

Getting down and dirty with your Lesson Plans

Joan K. Weaver, Director Kinsley Library

Dust Bowl Connections In-Service

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USD 347 Kinsley-Offerle Schools

*Resources found linked on Kinsley Library Website

MATHEMATICS

BROTHER CAN YOU SPARE A DIME? What was a dime worth then and now?

- 1) Utilize age appropriate activities around the concept of 10¢: How many pennies in a dime? Nickels? Counting by 10; How many dimes in a dollar? Multiplying and dividing by 10¢
- 2) Listen to “Buddy Can You Spare a Dime” (Lyrics #11 in the Resources) and discuss the song.
- 3) Set up a “grocery store” with items priced cheaply as in the Depression.
(Activities can grow in complexity according to math concepts being studied)
 - a. They would select item and add up their bill
 - b. Students would have up to \$1 to spend and then subtract their bill from the \$1
 - c. The next day, the prices could be changed to today’s amounts. The students would do the same thing only with the larger decimal numbers.
 - d. Students would compare their two shopping lists.
- 4) Plan a special activity in the classroom where “dimes” (tokens) can be earned and things cost a dime.
- 5) Compare prices from the local 1935 newspaper to today’s prices from a grocery flyer.
What cost 5¢ then: Soda pop; ice cream soda; burger; bowl of soup and bread; loaf of bread, an apple (Picture #31 in Resources), Cracker jacks = 3¢ (Ads are #5-#9 in Resources)
- 6) Gong to the Palace Theater was 10¢
Buford Brodbeck Interview: “It was kind of tough, but I don’t remember our family ever wanting for anything. We always had money. Dad could always give us a dime every time we wanted to go to the movie. We really weren’t that bad. Sometimes, I think we were better off than a lot of them....It didn’t cost much to ride a carnival ride, 10 cents.”
- 7) Learn about the *March of Dimes* which raised funds to find a cure for polio. Dimes can add up.

IT WAS TOUGH: Even with a job, wages were low.

Minimum wage began in 1928 at 25 cents an hour. Before that there were no regulations. Wages are brought up in the library interview with Kenny Dupree. His excerpt can be found on a chart on Federal Minimum Wages (#13 in Resources). Develop questions using this chart.

WE LIVED ON WHAT WE GREW: What does it take to feed your family?

Develop math applications based on the chart of how many vegetables per person to plant in a garden (*Garden Plan*, #12 in Resources). Using multiplication, students figure how much they will need for their family. They can also figure how many rows this would take and plot out a garden using graft paper.

AUCTION DAY: We lost the farm

1) Many farms were lost during this time. Banks held auctions. Set up an auction in the classroom using “white elephant” items the children bring from home or reward items including privileges that the teacher has available. Children could earn “money” for a time leading up to auction day. Play money/tokens/poker chips could be given out for good behavior, successful work, good deeds, etc. Children could practice and select or take turns being the auctioneer. One student would be the cashier.

2) Book 1 of the **Agriculture Adventures Book** (available from County Extension Agents), page 32, “Let’s Have an Auction” outlines an auction activity for grades 3-5.

3) Older students could learn words like mortgage, foreclosure, collateral, loan, default, interest. Percentage math problems could be developed around interest.

WHAT ‘CHA GIVE ME FOR IT: Bartering was a way of life

Bartering is what people did before money and when they do not have money. Book 1 of the **Agriculture Adventures Book** (available from County Extension Agents), page 30, “Let’s do Lunch” is a bartering activity for grades 3-5.

“DUST, DROUGHT, AND DREAMS GONE DRY” EXHIBIT:

The library hopes to have a container with a ton of soil in it in front of the library from January 7 to February 20 for the students to see when they visit the exhibit. This will be approximately one yard square. In 1935 alone, it is estimated that 850 million tons of top soil blew away. The average dust bowl farm lost 480 tons of top soil per acre

PROBLEM SOLVING

PACKING UP: What would you pack into your family car?

(Dust Bowl books and the internet offer many images of families and their vehicles loaded down and heading to California.)

- 1) Have children think about what their family would take if their family had to leave their house to move somewhere. It would all have to fit into the family car or truck. Families might have to do this today when there is a forest fire or other threatening disaster.
- 2) After they have time to think individually, they might get together in small groups or as a class to make a list. Remind them to leave room for family members in the car. No leaving out little brothers or sisters. What about pets? Would you take them or find another home for them? What if you could not afford hotels and had to camp? Would your list change? Is there a difference between essential things and things that might be important to them? What things would be the hardest to leave behind?
- 3) Young children could draw a picture of their car with the things to be packed around it. Older children might write about the personal things they would take if they only had a shoe box.

AD ASTRA PER ASPERA - "TO THE STARS WITH DIFFICULTIES"

The Kansas State motto was adopted on May 23, 1861. Help the students discover what difficulties were in mind when it was adopted (Civil War and homesteading with all of those challenges). Later, William Allen White translated the Latin as, "To the stars through hard times." A Kansas Poet, Kenneth Wiggins Porter, wrote it as, "To the Stars through Flints and Briars." Thinking about what happened during the Dust Bowl era, does this motto seem appropriate for that time? What difficulties were faced by those who lived during the Depression and Dust Bowl era in Kansas? How did they meet or overcome these difficulties. Did they reach the stars?

WON'T YOU JOIN THE *LAST MAN'S CLUB*

John L. McCarty published the *Dalhart Tribune* newspaper. He formed a club of farmers who pledged to stay, in other words, to be the "last man to leave". No matter how hard the dust blew they would not retreat (except for personal tragedy or illness). People signed their name to a pledge when they joined the club (pages 229-231 in *The Worst Hard Times* by Timothy Egan). Ironically, when McCarty got a job offer, he did leave town.

- 1) Have students learn about this club. Discuss why this club formed. Why would a farmer want to be in it?
- 2) Discuss clubs or groups today. Why do students want to be in clubs? What are the good things clubs can offer? What are some bad things that can happen in clubs?
- 3) How are leaders chosen in clubs or informal cliques? What makes a good leader? How do you know when you should follow someone else or when you should not?
- 4) Why do clubs have rules? Have you ever not wanted to follow the rules of a club? Why?
- 5) Sometimes leaders, like McCarty, disappoint. How does that make a club member feel? What should you do if you are disappointed with the leadership of a group you are in?

OKIES: Stereotypes, name calling, bullying, and vigilantes

During the Dust Bowl the migrants suffered mental and physical abuse by other people. They were called *Okies*, *tin-can tourists*, *Arkies*, *Texicans*, *dust bowlers*, *hillbillies*, *harvest gypsies*, *squatters*, and *fruit tramps*. The migrant camps were referred to as *Weedpatch*, *Little Oklahomas* or *Okieville*s. Police on duty at highway checkpoints to keep people out of California were called the *bum brigades*.

