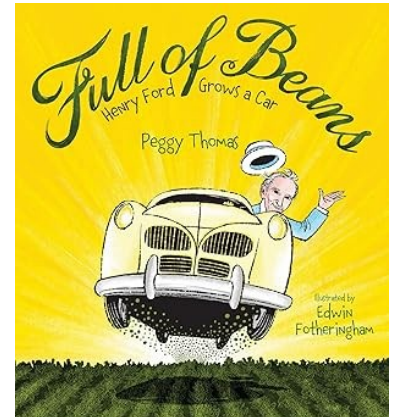




Full of Beans

Henry Ford Grows a Car

OVERVIEW: Henry Ford is known for manufacturing cars, but he was also intensely interested in agriculture, particularly how products could be made from soybeans. He sponsored intense experimentation and produced many products made from soy, including a car. In this book, students will learn about Ford's agricultural experimentation and about how plastic can be made from plants.



GRADES: 3-5

OBJECTIVES: The student will be able to:

- Describe Henry Ford's work to turn soybean oil into everyday products
- Explain the difference between a non-fiction history book and historical fiction.
- Write a brief scene for a movie based on the book, embellishing it with imagined details and dialogue that turn the story into historical fiction.

MATERIALS:

The book *Full of Beans, Henry Ford Grows a Car* by Peggy Thomas
Book question worksheet for each student

PROCEDURE:

Ask students if they have heard of Henry Ford. Ask what they think they know about him and display the answers.

Give each student a copy of the worksheet *Full of Beans, Henry Ford Grows a Car*. Ask them to listen for the answers to the questions on the worksheet while you read the book. Explain that they should write down their answers or notes they can use for answers afterward. After reading the book, give students a few minutes to complete their worksheet.

Discuss the worksheet answers. Ask students what questions they had and discuss the answers or how to find the answers.

Next, ask students for the definition of a non-fiction book versus a fiction book. Ask whether they think *Full of Beans, Henry Ford Grows a Car* is fiction or non-fiction.

Explain that the book is non-fiction because, according to the author's research, everything in the book was a fact, meaning it was true. Even the things people say, such as Henry Ford's quote "*Anything that can be grown for industry's raw materials will bring new revenue to agriculture,*" are facts. Show students the back of the book where author Peggy Thomas gives sources for quotes she uses and lists her research materials.

Ask students what historical fiction books they have read. Ask them how a historical fiction book differs from a non-fiction history book. A key part of historical fiction is that it's set in a real time period from the past. Authors pay close attention to how people lived, what society was like, and other details from that time. But the story, the dialogue, and often the characters are make-believe.

Sometimes, however, the characters in historical fiction are real figures from history and the events were real, but the author has embellished them with invented conversations and actions to make the story more interesting.

Explain that for historical fiction, the word *embellish* means to make a person or event more attractive, appealing, or interesting by adding imagined details.

Tell the students they are going to pretend that they are working on writing a historical fiction movie based on the book *Full of Beans, Henry Ford Grows a Car*. They are going to take a few events from the book and add details and conversations from their imaginations based on what they know really happened. The scenes should contain colorful images and interesting dialogue that will captivate the audience. Explain that the word *captivate* means to attract and hold someone's attention or interest; to charm, enchant, or fascinate. Encourage students to make their scenes as captivating as possible.

Ask students for suggestions of scenes from the book that when embellished with made-up details or conversation would make a scene exciting or funny.

TEACHER'S NOTE: The difficulty of this assignment should be based on the age and ability of your class. Younger students might write one paragraph or work together in pairs or as a group to create a scene. Older students might write a few paragraphs individually.

Here are some scenes from the book that could be captivating with added colorful details and dialogue:

- Garbage trucks dump seven tons of trash daily at the Ford factory
- What is happening inside the Greenfield Village vegetable laboratory, which is surrounded by heaps of produce?
- What do the people who live in Dearborn think about being surrounded by eight thousand acres of soybeans?
- You are part of a group watching when Henry Ford attaches a plastic trunk to his car and then smacks it with an ax.
- You are part of the crowd at Dearborn Day when Ford drives up in his yellow plastic car.
- You are part of the group invited to Ford's all-soybean dinner at the 1934 World's Fair in Chicago. (See back of book.)

When students have finished writing their scenes, ask them to share them with the entire class.

EVALUATION:

Completed *Full of Beans* book worksheet.

Completed historical fiction scene from book.

EXTENSION

Connect the use of biodegradable plastics and other renewable resources to the efforts to combat climate change by teaching the NJAITC lesson *The Greenhouse Effect*, available to download under Teaching Resources, Climate Change, at newjersey.agclassroom.org.

New Jersey Learning Standards

Science: 3:LS1.A 4:LS1.A 5:LS1.C

English Language Arts:

Grade 3: RI.CR.3.1 W.NW.3.3 W.WP.3.4 SL.PE.3.1 SL.PI.3.4

Grade 4: RI.CR.4.1 W.NW.4.3 W.WP.4.4 SL.PE.4.1 SL.PE.4.4

Grade 5: RL.CI,5.1 RI.AA.5.7 W.NW.5.3 W.WP.5.4 SL.PE.5.1

Social Studies Grades 3-5: 6.1.5.GeoHE.2, .6.1.5.EconEM.1, 2; 6.1.5.EconNE.4
5.1.5.EconGE.2

Engineering Design 3-5: ETS1.A ETS1.B

Climate Change 3-5: 4-ESSC-1 4-ESSC3-2 5-LS2-1

NAME _____

Full of Beans: Henry Ford Grows a Car

Listen for the answers to these questions while listening to the book:

Why did Henry Ford want to find a way to make products from soybeans?

How did Ford find enough soybeans for his experiments?

What was the first product Ford made from soybean oil?

What other products did Ford make using soybean oil?

What happened to Ford's soybean car?

Write down any questions you have after listening to the book.