**The relationship between agriculture and food, fiber, and energy**

**Pillar 2 H. Identify the historical significance of long-lasting family farms**

 (9th – 12th Grade)

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| **Website**: <http://www.agclassroom.org/teacher/matrix/lessonplan.cfm?lpid=416&grade=9&author_state=0> **Video**: <https://www.youtube.com/watch?v=mD5jnxhne7o>  |

**From Boom to Dust**

**Purpose**

Students will learn how the events of World War I helped spark the Great Depression, the Dust Bowl, and the resulting New Deal by watching a video and participating in a round robin, responding in writing to images and sound bites from the Dust Bowl, and observing a wind erosion demonstration.

**Materials**

**Activity 1**

* One of the following movies:
	+ [*Black Blizzard*](https://utah.agclassroom.org/cart/Details.cfm?ProdID=472&category=0)  or
	+ [*Surviving the Dust Bowl*](http://www.pbs.org/wgbh/americanexperience/films/dustbowl/)
* *Round-Robin Q&A Cards*

**Activity 2**

* Computers
* [VoiceThread](http://voicethread.com/)
* [Library of Congress Primary Source Set on the Dust Bowl](http://www.loc.gov/teachers/classroommaterials/primarysourcesets/dust-bowl-migration/)

**Activity 3**

* [FDR's Fireside Chat on the Dust Bowl](https://www.youtube.com/watch?v=HjwZz9t9INo)
* Two paper plates or pie tins
* Hair dryer
* 6" x 6" piece of sod
* 1 cup dry soil

**Essential Files (maps, charts, pictures, or documents)**

* [Surviving the Dust Bowl Round-Robin Q&A Cards](http://naitc-api.usu.edu/media/uploads/2016/03/04/Surviving_dustbowl_roundrobin_QA.pdf)
* [Black Blizzard Round-Robin Q&A Cards](http://naitc-api.usu.edu/media/uploads/2016/03/04/Black_blizzard_roundrobin_QA.pdf)

**Vocabulary**

**CCC:** Civilian Conservation Corps; a public work relief program that operated from 1933 to 1942 in the United States for unemployed, unmarried men from relief families as part of the New Deal

**Dust Bowl:** name given to the Great Plains region that was devastated by drought during the Great Depression

**New Deal:** the set of programs and policies designed to promote economic recovery and social reform introduced during the 1930s by President Franklin D. Roosevelt

**SCS:** Soil Conservation Service; federal agency now referred to as the Natural Resources Conservation Service (NRCS) that provides technical assistance to farmers and other private landowners and managers

**Black blizzard:** the term for dust storms during the time period of the Great Depression

**Bushel:** a unit of weight based on a measure of dry capacity (in the US that capacity is 8 gallons) commonly used for commodities; one bushel of wheat is equal to 60 pounds

**Drought:** an extended period of dry weather, especially a long one that is injurious to crops

**Dust bowl:** land once used for farming that has become a desert due to lack of rain

**Erosion:** the process by which the surface of the earth is worn away by the action of water, glaciers, winds, waves, and other natural forces

**Topsoil:** the fertile, upper layer of the soil

**Did you know? (Ag Facts)**

* The Dust Bowl of the 1930s encompassed approximately 150,000 square miles.
* More than 2.5 million people fled from the Dust Bowl region.
* Nearly 10% of those fleeing the Dust Bowl went to California.

**Background Agricultural Connections**

World War I required the ramping up of agricultural production and manufacturing, which pumped new life into the American economy. Unemployment numbers fell drastically between 1920 and 1929. The United States replaced Russia as a global agricultural supplier, and the prices for grain rose to an all-time high. Agricultural workers on the Great Plains, specifically in the southeastern region, including Colorado, Texas, New Mexico, Kansas, and Oklahoma, began taking out loans to buy more land and the latest farming equipment. Tractors allowed farmers to plant and harvest an acre in three hours rather than the three days it took by hand with manual labor. Millions of acres of native grassland, previously used for grazing, were converted into wheat fields to keep up with the rising demand.

**Interest Approach – Engagement**

1. Ask students to raise their hand if they have ever heard of the "domino effect." If possible, demonstrate by setting up a series of domino blocks in a visible place in your classroom. Explain that when the dominos are set up, they are all stable. Ask your students, "If I tip one block over, what will happen?" *(The remaining blocks will also fall.)* Demonstrate by knocking the dominos over.
2. Begin explaining to your students the historical background and context of the lesson. As you do, point out key events and set a domino up for each one you describe. For example, point out that during WWI, the United States replaced Russia as a global agricultural supplier and grain prices rose to an all-time high (set up a domino representing increasing demand for US grain). When farmers received high prices for their grain, they were motivated to buy and till more land (set up another domino). The invention of the tractor drastically decreased the amount of labor required to grow crops (domino). Following WWI, grain prices dropped, so farmers needed to plant and sell more in order to make a profit (domino). Millions of acres of perennial grasslands were tilled to plant annual grains (domino). In the 1930s, an extended drought began, and the crops failed (domino). When the crops failed, there were no plants in the tilled fields and millions of acres of bare soil lay vulnerable to wind erosion (domino).
3. Once the dominos are set up, ask your students if they can guess what major historical event was caused by the "domino effect" of all these minor events.*(Dust Bowl)* Introduce the lesson, explaining to students that they will be learning about an important agricultural event that influenced US history in many ways.