- 1) Why did the people in California feel this way about the migrants coming in?
- 2) These names are derogatory stereotypes for people who a few years earlier had been hard working farmers. How do you think these names made the migrants feel?
- 3) Why do some people like to call other people names?
- 3) What should you do if you hear someone calling someone else a name?
- 4) Older students could find out how the migrants were treated beyond the name calling.

SCIENCE

PITCHING IN

Everyone helps the family survive

Water Conservation

1) Discuss how members of a family (or class) work together for the good of the unit. Farm children in the 1930s had chores to do each day for the family to survive. One chore was hauling water to farm animals, gardens, fruit trees. This helped the family have milk, meat, eggs, vegetables and fruit to eat. Many farm houses did not have running water in the house, so they also carried water from a well to the house for drinking, cooking, bathing, and washing clothes. Using clean gallon containers, have the children fill them with water from a source outside their classroom and carry it back to the classroom. They will pour from these containers for their drinking water for day/week.

2) Discuss what might change in a family's use of water if it had to be carried in to the house. Investigate how much water it takes to wash using a basin and washcloth, taking a shower or taking a bath; to wash dishes by hand or using the dishwasher; to brush teeth with the water running or with a glass of water; to wash a car in different ways; etc. How hard would it be to grow a garden or keep an orchard alive if you had to carry buckets of water instead of using a hose? Would you water a lawn during a drought? What alternatives are there to growing grass in desert climates?

PLANT A TREE

Plant a tree to remember the Dust Bowl

Soil Conservation

1) Learn about the parts of a tree and the importance of trees in an ecosystem.

2) If there is room on the school property, children could purchase and plant a tree. The County Extension Agent might help with the planting and instruct on the care. A marker could be placed by the tree remembering the Dust Bowl days.

3) During the Dust Bowl, even 10¢ was a lot of money. Children could bring a dime to raise the money to the purchase the tree (See "Mister could you spare a dime" idea)

4) Children could be given the chore (privilege/duty) of carrying a bucket of water to this tree (or to established trees on the school property) each day that it does not rain for a specified time.

BLOWIN'IN THE WIND

Soil erosion

Assemble a tray of fine sand and experiment with different obstacles. Children can takes turns blowing (maybe through a straw) or use a hair dryer on a low setting. Always blow from the same direction like the wind. Blow the sand with nothing in the tray. Put a block in the sand to represent a house or a barn. Put model trees (a row of twigs from a shrub to represent a shelter belt. Put groves in the sand to represent contour farming – experiment with the direction the wind is blowing and how effective the contours are. It might be difficult on this scale, but can you experiment with terraces and erosion by water?

MESSING WITH NATURE #1 Disturbing the ecology of an environment

1) Read ads and articles from newspaper about Rabbit Drives. (See Resources: *Rabbit Drive Ad #23 and Rabbit Drive Articles #24*) Discuss why the rabbit drives were necessary. Describe how a rabbit drive was conducted. What did the people do with the dead rabbits? How do you think you would have felt if you watched or participated in a rabbit drive. **Rose's Journal**, by Marissa Moss on the March 24 entry, tells about Rabbit Drives and how Rose felt about them.

2) Look at and discuss vintage pictures of rabbit drives (See Resources: *Rabbit Drives #22*). There are also movies of these drives on the Internet.

3) If you are conducting an oral history, include a question about rabbit drives.

4) Read in the Kinsley Library transcript, local people's memories of rabbit drives. (See Resources: *Rabbit Drive Interviews #20*). What was their reaction to these drives?

5) Caroline Henderson, of western OK, wrote a series of articles in the Atlantic Monthly. She wrote:

"On our bleak Easter morning a jack rabbit sat crouched in the kindling pile by the kitchen door. He was, however, no frolicsome Easter bunny, but a starved, trembling creature with one eye battered out by the terrific dust storms of the preceding week. When these wild creatures, ordinarily so well able to take care of themselves, come seeking protection, their necessity indicates a cruel crisis for man and beast."

What would cause people to be able to kill rabbits one day and have sympathy for a rabbit the next? In **Survival in the Storm: The Dust Bowl Diary of Grace Edwards, Dalhart, Texas, 1935** by Katelyn Janke, the main character rescues a rabbit beginning on page 100. Read this selection to the students.

6) Duplicate the Rabbit Drive Postcards (See Resources #21) and cut them out. Have each student write a postcard which tells how they feel about rabbit drives. They should include some facts about how the drives were done and/or why they were done.

MESSING WITH NATURE #2 Introduction of Non-native species

1) Russian Thistle (tumbleweed) was introduced to the plains when it arrived mixed with flax seed. It is an invasive species which farmers try to eradicate. Explore the role tumbleweeds played during the Dust Bowl from being an obstacle caught along fences to create dust drifts, to food for cattle, to food for humans.

2) Ask the county agent to come and discuss with the class the impact of Russian thistle and other invasive species on the area.

3) Investigate the introduction of rabbits into Australia and its ramifications.

MESSING WITH NATURE #3 Elimination of Native species

1) Bison were native to the plains. Bison do not stay in one place, the shape of their mouths does not allow them to graze too closely to the ground, their hooves break the soil for better air and water absorption, and their manure fertilizes the grasses. How are cattle different? The same? (Discussion in **Years of Dust**, by Albert Marrin, page 25+) Why were the bison eliminated from the plains? Do the students think it was good or bad to replace the bison with cattle?

2) In **Years of Dust**, Albert Marrin (p. 120) discusses the Black-footed Ferret being near extinction. It is a natural predator of the prairie dog and helps control their numbers. It is now being reintroduced. Have students research this animal.

3) Too many grasshoppers. What predators of grasshoppers might be missing during the drought resulting in too many hoppers? Are there places in the world where people might eat grasshoppers? See Resources #17 for *Grasshopper Plague* to read excerpts from Kinsley Library oral histories, and #18, *Grasshoppers for Dinner*. If you conduct any oral histories of the Dust Bowl Era, be sure to ask about grasshoppers.

IF IT RAINS The Farmers' Hopeful Question

1) Record precipitation (rain/snow) on a classroom calendar or journal for a month or more.

2) Make some adjustments to the classroom activities because of high winds which might have caused a Dust Storm in the 1930s. (Do I dare suggest having to stay in for recess?) And then any time it rains, some special activity to celebrate.

3) Virginia Lippoldt Rapp of Kinsley kept a diary as a girl. The Kinsley Library transcribed her weather records from 1935. (Resource # 19) Have the children look at what the weather was from that year, compared to this year.

4) Compare precipitation charts. (See Resources #19 for *Annual Rainfall*)

5) Compare the natural disaster of a tornado with the man-made disaster of a dust storm.

GROWING WHEAT IN AMERICA'S BREADBASKET

1) Learn about wheat, kinds of wheat, the parts of wheat plant, how it is grown and harvested;

2) Discuss annuals and perennials. Wheat is an annual; grass is a perennial. Show handout on Prairie Roots (See Resources, #26 *Roots*). Describe the difference.

