which direction from you is Katora Hauz?
- (b) If someone is entering from Banjara Darwaza, in which direction from her is Katora Hauz?
- (c) In which direction will you walk from Bala Hisar to reach Moti Mahal?
- (d) How many gates can you see on the outer walls of the fort?
- (e) Count how many palaces are there in the fort?
- (f) What arrangements for water can you see inside the fort? For example, wells, tanks, stepwells.



**Answer 10:**

- (a) Katora Hauz is in north of Bodli Darwaza.
- (b) In west direction.
- (c) If we walk in the east of Bala Hissar, we will reach Moti Mahal.
- (d) There are nine gates on the outer walls of the fort.
- (e) There are three palaces in the fort.
- (f) For water, five baolis and three hauz have been made.

**Question 11:**

On the map, 1 cm distance is equal to a distance of 110 metres on the ground. Now tell

- On the map the distance between Bala Hisar and Fateh Darwaja is \_\_\_\_ cm. On the ground, the distance between the two would be \_\_\_\_ metres.
- How far is Makai Darwaza from Fateh Darwaza?

**Answer 11:**

- Distance between Bala Hisar and Fateh Darwaja will be 880 meters.
- Makai Darwaza is About 1000 metres far from Fateh Darwaza.

**Discuss:****Question 12:**

Have you recently read or heard about any country attacking or going to war with another country?

**Answer 12:**

I recently heard Russia attacking Ukraine.

**Question 13:**

Find out what was the reason for this war.

**Answer 13:**

Russian wanted to stop Ukraine to joining the NATO organisation.



**Question 14:**

What kind of weapons were used in this war?

**Answer 14:**

In this war, many sophisticated fighter planes, tanks, helicopters, machine guns, explosives etc. were used.

**Question 15:**

What kind of destruction was caused because of this?

**Answer 15:**

There was a huge loss of life and property. Many people were killed and a large number of buildings etc. were ruined.

**Find out:****Question 16:**

The big gun that Shreedhar saw was made of bronze.

- Have you seen anything made of bronze? What? Tribal people have been using bronze to make many things since thousands of years. One wonders how they took out copper and tin from the deep mines, melted these metals, and turned them into beautiful things!

**Answer 16:**

Yes, I have seen idols, medals, cannon and decorative goods made up of bronze.

**Question 17:**

Find out from your elders about some of the things made from bronze that were, or are still used in your house. From its colour try to identify which one of them is made from copper, which from brass, and which from bronze?