**Procedures**

**Activity 1: Video Exploration**

1. Select either [*Black Blizzard*](https://utah.agclassroom.org/cart/Details.cfm?ProdID=472&category=0) (based on the novel *The Worst Hard Times*) or [*Surviving the Dust Bowl*](http://www.pbs.org/wgbh/americanexperience/films/dustbowl/) to view with students.
2. After you have chosen a movie to show, cut apart and pass out the corresponding *Round-Robin Q&A Cards*. Explain that each card has a question and an answer to someone else’s question. Use the master copy as a key—questions and answers zigzag from the top left in descending order. The answer on the first card matches the question on the last card.
3. Show students the movie, and ask them to listen for the answers to their questions as they view the movie.
4. To start the round robin, ask one student to read the question on his or her card. The student with the answer should respond by reading the answer and then reading the next question. This process will continue until all the questions and answers have been read. As the students answer the questions, discuss the lingering effects of WWI that helped spark the Great Depression, the causes of the Dust Bowl, and the resulting New Deal. Try to help students discover parallels between the 1930s and other times of recession.
5. Ask students to respond to the following writing prompt about the Dust Bowl and Great Depression: Whose responsibility do you think it is to prevent another Dust Bowl? Explain.

**Activity 2: VoiceThread Analysis**

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1. Prior to starting this activity you will need to get a free account and create a [VoiceThread](http://voicethread.com/).
2. Post a variety of Dust Bowl photographs, diary entries, or sound bites to a VoiceThread using the [Library of Congress Primary Source Set on the Dust Bowl](http://www.loc.gov/teachers/classroommaterials/primarysourcesets/dust-bowl-migration/).
3. Have students respond in writing to the VoiceThread, taking time to analyze each post and step into the individual’s historic shoes. Ask students to consider the question,“What might it be like to live during the Dust Bowl?” while responding.

**Activity 3: Soil Erosion Trays**

1. Play the audio file of [FDR’s Fireside Chat on the Dust Bowl.](https://www.youtube.com/watch?v=HjwZz9t9INo)
2. Explain to students that they are going to gain firsthand knowledge of soil erosion by observing the following experiment.
3. In the front of the room, prepare two paper plates or pie tins. Pour one cup of dry soil on the first plate to represent dry, tilled soil. Place a piece of sod on the second plate to represent soil with ground cover.
4. Conduct a wind erosion demonstration. Place both plates on newspaper and use a hair dryer on low to simulate wind on both plates.
5. Discuss how root systems reduce erosion, and how the conversion of perennial grasslands into annual croplands helped create the Dust Bowl.

**Concept Elaboration and Evaluation**

After conducting these activities, review and summarize the following key concepts:

* The Dust Bowl was caused by a combination of farming practices that left the soil bare and a prolonged drought. It forced many farmers off of their land and caused many others to leave their homes to escape the dust storms.
* The New Deal included programs like the SCS to help support farmers in implementing soil conservation practices.
* Today, the NRCS continues to support farmers and other landowners in managing their soils responsibly.

**Enriching Activities**

* Pose the following question as a writing prompt: What would it be like to lose 65% of your family’s income? What things would change in your life?
* Use the embedded resources and questions from *Lesson 2: 1930–1949, From Defeat to Victory* in [Growing A Nation](http://www.agclassroom.org/gan/) as writing prompts.
* Watch the movie [*Dust Bowl: Grantsville, Utah*](https://utah.agclassroom.org/cart/Details.cfm?ProdID=208&category=0) and discuss the causes of the Utah dust bowl. Watch the 1955 CBS Documentary [*Dust Bowl*](https://utah.agclassroom.org/cart/Details.cfm?ProdID=207&category=0)to hear more firsthand accounts from survivors of the Dust Bowl.
* Have students read either *The Worst Hard Time* by Timothy Egan or *Grapes of Wrath* by John Steinbeck to help them make deeper connections to the Dust Bowl.

**Suggested Companion Resources**

* [Children of the Dust Bowl: The True Story of the School at Weedpatch Camp](http://www.agclassroom.org/teacher/matrix/resources.cfm?rid=17) (Book)
* [Out of the Dust](http://www.agclassroom.org/teacher/matrix/resources.cfm?rid=39) (Book)
* [Survival in the Storm](http://www.agclassroom.org/teacher/matrix/resources.cfm?rid=514) (Book)
* [The Grapes of Wrath](http://www.agclassroom.org/teacher/matrix/resources.cfm?rid=18) (Book)
* [The Hungry Planet](http://www.agclassroom.org/teacher/matrix/resources.cfm?rid=72) (Book)
* [Black Blizzard](http://www.agclassroom.org/teacher/matrix/resources.cfm?rid=19) (Multimedia)
* [Creamed, Canned and Frozen: How the Great Depression Revamped U.S. Diets](http://www.agclassroom.org/teacher/matrix/resources.cfm?rid=651) (Multimedia)
* [Dust Bowl: CBS 1955 Documentary](http://www.agclassroom.org/teacher/matrix/resources.cfm?rid=20) (Multimedia)
* [Dust Bowl: Grantsville, Utah](http://www.agclassroom.org/teacher/matrix/resources.cfm?rid=789) (Multimedia)
* [FDR's Fireside Chat: Dust Bowl](http://www.agclassroom.org/teacher/matrix/resources.cfm?rid=21) (Multimedia)
* [Growing Today for Tomorrow Video](http://www.agclassroom.org/teacher/matrix/resources.cfm?rid=411) (Multimedia)
* [Agricultural News](http://www.agclassroom.org/teacher/matrix/resources.cfm?rid=776) (Website)

**Sources/Credits**

1. <http://www.history.com/topics/dust-bowl>