3) Plant several pots of wheat and introduce variables. Plant in soil; plant in sand. Water regularly, water once or twice and then quit, or water sporadically, stop watering, try to gently wash off soil to expose roots.

4) Plant several pots of wheat and water it regularly to get a good stand. Keep one for a control and then expose one to the warm air of a hair dryer for a length of time to wilt it. Water it and see if it recovers. Blow on one regularly for several days.

NO WATER, NO WHERE

- 1) If you are interested in doing a unit on water and conservation, the National Association of Conservation Districts (NACD) has lesson plans for K-1, 2-3, 4-5, and 6+ entitled **Where Does Your Water Shed?** Find them at: <http://www.nacdnet.org/education/resources/water/water-shed>
- 2) Students can make a conservation video. View two samples at the Kinsley Library website, Activity Archive page, Year 2010: *Pardon Me Sir* Teen Water Conservation PSA and *To Flush or Not To Flush* Teen Water Conservation PSA.

SPARKS A'FLYING

- 1) Research what causes static electricity. During the Dust Bowl trillions of dust particles striking against each other generated static electricity.
- 2) Static electricity caused problems during the Dust Bowl days. Men avoided shaking hands with each other because the static electricity was so great it could knock a person down. They were careful touching a fence or windmill. They also put cloth on their doorknobs and metal oven handles to inhibit the electrical jolt. Car owners used chains, dragging them along the street as a ground for the electricity in the air. Static electricity made the barbs on barbed wire fences glow. Animals blown into fences could be seriously injured. You could get a shock when you went to milk the cow. Cows didn't appreciate it either and you might get kicked.
- 3) Do some experiments with Static Electricity. Look on line or use these library resources.
Simple Science Experiments with Everyday Materials – p 33 “Flash” (Resource #27)
 Take a Bubble Dancing” - p 126
Simple Science Experiments Whole chapter on Static Electricity - p 36
Discovering Electricity - pp 8-13
The Book of Totally Irresponsible Science - p 30 Static Electricity Slime
Fizz Bubble & Flash – p 50 An Ec Static Experiment

FAR OUT DUST - Can you see an alien in a Dust Storm?

Compare Dust storms on Mars. What do scientist think causes them? More info at:
http://science.nasa.gov/science-news/science-at-nasa/2003/09jul_marsdust/

DESERTIFICATION All day I faced the barren waste

- 1) The San Joaquin Valley in California is in a drought now. This is the valley where many of the migrants fled to escape the Dust Bowl. Students can research this drought and compare it to what happened in the 1930s in this area. Full text articles can be found on the Kansas State Library periodical database: <http://kslib.info/221/Online-Databases> Use KIDS SEARCH
- 2) The last chapter of **Years of Dust** by Albert Marrin goes into some detail about the desertification happening in China and the Amazon. There is a chart of dust storms in China. Compare these current ecological disasters with the 1930s Dust Bowl era.

DUST PNEUMONIA I've got the dust pneumony blues

1) Research the lungs and how the respiratory system works. What caused Dust Pneumonia (silicosis)? How did the people try to protect themselves (dust mask, wet cloths over mouths)? How was it treated? How many people died of it during the 1930s?

2) Share the Kinsley Interview excerpts and newspaper clipping with the students for discussion (See Resources, #15 *Dust Pneumonia*)

3) What issues do we have today over air quality from industry, to natural contaminants, to cigarettes?

FIGHT POLIO – JOIN THE MARCH OF DIMES

1) Research the disease of polio. What caused it? Who did it affect? How was it treated? What was an iron lung? Who was Jonas Salk? What was the *March of Dimes* (lots of info and images on web).

2) Read/listen to the portion of Edwards County resident Leroy Sparkes' oral history who had polio as a child. *Kinsley Library Patterns of Change*, LeRoy Sparke page 6 (Resource #15) <http://tmp.kinsleylibrary.info/PatternsTranscripts/SparkeComplete.pdf>

3) Franklin Delano Roosevelt had polio. Research when he contracted it and how it affected him. Despite the effects of this debilitating disease, he went on to be elected president of the United four times. Discuss the importance of seeing what a person can do, not what he/she can't do.

4) Dorothea Lange, the Dust Bowl photographer also had polio. Learn about her and how polio affected her life.

TRUST ME, I CAN MAKE IT RAIN

1) Learn about what causes rain. Discuss the water cycle.

2) Research how people have tried to make it rain. Native Americans did rain dances. There were superstitions, for example: if you kill a snake and hang it on a fence it will rain.

3) Charles Hatfield was a rain maker from Fort Scott, Kansas. Learn about him and find images on the internet.

4) Assign individuals/groups to design or invent whimsical (or not) rainmaking machines

5) During the drought in the 1950s, the Kinsley farmers thought about hiring a rainmaker. Use the articles from May, 1951 for a discussion (Resource #25). Note that one big rain does not necessarily end a drought.

WE LIVED ON WHAT WE GREW - Subsistence farming

- 1) Young children can talk about and read picture books on how gardens grow. Discuss what vegetable the children like. Bring a wide assortment of vegetables to class for children to see. Have them discuss what vegetable they would like, what ones they would like to try, and what ones they have tried and did not care for. Encourage them to always eat a little bit of things they do not like, and they may come to like it.
- 2) Bring a wide assortment of fresh or frozen vegetable to the classroom. Discuss what ones the children are familiar with and what ones might be new. Let them taste them. Talk about the colors and how if we are eating healthy our plate is very colorful.
- 3) Children can then choose from a wide assortment of vegetables to fill a small plastic cup. Everyone drops the contents of their cups into a big crock pot with tomato juice to make soup. Eat with cornbread or crackers. (I did this with preschoolers once and they gobbled it up – fresh/frozen vegetables make very tasty soup). Talk to the children about the hard times of the depression and how people ate in Soup Kitchens.
- 4) Young children can draw a picture of their garden with their favorite vegetables in it. Discuss having a line across the page for underground and above ground views to be able to show carrots and beans growing. Or using pictures of vegetable (seed catalogs or internet resources), have children cut out pictures of vegetables they would like to grow in their garden.
- 5) Math applications – Students look at the chart of how many vegetables per person to plant (In Resources, #16 *Garden Planning*). Using multiplication, they figure how much they will need for their family. They can also figure how many rows this would take and plot out a garden using graph paper.

LANGUAGE ARTS

DIARY OF THE DUST BOWL

1) Every day, read from a Dust Bowl journal

“Rose’s Journal” begins on January 1, 1935

“Survival in the Storm: The Dust Bowl Diary of Grace Edwards” begins on Feb. 17, 1935

2) Discuss with the students the vintage things that are mentioned. Perhaps you can find some to bring to class.