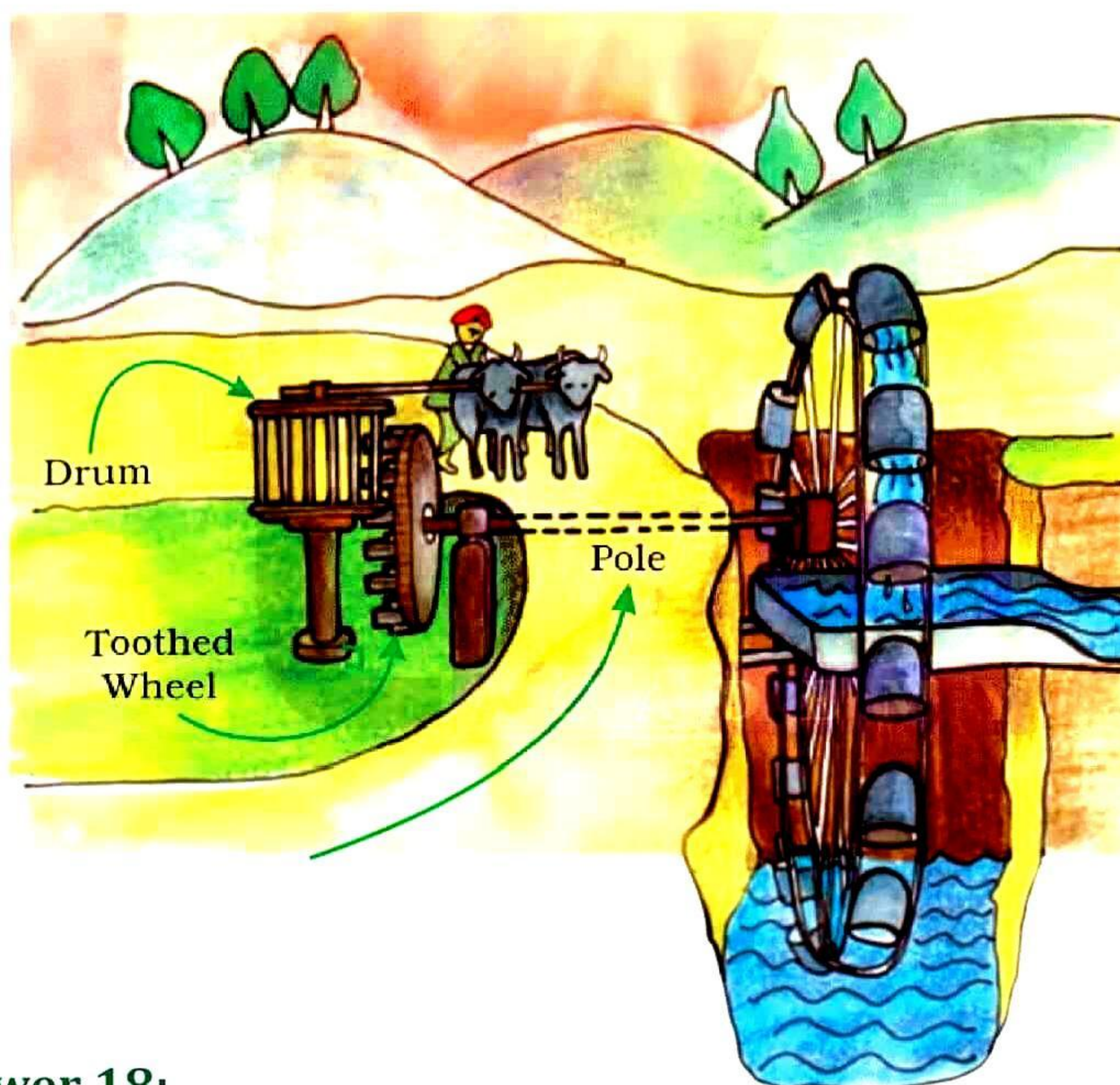


**Answer 17:**

There are many idols and decorative goods, which are still used in our house. Goods made up of copper are of reddish-brown in colour, brass goods are yellow while those made up of bronze are shiny grey black in colour.

**Arrangements for water:****Question 18:**

The picture shown here is made after seeing a very old painting of those times. Can you think why bullocks have been used here?

**Answer 18:**

Bullocks are used to uplift the water.



**Question 19:**

Use your hand movement to show in which direction the drum attached to the rod moves when the bullocks move.

**Answer 19:**

The drum will move in anti clock direction.

**Question 20:**

In which direction would the 'toothed wheel' move?

**Answer 20:**

It will move in clockwise Direction.

**Question 21:**

Now imagine, how would this garland of pots lift water from the well?

**Answer 21:**

The bullocks move the drum, which in turn moves the toothed wheel. From this wheel garland wheel is connected through a rod. So as the toothed wheel moves, it rotates the garland wheel and thus water is lifted from the well.

**Question 22:**

Do you now get some idea about how the tanks could have been filled by lifting water from the wells?

**Answer 22:**

Yes, the tanks could have been filled up by lifting water from the wells using this technique.

**Question 23:**

Where else have you seen such wheels attached to each other. For example, in the gear of a cycle or somewhere else?



**Answer 23:**

Besides cycles, I have seen such attached wheels in old mechanical watches, clock, sewing machine, generators, and in heavy machines.

**Question 24:**

Look around and find out how water is pumped up from the ground to higher places?

**Answer 24:**

These days water is pumped up using boring machines, windmill etc. Somewhere, especially in villages, traditional method like using bullocks are also used.

**Question 25:**

How is water pumped up using electricity? How is water lifted without electricity?

**Answer 25:**

The electric machines absorb underground water through tube well pumps it up. Without electricity, water can be lifted using buckets and ropes, windmill and also using bullocks.

**Close your eyes and go back in time!:**

**Question 26:**

What is the Sultan doing in the palace? What kind of clothes is he wearing? What dishes are being offered to him? But why does he seem so worried? And in what language is he talking?



