01. Metal and Mighty Machines - Student Copy

Name: Block: Date:

It doesn't matter how old you are, this show is always fun. "In the Steel Mill" covers some of the way that material is turned into products for companies to purchase and use (sheet metal, rod, plate, etc). Once you get used to the silly voices this is probably one of my favorite videos showcasing some of the procedures and careers available in how steel is created. In the jewelry or art metal class? This all still applies as we need a raw to get raw materials somehow!

Video: Mighty Machines - At the Steel Mill - https://youtu.be/KJ6nkouqlbl

Questions to answer from the video:

1) Machines make a lot of things easier that we could not as humans physically do.

What specific system does a Slab Hauler use to pick up Slabs of Steel? *hint* It isn't Pneumatic but works in a similar way.

Answer:

2) The coal is gathered and sent to the coke oven. What does the steel mill use smelly ground up coal for?

Answer:

3) What are the ingredients that are added into the blast furnace when cooking?

Answer:

4) Why don't the torpedo cars that transport the molten red hot iron melt?

Answer:

5) Scrap metal Recycling means that old material doesn't get wasted or sit in a garbage dump. What does scrap metal get mixed with in the furnace in this video?

Answer:

6) Why would we use steel rather than just iron?

Answer:

7) Why do they use a loud siren when the steel crane starts lifting in the mill?

Answer:

8) How do the slabs turn into the correct shape when being cast?

Answer:

9) Slabs are marked with a number to help with inventory and to get ready for the next step which is creating things from the steel. List 5 objects you see on a daily basis that at one time was probably a steel slab!

a)
b)
c)
d)
e)

10) What did the rolling mill do to the slabs?

Answer:

11) **Bonus - What famous big ship was weakened due to an unknown coal fire in it's hull that eventually led to a tragic event. Cite your sources!