3) Provide children with an experience from the time that is mentioned. Have them make butter, bread, jelly, stew, etc.; show a Depression era film or cartoon, listen to a radio show

VOICES OF THE DUST BOWL

1) In the book, **Voices of the Dust Bowl**, there are 17 characters. Assemble simple costumes (hats, ties, aprons etc.) and let the children read one page in character. A narrator or signs can be used to show the progression of years.

2) After you have learned about the Dust Bowl, have children write three paragraphs from three points of view: Example: After a Rabbit Drive: 1) a farmer whose crops are being eaten by rabbits; 2) a boy or girl watching a rabbit drive, 3) a rabbit being chased on the rabbit drive.

PUT A STAMP ON IT

1) You could mail a letter for 2 cents in 1930. The rate changed to 3 cents on July 6, 1932, and remained the same for 26 years until it finally changed to 4 cents in 1958. Have them think about what else could be bought during this time for 2 to 5 cents. Sometimes there was not enough money for a stamp. As your students learn about the Dust Bowl, have them write a letter as if they were a child of that era to a grandparent who lived back east. OR have them write a letter as a child on his way to California or in a migrant camp in California to a friend back in Kansas.

2) The Mount Holyoke College Library’s collection of the papers of Caroline Henderson, who farmed throughout the Dust Bowl period and wrote many letters, essays, and articles about her experiences. They can be found at https://www.mtholyoke.edu/resources/daps/asc_dc/henderson/

THIS IS YOUR LIFE Autobiography and Biography

Have children read a book or do research on a famous person from this time. They can present oral reports, written reports, make a poster, etc. Some suggestions:

Charles Angell, Sr.	Bonnie Parker and Clyde Barrow	Shirley Temple
Hugh Bennett	Pretty Boy Floyd	Joe Lewis
Henry Ford	Walt Disney	Herbert Hoover
Osa and Martin Johnson	Franklin Delano Roosevelt – FDR	Jesse Owens
Dorothea Lange	Eleanor Roosevelt	Babe Ruth
Will Rogers	Alf Landon	Joe DiMaggio
Arthur Rothstein	Ernie Pyle	

There are lots of sports figures and movie stars – Search on Wikipedia under the 1930s

POETRY:

- 1) In *Dust to Eat*, the author Michael Copper quotes a poem by Flora Robertson which she wrote after leaving the southwest and arriving in the San Joaquin Valley: it is entitled “Why We Come to California”
- California, California
 Here I come too.
 With a coffee pot and skillet,
 And I’m coming to you.
 Nothing’s left in Oklahoma,
 For us to eat or do.
 And if apples, nuts, and oranges,
 And Santa Claus is real,
 Come on to California,
 Eat and eat till you’re full.

Discuss the poem with the students. How does the poet see California? How does the poet remember Oklahoma. Speculate on what Flora looks like. How do you think she got to California? What is she going to do in California? Why do you suppose she refers to Santa Claus? Does this hint at there not being any jobs?

Read and discuss other poems written about the Dust Bowl Era:

- The Kansas Historical Society has the “Dust Storm Collection on the Kansas Memory website. <http://www.kansasmemory.org/item/211010>
- May Williams Ward was a nationally known poet who lived for a time in Belpre. Two poems are: “Reversal” and “Rain” from the book **In That Day**.
- Kenneth Wiggins Porter has a series of poems entitled “Ad Astra per Aspera”

2) Invite your students to write a poem or song lyrics reflecting their feeling about the Dust Bowl. Or they could write a poem about an ecological problem of today – global warming, depletion of the aquifer, or the extinction of an animal. Host a poetry reading or compile the poems into a book for the library or publish digitally on line.

RETURN WITH US NOW TO THE THRILLING DAYS OF YESTERYEAR

1) Produce a Radio Show airing during the Dust Bowl. The children can write news stories, sing or play 1930s music, produce a comedy show of Dust bowl humor (Resource #3 *Humor*), and maybe write and perform a radio drama. Don’t forget the advertisements. Practice the parts, and then put it on as a live radio show (with a live audience) which you can audio record.

2) Share the Dust Bowl humor in class, a joke or two a day (See Resources, #3 *Humor*).

3. Learn about Will Rogers or Ernie Pyle.

VISUAL ARTS

LIVING IN A BLURRED LANDSCAPE:

Have children color a picture of a barn, house, fence, animals, outhouse, etc. Then paint a watercolor wash of greys or browns over the crayon. Talk about the dust from Oklahoma being red, the dust from Colorado and New Mexico being gray, and the dust from Kansas and Nebraska being black. Children can choose their dirty shade of one of those colors for their wash.

A PICTURE IS WORTH A THOUSAND WORDS:

I. *Migrant Mother*, the Face of the Dust Bowl

The Kinsley Library has a large copy of this photo by Dorothea Lange that can be borrowed for use in the classroom.

A. Describe and Analyze

- 1) Ask students what they first notice when they look at this photograph. It may be helpful to cover up $\frac{3}{4}$ of picture and just look at $\frac{1}{4}$. Then uncover another $\frac{1}{4}$ and look at $\frac{1}{2}$ of the image; then $\frac{3}{4}$; then the whole picture.
- 2) Describe the woman's clothing. What does the clothing suggest about the woman and children?
- 3) When looking at the whole image, what part of the picture is the eye drawn to?
- 4) Why did Lange not include much background in the picture?

B. Interpret

- 1) Have students describe the expression on this woman's face. How does she feel? What might she be thinking?
- 2) Ask students to speculate on why the children turned their heads away from the camera.
- 3) Why might Lange have decided to take such a close-up photograph?

C. In the Book, **Years of Dust** by Albert Marrin (pages 99-103) the author relates Dorothea Lange's story of taking the picture, *Migrant Mother*. He also tells about the event from the migrant mother's and her children's points of view. Share and discuss these different points of view with older children.

D. Read **Dorothea Lange** by Mike Venezia to the class.

II. Picturing the Dust Bowl, the Paintings of Alexandre Hogue

It has been said that when you look at Alexandre Hogue's painting you "not only see the Dust Bowl, but also feel its heat, its despair, its anguished death, and the tragedy of its farmers."

Alexandre Hogue: The Erosion Series by Sue Canterbury is a wonderful resource book into Hogue's art with pictures and commentary on the paintings and his life.

"Drouth Survivors." by Alexandre Hogue (Find copies of picture on Internet)

A. Describe and Analyze:

- 1) This is a good painting to use the technique of revealing the work in segments. First have the students look at the top half of the painting and describe what they see (tractor buried in sand drift, barbed wire fence partially exposed with barbed wire broken and in sand). Then add the left one-third of the painting which has a dead steer partially buried. Have the children comment on what they see. The object half-buried in the lower left corner is a plowshare. Show the

children a picture of one and discuss what it was used for. Finally expose the bottom right two-thirds. What do they see? Who are the Drouth Survivors?

