

CONNECTICUT STATE DEPARTMENT OF EDUCATION
Division of Instruction
Hartford

SHOP THEORY FOR THE MACHINE TRADES

SUBJECT: Metallurgy of Iron and Steel

SESSION 3.

Audio Visual Lesson

OBJECT: The Sotry of Steel

METHOD: Run film, U.S. Bureau of Mines, #218.S14, "THE DRAMA OF STEEL."
Sound, 16 m.m., 40 min., followed by discussion and questions

STUDENT ASSIGNMENT

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Name of Student _____ Date _____

Instructor _____ Grade _____

Questions - Metallurgy of Iron and Steel
Session 3, Audio Visual Lesson, The Story of Steel

Answer briefly the following questions:

1. Give one good reason why, in your opinion, taking the time to view this film was or was not time wasted.
2. Give one idea or fact, gained from seeing this film, that was new to you.
3. List the necessary parts of the apparatus, materials, and methods used in the primitive furnace used in making iron.
4. What are the approximate temperatures at the top and bottom of a blast furnace that is in operation?
5. What is the reason for the brilliant display of fireworks that a Bessemer converter produces?
6. Does the speed of drawing and rolling increase or decrease as the product gets smaller in section?
7. What is meant by cold working?
8. What heat treatment is often necessary between "passes" to remove brittleness of steel in the cold working processes?
9. How is slag removed from open hearth steel?
10. What is the reason for bottom pouring of steel ingots?