

Period-1	Duration= 35 minutes
Sub Topic- Iron in India "Past / Present • The sword of a tiger - Tipu Sultan • Abandoned furnaces • Iron steel factories in India	
Learning outcome(s):- The students will be able to know about our prosperous history of metallic uses. They will explain about iron & steel factories of India.	
Key Vocabulary • Wootz : A type of crucible steel having higher carbon content. • Smelting : The process of metal extraction process. • Bellows : A device or equipment that can pump air.	
Skill Developed- Understanding, explaining describing, Analyzing.	
Opening set induction	Duration 5-6 minutes
Opening strategy :- demonstration /Q.A. Teacher shows the items of iron in front of student & asks the question. (1) What am I holding in my hands? (2) Which metal is used in this train and bus etc. (3) Name any 10 items made of iron?	
Link Statement:- Let us know about the history of iron & its uses and making of it from ore to usable metal.	
Instructional methodology:-	Duration-15 to 20 min.
Teaching Strategy(ies):- Explain /Q.A. /discuss Explanation:- Dear children we have gone through the Anglo Mysore was where Tipu Sultan showed his bravery with his sword. Another interesting fact about him is that he was the expert in iron metallurgical techniques. The king of Mysore fought four wars & died with bravery having sword in his hand. His miraculous word was made by special made high carbon steel wootz which was produced all over south India. There were so many local iron smelting furnaces. Wootz this word has been derived from Kannada word ukku, Telugu hukku meaning steel. It was so popular that Michel Farady came & studied here for four years but this steel disappeared very soon. Again the forest laws made by Indian are guilty here because these furnaces needed charcoal & because of laws now forest were not the property of public. People could not enter without permission & could not cut trees for making charcoal. It created the problem of wood for making charcoal for furnaces. Men & women both who were indulged in this system became unemployed. If they went secretly they could not continue their business. So many of them gave up their craft & looked for and joined other means of livelihood. Now in the new form of trading iron was being imported from Britain for industrial production. Some of them who went with this tradition they also faced a new problem not a problem a competition. I am not saying there was a problem. But slowly the	

picture was changing in India.

Now the big industrialist family Tata was also searching for a new area where they could find a huge source of iron one because they wanted to setup a new iron & steel making factory. The team of two from Tata's searched for it. After travelling for hundreds of KM they could not find better one when they found it near Rajahara hills a group of people, carrying baskets of iron are they became very happy but an essential components water was not easily available. They continued their search then they found it nearby to River Subarnrekha. The city established over there was known as Jamshedpur. This iron was sent to Tata Bhilai plant. They were very fortunate to start a new factory named as TISCO in 1912. It started production. During this age Railway Machine all were being produced with the need of lot of iron. Suddenly first world war broke out so our iron /steel companies started exploring iron to rest of the world and the picture was changed. Earlier they were seller and we were buyer but TISCO had changed the picture we were sellers and the British were buyers.

Closure

Duration -5min.

Closure strategy:-Verification (Think and Answer)

(1) Which steel was used to make Tipu Sultan's sword?

(2) Why were people not able to take wood for making charcoal during the British?

Assignments:

Q. 1 Define the following words

(1) Wootz

(2) Agaria

Q.2 Fill in the blanks -

(1) The iron & steel making company _____ was started in 1912.

(2) _____ war changed the picture of iron trading in 1914-15.

(3) _____ the scientist of Europe visited the old iron smelting furnaces in south India.

Q. 3 Answer there question :

(1) Explain the set up process of TISCO in India.

(2) Why were Local furnaces left abandoned in villages? Write a note.

(3) Describe the process of making of wootz?

(4) Who is the owner of TISCO ? Write his role in our development.