- 2) Look at the whole painting. What is your eye drawn to?
- 3) What is the color palette of the painting? Why?
- 4) There is very little sky in the picture and lots of land. Why do you think the artist did this?

B. Interpret

- 1) Life and Death: What things in the painting are dead. What things are partially buried? What things are alive? Are these the survivors? (Some copies of the painting have the grass dead and some have it alive.)
- 2) No people are in the picture. How are people shown in another way? Have the children speculate on why the artist did not have a person in the picture. Do they think the unseen people belong in the Dead or Alive category? Why?
- 3) How does the introduction of a rattlesnake affect how the scene is experienced?
- 4) Have the students describe the overall feeling they have when they look at the painting.

III. Create an American Portrait Photo Essay

In **The Dust Bowl through the Lens**, Russell Lee is said to be “the man who created America’s portrait.” Have each child take a picture of someone for a:

- American Portrait (relative, neighbor, someone from church, a business, etc - I would suggest not a young person) and make a digital American Portrait book. Talk about what makes a good picture. Be sure to explain a photo release agreement (Resource #30) and have them on file. Publish a copy for the school library, put up a display, and/or publish it digitally.
- “School Portrait” using adults in the school (janitor, cook, teachers, staff, principal, nurse, counselor, aide, etc.) have each child choose one person and takes a portrait of the person at their job. Talk about what makes a good picture. Be sure to explain a photo release agreement (Resource #30) and have them on file for each picture. Publish a copy for the school library, put up a display, and/or publish it digitally.

CREATIVE DRAMATICS

How much courage do you have? And you know your class. Those two things being said, years ago there was something called *Creative Dramatics* in the classroom. Teachers have to be willing to take a big risk to do this, but it can be very educationally exciting. After your students have learned about the Dust Bowl, let them create a drama acting it out. This is not a play with a script; it is simply making it up as they go along. I use to do this and was always amazed at how well children were able to capture the facts and feelings of a time. I would suggest that you turn your classroom into a 1930s one-room school. One student would be the teacher and the rest would be students of different ages. They would act out what they thought a one-room school would be like. Then somehow they realize that a duster is on the way (kids decide if they see it at recess, or an adult comes running in with the news at which point a student just becomes the adult – rolls can be fluid. What goes on while they are trying to decide if they should go home or not. Maybe some leave and some don’t? For those that stay, how do they get ready for the storm? What is it like during the duster. What happens after the duster. Is everyone safe? Did kids who left, get home safely? Do parents arrive with relief? As teacher, you can say STOP ACTION at any point if students are not being realistic, if you want to make a suggestion, or if you want to throw in challenge – like you announce that there is a poor little bunny outside and the class can decide to rescue or not.

LET'S ALL GO TO THE SHOW

1) Here are some Depression Era movies to view (your library can get them for you) and then talk about why they might have been popular during the Depression

Movies:

1931 Dracula	1937 Heidi (Shirley Temple)
1931 Frankenstein	1937 Snow White and the Seven Dwarfs
1931 Dr. Jekyll and Mr. Hyde	1938 You Can't Take it With You
1932 The Mummy	1938 Rebecca of Sunnybrook Farm
1932 Tarzan the Ape Man	1938 A Christmas Carol
1933 Alice in Wonderland	1938 The Adventures of Robin Hood
1933 The Invisible Man	1939 Wizard of Oz
1933 King Kong	1939 Gone With the Wind
1934 Bright Eyes (Shirley Temple)	1939 Mr. Smith Goes to Washington
1936 Modern Times (Charlie Chaplin)	1939 The Little Princess
1939 Of Mice and Men	

2) Upper Elementary students and you might enjoy discovering the political symbolism in the Wizard of Oz. For example: What kills the Wicked Witch? *"Ah ha, my pretty!"*

SEE YOU IN THE FUNNY PAGES

1) Comic strips were very popular in the 1930s. Using a comic strip book, post a new strip each day for the children to follow.

Comic Strips started in the 1930s include:

Betty Boop	Blondie	Dick Tracy	Donald Duck
Flash Gordon	Henry	Li'l Abner	Little Lulu
Nancy	Red Ryder	The Shadow	Superman

2) Superman began in 1938. If you have access to any vintage comic books bring them into your classroom for the students to look at read. Have them compare comic books to graphic novels of today.

3) Bring in a vintage cartoon movie for the children to watch. Disney was popular or research on the Internet for your favorite. Your library can get them for you. **Play Safe** is a short cartoon which is available on the internet: <https://www.youtube.com/watch?v=AUrOCeT3OIo>

SOCIAL STUDIES

ORAL HISTORY:

Students can learn firsthand about primary and secondary sources during this project. As you read books, listen to oral histories, look at letters or diaries, look at pictures and film, children can distinguish between primary or secondary source. Then they will have an opportunity to preserve a primary source oral history.

It is a valuable experience for children to interview someone. For this project, you might be lucky enough to still be able to talk to someone who lived during the 1930s. Another possibility is to interview a farmer who remembers the drought in the 1950s; or interview a person in agriculture like the County Agent about how farming practices have changed since the Dust Bowl; or perhaps a person whose ancestors came to Kinsley to farm and the family still lives on the farm.

- 1) Discuss what an oral history is.
- 2) Read some excerpts from the Kinsley Library oral history projects which talk about the dust Bowl (Available in Resources, #4 *Kinsley Library Oral History Excerpts*).
- 3) Look at the Oral Histories the Kinsley Library has posted on its website, www.kinsleylibrary.info under *Patchwork of Dependency: World War II, Patterns of Change: Edwards County 1950-1970*, and *1979 Tractorcade*. These contain an audio, a transcript, personal photos, and short video.
- 4) Read some excerpts from:
 - <http://dc.library.okstate.edu/cdm/search/collection/Dustbowl>
The Oklahoma State University Library's "Women in the Dust Bowl" online oral history archives of interviews with people who lived through the Dust Bowl.
 - https://www.mtholyoke.edu/resources/daps/asc_dc/henderson/
The Mount Holyoke College Library's collection of the papers of Caroline Henderson, who farmed throughout the Dust Bowl period and wrote many letters, essays, and articles about her experiences. Many of Henderson's observations are gathered in the book, *Letters from the Dust Bowl*, edited by Alvin O. Turner.
- 5) Interview someone who lived through the Dust Bowl of the 1930s or the drought of 1950s. The class should spend some time getting ready for the interview. Oklahoma State University has some good directions for students in their *Oral History in a Box* resources. <http://www.library.okstate.edu/oralhistory/ala/>. There are sample release forms at this site too. (Kinsley students will have access to the *Oral History in a Box* Kit and Joan Weaver is willing to help with resources.) There is also free Audacity software on the Internet.
- 6) Record the interview either audio or video. If possible have an adult volunteer transcribe the interview. (Older students might try this to experience the difficulty of transcription. It is a skill.)
- 7) Archive your interview and transcription in your school library, public library, local museum, and if possible make it accessible on the Internet.

