

LESSON 42

TEXAS ALMANAC TEACHERS GUIDE

SOCIAL STUDIES TEKS

4 - 6, 8, 11, 12, 21, 22, 23

7 - 7, 8, 9, 12, 21, 22, 23

8 - 14, 29, 30

STAAR

4, 7 - Writing - 1, 2, 3

4, 7, 8 - Reading - 1, 2, 3

8 - Social Studies - 4

Agriculture in Texas

- *Principal Crops*
- *Vegetable Crops*
- *Fruits & Nuts*

INSTRUCTIONAL SUGGESTIONS

- 1. MYSTERY WORD PUZZLE:** Students will complete the **Agriculture Mystery Word Puzzle**, using information in the Agriculture section of the Texas Almanac.

They should read each of the 40 statements in the puzzle to determine if it is **true or false** and circle the correct answer ("T" or "F").

If the statement is true, students will connect the numbers indicated by the "T." If it is false, students will connect the numbers indicated by the "F." If the answers are correct, students will easily recognize the **mystery message** that emerges.

- 2. PRINCIPAL CROP RESEARCH:** Students will be assigned a **principal Texas crop** from the "Principal Crops" section to research. They will **create a symbol for their crop** and place the symbol in its primary growing location on a **large Texas wall map**. Students will then present to the class the information they have learned from their research.

*A mature wheat field in Texas.
Photo courtesy of the USDA Natural
Resources Conservation Service.*

LESSON 42 – Agriculture in Texas

3. **CASH RECEIPTS & COMMODITIES:** Students will answer the questions on the **Student Activity Sheet** using, the “Cash Receipts for Commodities” table in the Agriculture section.
4. **GROCERY STORE ADS:** The class will read a **local grocery store advertisement**. Working in pairs, the students will determine which products in the produce section and the meat section might be grown in Texas. They can check the “Cash Receipts for Commodities” table to see if the items are listed and conduct research at GO TEXAN: <http://www.gotexan.org/>
5. **IMPORTANCE OF COTTON:** In a paragraph, students will assess the validity of this statement:

COTTON IS THE MOST IMPORTANT CROP PRODUCED IN TEXAS.

6. **CLASS GARDEN:** Students will **plan a garden** to be planted at their school (or other designated location). They will conduct research on soil preparation, climate, and crops appropriate for their particular region.

In groups of three or four, students will be responsible for the **design, planting, and maintenance** of a particular crop for their class garden.

The teacher may wish to include parent volunteers with horticulture expertise and allow students to search the resources at the Texas A&M AgriLife Extension Service:

(<http://aggie-horticulture.tamu.edu/vegetable/>)

<https://www.youtube.com/user/skiprgarden/videos>

A Grayson County field offers up oil and cotton. Since 1980, Texas has led all states in cotton production in most years. The annual Texas cotton harvest amounts to 25 percent of total production in the United States. Photo by Ron Billings; Texas A&M Forest Service



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STUDENT ACTIVITY

Agriculture Mystery Word Puzzle

1. A leading Texas industry is agribusiness.
T – 116 to 117
F – 114 to 125
2. Few businesses, financial institutions, and individuals are involved in providing supplies, credit, and services to farmers and ranchers.
T – 21 to 22
F – 55 to 56
3. The demand for food and fiber is increasing throughout the world.
T – 101 to 105
F – 9 to 12
4. Texas has a relatively warm climate, productive soils, and availability of excellent export and transportation facilities.
T – 66 to 68
F – 51 to 58
5. The number and nature of farms does not change over time.
T – 59 to 61
F – 12 to 17
6. Chemicals are used in Texas agriculture.
T – 2 to 9
F – 35 to 40
7. Irrigation has become less important in crop production.
T – 28 to 30
F – 76 to 81
8. Global Positioning Systems (GPS) are really not very useful for farmers.
T – 58 to 63
F – 22 to 29
9. Examples of mechanization in farming include tractors, mechanical harvesters, and cropping machines.
T – 14 to 19
F – 76 to 86
10. Farmers continue to be concerned with the availability of labor and high energy costs.
T – 36 to 41
F – 111 to 119
11. Farms have become smaller, less specialized, and less expensive to own and operate.
T – 1 to 8
F – 116 to 124
12. Ranchers and farmers are better educated and more science and business oriented today than in the past.
T – 127 to 128
F – 112 to 124
13. Since 1940, the proportion of Texans whose livelihood is linked to agriculture has changed greatly.
T – 89 to 91
F – 40 to 53
14. Meat animals include cattle, hogs, and horses.
T – 133 to 135
F – 112 to 113
15. The management of wildlife as an economic enterprise through leasing for hunting is not important to the economy of many counties.
T – 28 to 35
F – 47 to 48

