HOW DO THEY...

Put the Centers in Chocolates?

How Do They...?

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

—Toronto Sun

How Do They...Put the Centers in Chocolates? 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. Ideal for teachers, *How do they...?* works across the curriculum. And the videos answer questions kids often ask!

How Do They...Put the Centers in Chocolates? takes us on a visit to the factory to see the nuts and bolts (and cocoa!) of how these sweet treats are made.

User's quide inside!

Director: Don White Producer: George Johnson

4 minutes, 47 seconds Order number: C0197 164

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The Details

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) and for Social Studies (examining the importance of primary and secondary industries).

- 1. What are the main ingredients in chocolate and where do they come from?
- 2. How is chocolate made?
- Have the students watch the video, describe and write down the process and then watch the video again.
 Use the description on this videojacket to help in this exercise.
- 4. Describe the machinery used.
- 5. Research and explore difficult words such as: enrobing, moulding and crystallize.

Putting the Centers in Chocolates

Two different processes are used in chocolate manufacturing: enrobing (chocolate coating an already firm center) and moulding (chocolate around a liquid center).

Enrobed centers start as ingredients cooked into a thick liquid which is then poured onto a turntable where the

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Cinematographer: Ken Kuramoto

> Editor: Shirley Anne Claydon

Sound Design: Gael Maclean

Producer: George Johnson

> Executive Producer: Svend-Erik Eriksen

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sugar is allowed to crystallize. When the material has solidified, the turntable kneads it. Then additional ingredients, like syrup, are added.

This "dough" is then forced through an extruder which shapes it and cuts it into individual solid centers.

These centers now proceed to coating, first passing through a chocolate "footbath" to acquire a chocolate bottom, then moving down a refrigerated belt to harden the bottom, then through a chocolate "shower" which covers the top and sides.

If the shape of the chocolate is not sufficiently distinctive to allow its center to be identified, identifying swirls are put on the top either by machine or hand.

The coated chocolates then travel through a cooling tunnel, where the surface hardens. Finally, the chocolates are packed.

Chocolates produced in moulds follow a different process.

Empty trays are first filled with liquid chocolate which will form the outer shell.

The trays are then inverted, spilling out most of the chocolate.

In order to harden this outer shell, the trays are cooled before the liquid center is poured in — leaving just enough room for a chocolate bottom.

Agitation of the trays removes any trapped air.

With the center beginning to firm, a chocolate "foot" is poured on and the tray moves into a long cooling tunnel.

At the other end of the tunnel, the trays are inverted and mechanical tampers tap the chocolates from the mould onto a short conveyor belt at the end of which they are packed in boxes.

The entire **How Do They...?** series is available from the National Film Board of Canada. **To order, call 1-800-267-7710** (Canada) or 1-800-542-2164 (USA).