TIMELINE

Research and make timelines:

- 1) Make a timeline of major events depending on student's age.
 - When was World War I? How did World War I contribute to the Depression and Dust Bowl disaster?
 - When & what was Black Tuesday?
 - Chart some major dust storm. (See Resources #3 *Timeline* for a very complete list)
 - Chart presidents
 - Chart beginning of government agencies created to help (CCC, WPA, Social Security, etc.)
 - When was World War II? How did World War II help the country to recover from the Depression.
 - Have students find out the names of their great grandparents and where they were during the 1930s -- some may have been born around this time and could be added to timeline

CHOOSE YOUR OWN MISADVENTURE

1) Have each student choose a Dust Bowl Persona – wealthy farmer, wealthy banker, business man, tenant farmer, child of their age, teenager, farmer's wife, teacher, minister, nurse, doctor, government worker, CCC worker, etc. At the top of a piece of paper, have them begin by describing where they live in the Dust Bowl area and what life was like for them before 1929. Then as you go through the study, throw some life or environmental events at each, and they can decide what they would do and the effects it would have. For example: No rain has caused the wheat crops to fail; or you have a new baby (their own or a brother or sister), or your neighbor's farm is auctioned.

2) Using the book, **The Dust Bowl: An Interactive History Adventure**, have students read and make choices. OR Use the PBS website: <http://www.pbs.org/kenburns/dustbowl/interactive/> for students to make choices as they survive the Dust Bowl.

WHEAT – THE BREAD OF LIFE:

Resources are available at the county extension office for free.

- 1) Learn about wheat, the parts of it, how it is grown and harvested, and the kinds of wheat.
- 2) Talk about white flour and whole wheat flour. Grind some wheat to make flour.
- 3) Make some whole wheat bread. Learn about gluten and yeast. Have them knead the dough in a shallow pan under a towel like mothers had to do to keep the dust out of the bread.
- 4) Invite your Extension Agent to come make bread-in-a-bag.
- 5) Discuss why it would be difficult to make bread during the Dirty Thirties.
- 6) "Churn" some butter from cream to go with the whole wheat bread for the class to eat.
- 7) The Kansas Historical Society has a "Wheat Trunk" which can be borrowed.

JOINING THE SOUP LINE:

- 1) Make soup in the classroom in crock pots and line up for the soup kitchen. Serve with home-made cornbread. Or have cafeteria serve a Soup Kitchen lunch of soup and bread and whatever else to follow nutritional requirements (but keeping it as simple as possible).
- 2) Make bread or cornbread. Talk about wheat flour and corn meal. “Churn” some butter from cream to eat with your bread. Get help from your extension agent.

RINGING THE DINNER BELL

Farm families often fared better during the Depression than city folk because they could raise and grow food.

- 1) Roast in the oven some turnips, carrots, potatoes, onions for the children to try. Roasting vegetables with a little olive oil and salt in a hot oven brings out the sugars and makes them sweet.
- 2) Make a chicken stew with vegetable in the crock pot.
- 3) Bring a tumbleweed (Russian thistle) to class. Have your students imagine what it would be like to only have tumbleweeds to eat. They were also fed to the cows.
- 4) Have a food canning demonstration by your county extension office.

LIVING AIN'T EASY IN THE '30s

- 1) Research and discuss what life was like living on a farm in the dust bowl. Find pictures of farms.
- 2) Research and discuss what life was like living in a small town. Use Centennial books and other local history books. Students can look for pictures in books and on-line. Visit the local museum. (Kinsley students can explore the historical digital map on the library website.)
- 3) Research and discuss what life was like in the big city. Find pictures
- 4) Research and discuss what life was like in a California migrant camp. Find pictures.
- 5) Take a field trip to an historical museum.

SCHOOL'S OUT, SCHOOL'S OUT:

- 1) Research what it was like to attend a country school in the 1930s.
- 2) Children often missed school because of the dust storms. Parents kept them home for fear of them getting lost. Teachers kept them at school if a duster blew up. Discuss what it would be like to have to stay at school for a few hours or overnight.
- 3) Migrant children missed school because the family was always moving to pick crops or because they had to help pick crops. Listen to or read the interview the Kinsley Library did with Jake Schmidt on the library website. Mr. Schmidt has led a productive life, despite not being able to read or write. In what ways would illiteracy handicap a person? How would they compensate?

GET YOUR KICKS ON ROUTE 66 On the road again

Discover Route 66, the road to California. Have students trace the route onto a map and mark in the major cities or points of interest. Have them give reports. What has become of Route 66. Listen to/learn the song "Get Your Kicks on Route 66" (lyrics and renditions available on internet).

RIDING THE RAILS It's a hobos life for me

Because there were no jobs, especially for teenagers and young adults, many people left to try to find work. They had no money so they hitched rides on trains, bummed for food, and slept on the ground, in boxcars, and in hobo jungles. They were called hobos. Approximately 250,000 boys and girls, some as young as 9, became hobos in the 1930s. Many of these young people had been to high school and even college.

- 1) Look at pictures of hobos. Search in Google Images for "1930s hobos" or look on page 77 in **Years of Dust** by Albert Marrin. Discuss the pictures. For the **Years of Dust** photo, ask how old they think the boys are? What are they doing? What can you tell from their clothing? Read pages 76-78 to learn about hobos.
- 2) This past year, many migrant children from Central American road on top of railroad cars to get to the United States. Have the class research where these children came from, why they came, and what happened to them when they got to the United States. Use the Kansas State Library student online databases: <http://kslib.info/221/Online-Databases>.

THE DEPRESSION & THE NEW DEAL

- 1) Young children can learn that there were people who helped others during the Depression. You can discuss how some people made soup for other, some people taught the farmers a better way to plow, young people (CCC) came and planted trees, etc. Then hold a discussion about who are the helpers in our community now? Read picture books about helpers. Draw pictures of their favorite helper.
- 2) The Kansas Heritage Center in Dodge City has a 1930s Trunk which contains large laminated newspapers; clippings from variety of issues, a VHS tape on the Rabbit Drive; several books; cassette interviews.
- 3) In the spring, go on a field trip to the Kansas Heritage Center in Dodge City to see their exhibit on the Depression with accompanying student guides.
- 4) Franklin Roosevelt's government program was called the New Deal. Where does that term come from? What programs were started in the 1930s to give people a "new deal".

