

How Is It Made?

Reading Comprehension & Process Analysis: Chocolate Manufacturing

Instructions: Read the passage below carefully. Then, answer the comprehension questions on Page 2.

From Bean to Bar: The Journey of Chocolate

Chocolate is one of the world's most beloved sweet treats, but very few people know that every delicious chocolate bar begins as a colorful pod growing on a tropical tree! The manufacturing of chocolate is a delicate process that combines agricultural tradition with advanced modern food science.

The process begins on cocoa farms located near the equator. Farmers carefully cut ripe cacao pods from cacao trees using sharp knives. Inside each colorful pod lies sticky white pulp surrounding about 30 to 50 bitter seeds, known as cocoa beans. These beans are scooped out and covered under banana leaves for several days to **ferment**. During fermentation, the beans develop their rich chocolate flavor and turn dark brown. Afterwards, they are spread out under the hot sun to dry completely before being packed into burlap sacks and shipped to factories worldwide.

Once at the factory, the dried cocoa beans are cleaned and roasted in large industrial ovens at high temperatures. Roasting unlocks deep aromatic flavors and loosens the outer shells. A process called *winnowing* then separates the light outer shells from the inner edible centers, known as cocoa nibs. Next, heavy steel rollers crush the cocoa nibs into a smooth, thick paste called chocolate liquor, which is made up of natural cocoa solids and creamy cocoa butter.

Finally, sugar, milk powder, and extra cocoa butter are mixed into the paste. The mixture undergoes **conching** - a continuous crushing and stirring process that lasts for hours to create an ultra-smooth texture. Lastly, the molten chocolate is carefully **tempered** (cooled and reheated precisely) so that it hardens with a glossy shine and a satisfying snap when broken. The liquid chocolate is poured into molds, cooled until solid, and wrapped for delivery to store shelves!

KEY VOCABULARY & PROCESS VERBS

Ferment: A chemical breakdown process by bacteria or yeast.

Winnowing: Blowing air to separate shells from inner cocoa nibs.

Chocolate Liquor: The pure, ground liquid paste of cocoa nibs.

Conching: Heavy mixing and grinding to smooth out texture.

Tempered: Controlled heating and cooling to create shiny, crisp chocolate.

Molds: Containers used to give liquid material a specific shape.

PART A: MULTIPLE CHOICE QUESTIONS (MAIN IDEA & DETAILS)

1. What is the main topic of the passage?

- A) How farmers plant cacao trees in tropical forests.
- B) The step-by-step process of turning cocoa beans into chocolate bars.
- C) Why eating dark chocolate is healthy for children.
- D) The history of how ancient civilizations ate cocoa.

2. Why are cocoa beans covered under banana leaves after being harvested?

- A) To protect them from rainforest birds and insects.
- B) To allow them to ferment and develop rich chocolate flavor.
- C) To cool them down before roasting in ovens.
- D) To wash away sticky white pulp with banana juice.

3. What is the purpose of the winnowing stage in the factory?

- A) To separate the outer shells from the inner cocoa nibs.
- B) To mix sugar and milk powder into the chocolate paste.
- C) To dry the beans completely under intense heat.
- D) To pour liquid chocolate into rectangular plastic molds.

4. What does the tempering process do to the final chocolate product?

- A) It turns cocoa nibs into dry white powder.
- B) It makes the chocolate harden with a glossy shine and clean snap.
- C) It removes all natural cocoa butter from the mixture.
- D) It adds extra fruit juice to make bitter chocolate sweet.

5. In paragraph 4, what does the process of "conching" involve?

- A) Wrapping finished chocolate in foil paper.
- B) Continuous crushing and stirring for hours to smooth texture.
- C) Picking fresh cacao pods from tall green trees.
- D) Roasting dry seeds inside industrial gas ovens.

PART B: PROCESS SEQUENCING (ORDER OF CHOCOLATE MANUFACTURING)

Number the steps below from **1 to 5** in the correct chronological order as described in the text.

Order (1-5)	Manufacturing Step
	Roasted cocoa nibs are winnowed to remove shells, then crushed into chocolate liquor paste.
	Ripe cacao pods are cut from tropical trees and their seeds are fermented under banana leaves.
	The chocolate paste is conched for hours, tempered, poured into molds, and cooled into bars.
	Fermented cocoa beans are sun-dried, packed into sacks, and shipped to chocolate factories.
	At the factory, dried cocoa beans are roasted at high temperatures in large industrial ovens.

Wayground Import Tip: Copy Part A (MCQs) and Part B (Reorder) into Wayground Quiz Creator to generate your live lesson report!