**Answer 26:**

Sultan is in a meeting with his ministers. He has worn an elegant dress and many jewels. Many types of sweets, drinks and muglai food are being offered to him. But he seems worried due to the invasion of enemies on the fort. He is talking in Persian.

**Question 27:**

Imagine the rooms in the palace—the beautiful carpets and curtains, the fountains on the terrace... and the sweet smell of roses and chameli — where is this coming from?

**Answer 27:**

The palace is looking grand. The rooms are decorated by beautiful carpets and curtains. Fountains are running on the terrace. Sweet smell of roses and chameli are coming from the garden.

**Question 28:**

What are the different kinds of factories you can see? How many people are working there? What are they doing? What are they wearing? How long do you think they work?

**Answer 28:**

I can see the factories of clothes, utensils, idols, decorative goods and arms. On an average 20 people are working there. They are preparing the goods and have worn tight clothes. I think they would work from early mornings to late in the evenings.

**Question 29:**

Look there! See how finely those craftsmen are carving the stones using a chisel and hammer? Can you see the stone dust in the air. Do you think this stone dust would harm them in some way?



**Answer 29:**

No, this stone dust would not be causing any harm to them as they have wrapped a cloth around their nose and mouth.

**Write:**

**Question 30:**

What kinds of pots have you seen around you?

**Answer 30:**

I have seen pots made up of steel, iron, brass, glass, fibre, aluminum and plastics.

**Question 31:**

Try to find out from your grandparents about the other kinds of pots and pans they used in their time?

**Answer 31:**

In the time of our grandparents pots and pans made up of brass, clay, iron and copper were used.

**Question 32:**

Have you ever been to some museum or heard about it? What all things are there in a museum?

**Answer 32:**

Yes, once I visited a museum. Antiques of historical importance are kept in a museum.



## **Survey and write:**

### **Question 33:**

Is there any old building or monument near your house which people come to see? If yes, name it.

### **Answer 33:**

Yes, there is a tomb near my house. Many people come to see it.

### **Question 34:**

Have you ever gone to see an old monument? Which was that? Did you feel it told you a story? What could you know about those times from it?

### **Answer 34:**

Yes, once I went to Agra to see Taj Mahal. I felt as if it was telling the story of its times. we could know about the culture, art, sculpture etc. of that times from it.

### **Question 35:**

How old was it? How did you know?

### **Answer 35:**

It was about 350 years old. I came to know from my history book. Though it was also mentioned on the inscription over there.

### **Question 36:**

What was it made of?

### **Answer 36:**

It was made up of marbles.



**Question 37:**

What colour was it?

**Answer 37:**

It is of white colour.

**Question 38:**

Were there any special kind of designs on the old building? Draw them in your notebook.

**Answer 38:**

Students are directed to draw design that they saw on the wall of Taj Mahal.

**Question 39:**

Who used to live there in the olden days?

**Answer 39:**

Nobody used to live there.

**Question 40:**

What kinds of activities took place there?

**Answer 40:**

Taj Mahal is a tomb where graves of Mughal emperor Shahjahan and his wife Mumtaz Mahal are buried.

**Question 41:**

Do some people still live there?

**Answer 41:**

No.



**Look at the painting and tell:**

**Question 42:**

What kinds of work are people doing?

**Answer 42:**

People are seen affixing bricks, carrying goods and water etc. for construction.

**Question 43:**

How many men and women are working?

**Answer 43:**

Thirty-six men and four women are working.

**Question 44:**

See, how they are taking the huge pillar up along the slope? Is it easier to lift a heavy thing straight up or along a slope?

**Answer 44:**

It is easier to lift a heavy thing along a slope.

**Question 45:**

Were you able to see the man carrying water in a mashak (leather bag)?

**Answer 45:**

Yes.

**What we have learnt:**

**Question 46:**

Sangeeta thinks it is useless to keep old things in a museum. How would you convince her that it is important to have a museum?



**Answer 46:**

From the antiques kept in museum, we came to know about our culture and heritage. It helps us to know about our culture, art and literature, science and technology etc. and we can learn a lot of these. So, it is very important to have a museum.

**Question 47:**

Why do you think the chapter is named, 'Walls Tell Stories'?

**Answer 47:**

It is because every historical structure is a witness of the their art, culture science and technology and thus appears to tell the stories of that time.