PROPAGANDA AND SOCIAL ACTIVISM

- 1) Dorothea Lange and Arthur Rothstein are two photographers who took pictures for the Farm Security Administration. They were hired by the government to document the Depression and Dust Bowl. What is a documentary picture or film. What is propaganda? Can propaganda be for both good and bad reasons? Can photo/film be propaganda? Do pictures always tell the truth?
- 2) Look at these pictures (or others) available in Google Images and discuss how they are both good photographs and propaganda.
 Dorothea Lange "Poor Mother and Children, Oklahoma"
 Arthur Rothstein "A Young Boy In a Dust Storm"
 Russell Lee: "Christmas dinner"
- 3) The film, *The Plow that Broke the Plains* was directed by Pare Lorentz in 1936 for the Resettlement Administration to raise awareness about the Dust Bowl, New Deal and environmental issues. <https://archive.org/details/gov.fdr.352.2a.1> . Watch the film and discuss the ideas that it puts forth.
- 4) Alexandre Hogue always said his paintings were done for art. However they were seen by others as propaganda about man's relationship to the land and the Dust Bowl. Learn about Hogue in *An Illustrated History of the Dust Bowl* by Dayton Duncan and Ken Burns (pages 158-160). Look at some of his paintings and have the students decide if they think they are art, propaganda, or both.
- 5) Listen to Woody Guthrie songs of the period, or "Brother Can You Spare a Dime". How are these songs propaganda?
- 6) Look at newspaper articles, editorials or commentators like Will Rogers and Ernie Pyle for slanted or opinionated material. John L. McCarty, publisher of *Dalhart Texan* was a big, if not quite honest, promoter of Dalhart, Texas. He started "The Last man Club" where all of the men pledged they would be the last to leave – turned out McCarty left before the others.

MUSIC

FORGET YOUR TROUBLES, COME ON GET HAPPY

1) Listen to/learn some popular songs of the 1930s. There are lists on the Internet. It's the swing era. Here are a few the kids might like to learn.

Tumbling Tumbleweeds	Over the Rainbow
Wabash Cannonball (Go K-State)	Get Happy,
Happy Days are Here Again	Good Ship Lollipop
Cool Water	

RAMBLIN' AROUND WITH WOODY GUTHRIE:

- 1) Ask someone to come to the class to demonstrate playing the harmonica or guitar.
- 2) Learn to play the harmonica - purchase harmonicas for everyone in the class or start a club for those interested.
- 3) Read a book about Woody Guthrie and show some YouTube videos of Woody
- 4) Learn to sing "This Land is Your Land"
- 5) Discuss what topics today might have inspired Woody to write a song about. As individuals, in groups, or as a class, write a song.

I JUST DON'T WANT TO THINK ABOUT IT - Sports for Diversion

Sports were very popular during the 1930s. Some ideas for investigation:

- Learn about the 1936 Olympics with Jesse Owens winning four gold medals in the face of Hitler and his Aryanism.
- Why were the 1930s referred to as the Golden Age of Baseball?
- Using the high school annuals or the microfilm of the local newspapers (field trip to public library?) find out what amateur sports were being played in your community. (A note for Kinsley: The baseball grandstands were built in the 1930s. Find out who built it.)
- Play baseball or basketball in PE or recess.

CLASSROOM SURPRISES

OH NO! LOOK WHAT THE DUST BLEW IN?

All of a sudden, with no warning, at any time of day (sort of like a fire drill) the teacher will loudly say “Oh no! Look what the dust blew in?” Then interject a quick worksheet, quiz, or other activity into your regular work. Plan enough of these through out the Dust Bowl study that your students will groan and roll their eyes when you say it. Might be fun to secretly put some talcum powder in your hand and after you say “Oh no...”, blow the powder.

WHEN IT RAINS PARTY “HAPPY DAYS ARE HERE AGAIN”

At the end of your study of the Dust Bowl, why not throw a classroom or all-school party. Older students could help research and plan the party.

DECORATIONS:

Children decorate the room with clouds, raindrops, and a big rainbow – all simple and homemade

HAVE A SING-ALONG

If you have learned some songs, sing them. Maybe there is a guitar player in the community that can join the class.

ENTERTAINMENT:

Run some relays that involve water (carry water or dirt in a teaspoon to a glass, for example)

Have students bring board games to play:

Monopoly (1933), Sorry (1934) and Scrabble (1938) were all invented in the 1930s

Card Games: Go Fish, Snap, Rummy

Play jacks (inexpensive sets are available)

Watch a 1930s movie (See list on *Let's All Go to the Show in Visual Arts above*)

Play Dust Bowl Charades

Young children could play the “The Farmer in the Rain” “Itsy Bitsy Spider” finger play

You do the happy rain dance (hokey pokey)

Paint pictures with watercolors

TREATS:

Cracker Jacks

Kool-Aid Let kids mix it in big pitchers of cold water! (Did you know that Kool-Aid was invented by Edwin Perkins in Hastings, Nebraska. All of his experiments took place in his mother's kitchen. Its predecessor was a liquid concentrate called *Fruit Smack*. To reduce shipping costs, in 1927, Perkins discovered a way to remove the liquid from *Fruit Smack*, leaving only a powder. This powder was named *Kool-Aid*. Perkins moved his production to Chicago in 1931)

DON'T FORGET THE CLASS FIELDTRIP TO THE EXHIBIT, JANUARY 7 – February 20

Handy Dandy Dust Bowl Facts

- It takes 1000 years to build 1" of fertile top soil and only hours to blow it away.
- Before the European invasion, grasslands covered 21% of the U.S. and Canada.
- Growth rings of a tree in Nebraska showed 20 droughts in the 748 years before the 1930s.
- Man's first serious ecological blow to the Great Plains was the elimination of the bison and Native Americans.
- In 1800 it took 373 worker hours to produce 100 bu. of wheat. In 1900 it took 108 worker hours to produce 100 bu. And according to the Edwards County Extension Agent's research, a little less than 3 worker hours to produce 100 bu. of wheat today.
- Meteorologist rate the Dust Bowl as the #1 weather event of the 20th century.
- Dust particles are extremely fine, 63 microns or smaller. By contrast, a period at the end of a typewritten sentence is three hundred microns.
- It takes a wind of 35 mph to move dirt. At 40 mph or 50 mph, it is a dust storm
- After the front of a dust storm passed, the air was still and the dust particles hung in it.
- During WWI an extra 11 million acres were plowed up to grow wheat for Europe after the Turks cut off the grain supply coming from Russian. Prices rose to \$2.25/bu. After the war and because of over-production and the Depression, soon the farmer could not even give wheat away and it rotted on the ground beside the railroad tracks.
- By 1929 farmers were planting 3 times more wheat than they had in 1920. By the late 1920s, another 5,250,000 acres of grassland were lost to the plow, an area nearly seven times the size of the state of Rhode Island.
- In 1929, with the loss of jobs, a new immigration law sent ½ million Mexicans back to Mexico
- Sept. 14 , 1931 was the first really bad rolling dust storm with winds reaching 60 mph.
- The price of gas dropped from \$1.43 a barrel to 10 cents a barrel in 1931.
- What became known as the Dust Bowl included 100 million square miles in Nebraska, Kansas, Colorado, Oklahoma, Texas, and New Mexico
- Most Americans paid no federal income tax in 1932

