

HOW DO THEY... *Recycle Steel?*

A National Film Board of Canada Production



How Do They...?

"Splendid attention grabbers, complete ideas presented with intelligence and style in a compact time period."

—Toronto Sun



How Do They...Recycle Steel? is one of a series of short and snappy videos that reveal the mysteries behind how everyday things happen.

Each of these fascinating little videos is without words, making them ideal cross-curricular aids for teachers. And the videos answer questions that kids often ask!

In **How Do They...Recycle Steel?**, sparks fly and molten metal runs white hot on its way from scrap to fresh steel. A user's guide is printed on the back of this videojacket.

Director: Tina Keeper
Producer: Jennifer Torrance
4 minutes
Order number: C0199 209

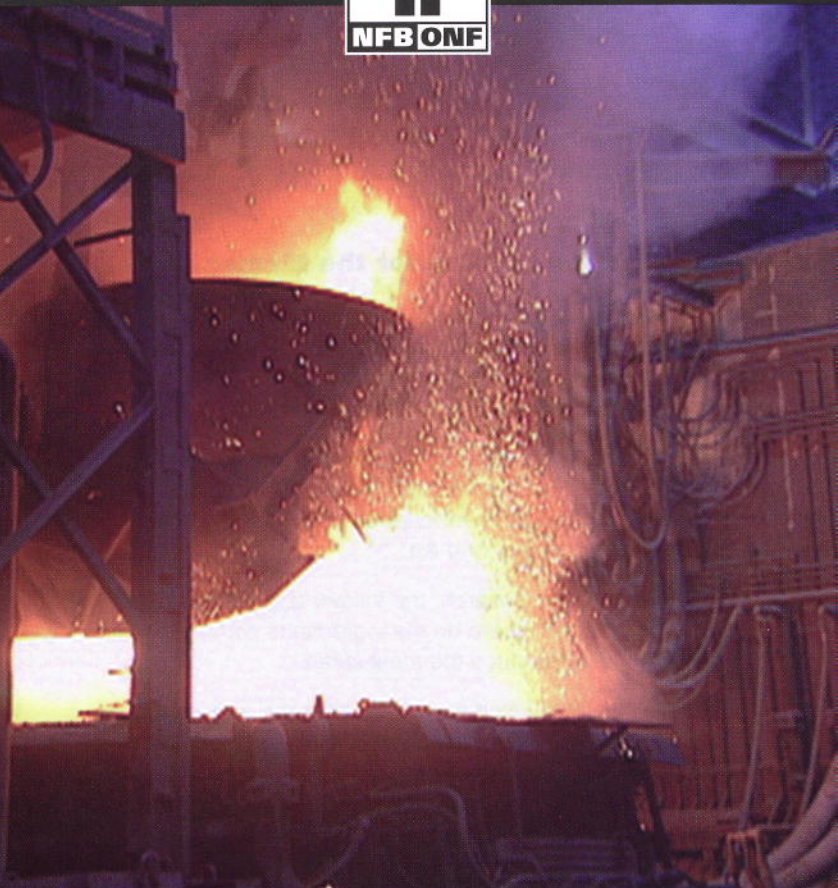
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**HOW DO THEY...
*Recycle Steel?***



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VHS
C0199 209

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This guide explains what you see on-screen during this **How Do They...?** video, and it offers suggestions for classroom use.

Suggested Activities for the Elementary Classroom

This video explains one of the simple mysteries in life, encourages creativity and can be used in a variety of ways to enrich elementary classroom activities.

The following are suggested activities for Language Arts (to aid in descriptive writing and in sequencing), Social Studies (examining the importance of primary and secondary industries) and Art.

1. Have the class research the following questions: What is steel made of? Where do the ingredients come from? What countries produce the most steel?
2. Have students watch the video, describe and write down the process, then watch the video again. What parts did they miss? What things did they notice the second time? Use the description on this videojacket to help in this exercise.
3. Investigate the properties of steel. What qualities of steel make it so useful? What are some things that are made of steel? Is there anything that is stronger than steel? What are some things that can bend, break or change steel?
4. Have students research and explore unusual words such as *billet*, *molten*, *malleable* and *alloy*. Can they use them in a poem, descriptive paragraph or short story?

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4 minutes

Order number:
C0199 209



Recycling Steel

A large round magnet picks up a batch of used steel and dumps it into a vat. The vat moves on an overhead rail, taking the steel to the furnace. As the steel is dumped in the furnace, sparks, smoke and flames billow out. Once the lid is on, only light flashes and sparks escape.

Molten, flaming steel pours out and travels along two gutters as water sprays across it. The red-hot billets are cut into lengths with a blue-white jet of heat. They flip off the conveyor belt onto another belt with a large clamping device at one end. This device rounds and stretches the billet and guides it into another furnace.

After being reheated, the billet moves along a belt through a series of machinery pieces that resemble a train. As it moves quickly through each piece, the steel gets shaped further, as water sprays and steam billows. The steel comes out at the end in a long thin sheet that is cut to size by a guillotine-like chopper.

The sheets travel down a conveyor belt in groups of five to a cooling station. Once cooled, they are cut into lengths and moved by a long magnet to storage and shipping.

The entire **How Do They...?** series is available from the National Film Board of Canada. Titles include **How Do They...Braid Rope? ...Put the Centers in Chocolates? ...Knit a Chain-Link Fence? ...Make Potato Chips? ...Recycle Steel? ...Make Money? ...Make Oatmeal Cookies? and ...Recycle Paper?**