- In 1932 there were fourteen bad storms and the weather bureau began to call them dust storms.
- In 1932, one in every four workers was jobless. In the cities it was 50%. In Toledo, four out of five workers were jobless.
- In 1933 there are 39 dust storms. It could be told where they came from by the color of the dust: black soil came from Kansas, red soil came from Oklahoma, and gray soil came from Colorado and New Mexico
- 90% of chickens died from the effects of dust in 1933 in one Texas panhandle county.
- In 1933, under a program of planned scarcity, farmers plowed under millions of acres of wheat, corn, and cotton. Six million baby pigs were killed and 200,000 sows.
- The WPA hired out of work farmers and factory workers to build schools, pave dirt roads, and put up bridges. AAA starting with 134 million in 1934 paid farmers to reduce the amount of wheat and other crops they grew in order to end the glut of farm products on the market.
- In 1934, there were forty days over 100 degrees, some going as high as 118 degrees.
- On May 9 1934, one storm was 1,500 miles long, 900 miles across, and 2 miles high. Planes had to fly 15,000' to get above it. The storm carried 3 tons of dust for every American alive. It went as far as NYC where it was 1,800 miles wide and weighed 359 million tons. It carried dust 300 miles out into the Atlantic Ocean.
- 350 million tons of soil left Kansas, Texas, and Oklahoma and was deposited in eastern states. One night, Chicago alone got 12 million tons (4 pounds of grit for each person in the city.) In NY and Boston, the dust darkened the sky so much the street lamps were lit in the daytime.
- More than 850 million tons of topsoil had blown off the southern plains in 1935, nearly 8 tons of dirt for every resident of the United States. In the Dust Bowl, farmers lost 480 tons per acre. 100 million acres might never be productive farmland again.
- An AP reporter named Robert Geiger made up term "Dust Bowl" after the Black Sunday Dust Storm on April 14, 1935.
- The Black Sunday storm was 200 miles across and 2000 feet high with 65 mph winds. The temperature dropped 25 degrees per hour, or 50 degrees in 2 hours
- On Black Sunday twice as much dirt blew away as was dug out of the Panama Canal and that took 7 years to dig. More than 300,000 tons blew away.
- It could take less than 1 hour exposure outside to darken one of the Red Cross masks.

- During March & April, 1935 about 4.7 tons of dust per acre fell on western Kansas during each blizzard
- Black blizzards in 1935 caused complete blackouts for a total of 908 hours or over a month of darkness.
- In the spring of 1935, the Red Cross set up six emergency hospitals in the Dust Bowl states. Red Cross volunteers handed out 17,000 gauze masks. Red Cross doctors and nurses visited hundreds of homes to help people who were sick from the dust.
- In 1935, 850 million tons of top soil blew away. The average dust bowl farm lost 480 tons of top soil per acre
- One-third of the deaths in 1935 in one KS county were caused by dust pneumonia
- In 1935, the Works Progress Administration (WPA), Farm Security Administration (FSA), the Civilian Conservation Corp (CCC), and the National Recovery Administration (NRA) were begun.
- 2.5 million people left their farms in 1935. Some just went to nearby town, but 300,000 traveled to California. This was the , largest single migration in U.S. history
- Over 2 years (1936-1938) 221,000 people moved to California, most of them from Arkansas, Oklahoma, and Texas. But only 16,000 came from the actual Dust Bowl. A majority of people in the most wind-bared and lacerated counties in the southern plains did not move, or they relocated only a few hundred miles in one direction.
- Grape pickers in California worked 16 hours a day, 7 days a week, for \$4. Children were paid less.
- The WPA paid 18¢ an hour and the CCC paid 20¢ an hour in Edwards County. Horses made \$1.00 per day.
- Canada lost 25% of populations from the wheat lands. In the U.S., 2.5 million people left the south and the Great Plains.
- One day in July, 1936 in North Dakota, the temperature reached 121 degrees.
- At the end of 1936, Kansas made plans to close four hundred schools.
- In July, 1937, 14 million grasshoppers per square mile or 23,000 grasshoppers per acre swept through.
- When a train tried to run on tracks covered with grasshoppers, the wheels could get no traction, and they just spun around. Grasshoppers had stopped a train.
- There were 134 storms in 1937.

- In January 1937, gas was 22 cents per gallon. It took a full day's work on a government road job to fill a tank. (*1930 Model A held 11 gallons*)
- In July 1938 Roosevelt went to Amarillo, and it rained.
- By the summer of 1938, 3.600 miles of trees had been planted in TX, OK, KS
- During the 1930s, 25% or 3 million people left the Midwest. Between 1935 and 1940 more than one million people moved to California.
- Approximately 250,000 boys and girls, some as young as 9, became hobos in the 1930s.
- During the Depression, one-third of all farms were lost to foreclosure, and 9000 banks closed.
- In the 1930s the government bought 11.3 million acres of dusted-over farm fields and tried to return it to grasslands. In 2000, some of it is still sterile and blowing.
- A professor at Kansas State College estimated that if a line of trucks ninety-six miles long hauled ten full loads a day, it would take a year to transport the dirt that had blown from one side of Kansas to the other – a total of forty-six million truckloads.
- 220 million trees were planted in the 1930s, but in the 1940s when wheat prices shot up because of WWII, farmers ripped out the shelter belt trees to plant again.
- Droughts in the 1950s, 1974-76, 2000-2003 didn't blow as much because of soil conservation districts, irrigation from the Ogallala, changed farming techniques, and Hugh Bennett's program of managing the land as a single ecological unit.
- Hugh Bennett's legacy, the soil conservation districts, spread throughout America, and is the only New Deal grassroots operation that survives to this day.

Vocabulary

Choose words appropriate for the class' study and grade level.

AAA

agronomist

bank holidays

lack Blizzard

black rollers,

Black Sunday, April 14, 1935

Black Tuesday, October 29, 1929

blue stem grass

headline

buffalo grass

bum blockade

bumper crop

CCC

cheesecloth

chisel plowing

collateral

contour plowing

default

desertification

Dirty Thirties

drought/drouth

Dust Bowl

dusters

dust pneumonia

ecology

ecosystem

environment

erosion

exoduster

foreclosure

fallow

FERA

FSA

Filthy Fifties (Disasters p. 161)

flivver

Great Depression

Great Plains

grama grass

harmonica

heat wave

hobo

hobo jungle

Hooverville

jet stream

Llano Estacado

lard

migrant

Model T, Model A

mortgage

New Deal

Ogallala Aquifer

Okie

Okieville

one-way disc plow

oxygen tent

plain

planned scarcity

propaganda

refugee

relief

Route 66 Main Street America,

Mother Road,

semi-arid

separator

sharecropper

shelter belt

Social Security

sod

sodbuster

snuster

stock market

subsidy

tenant farmer

yeast

wage slave

Wall Street

whiteout

Weedpatch school

WPA