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STUDENT ACTIVITY

Agriculture Mystery Word Puzzle

16. The demand for hunting opportunities is growing, while the land capable of producing wildlife for hunting is decreasing.
T – 33 to 38
F – 18 to 19
17. Irrigation is practiced in only about half the counties of the state.
T – 49 to 52
F – 108 to 109
18. Declining groundwater levels in several of the major aquifers is a serious problem for agriculture, particularly in the Ogallala Aquifer of the Texas High Plains.
T – 105 to 108
F – 113 to 124
19. Cotton has been a major cash crop in Texas for more than a century.
T – 131 to 135
F – 73 to 86
20. Cotton in Texas is always handpicked and never machine harvested.
T – 60 to 64
F – 49 to 56
21. Much of the grain sorghum is used for human consumption.
T – 26 to 39
F – 12 to 14
22. A very small proportion of Texas' agricultural land is devoted to forage crop production.
T – 80 to 81
F – 38 to 44
23. Plant rental services have become a multi-million dollar business.
T – 123 to 124
F – 85 to 86
24. Almost all oat grain produced in Texas is utilized as feed for livestock in other states.
T – 11 to 17
F – 13 to 18
25. Two varieties of peanuts are grown in Texas: Spanish and Florunner.
T – 128 to 136
F – 77 to 87
26. Rice is grown in nearly all the counties of Texas.
T – 10 to 14
F – 47 to 54
27. Brown rice has no real flavor and a very crisp texture.
T – 130 to 131
F – 5 to 6
28. In Texas, soybeans should be planted during the long days of May and June.
T – 127 to 134
F – 55 to 67
29. Sugarcane is grown from seed cane planted in early spring.
T – 43 to 54
F – 89 to 96
30. Texas sugarcane producing counties are Travis, Brewster, and Ector.
T – 113 to 114
F – 66 to 71

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Agriculture Mystery Word Puzzle

31. Sunflowers constitute one of the least important annual oilseed crops in the world.
T – 20 to 26
F – 81 to 86
32. Wheat for grain is one of the state's most valuable cash crops.
T – 90 to 98
F – 85 to 93
33. Some market vegetables are produced in almost all Texas counties, but most of the commercial crop comes from about 200 counties.
T – 78 to 84
F – 16 to 17
34. Texas is one of the leading states in the production of fresh market vegetables.
T – 48 to 55
F – 77 to 88
35. The top vegetable cash crops continue to be carrots and cucumbers.
T – 95 to 99
F – 67 to 72
36. Commercial tomatoes from Texas are only marketed during the late spring and summer.
T – 30 to 34
F – 90 to 97
37. Citrus is produced in the Lower Rio Grande Valley.
T – 96 to 97
F – 117 to 21
38. In Texas, peaches are primarily produced along the Gulf Coast.
T – 124 to 128
F – 23 to 28
39. The pecan is widely used as a dual-purpose yard tree.
T – 101 to 102
F – 72 to 75
40. Many of the new pecan orchards are irrigated.
T – 135 to 136
F – 116 to 124

A field along Texas 173 in Medina County is irrigated. Total irrigated farmland in Texas varies between 6 million and 6.4 million acres. Photo by Robert Plocheck.



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STUDENT ACTIVITY

Agriculture Mystery Word Puzzle

1 • 8 • 11 • 25 • 31 • 37 • 43 • 51 •
 4 • 16 • 21 • 27 • 35 • 46 • 53 • 58 •
 2 • 5 • 9 • 12 • 17 • 22 • 28 • 38 • 47 • 54 • 59 •
 13 • 18 • 36 • 41 • 48 • 55 •
 6 • 14 • 19 • 23 • 29 • 33 • 44 • 49 • 56 •
 3 • 7 • 20 • 26 • 39 • 45 • 52 • 60 •
 10 • 24 • 30 • 34 • 42 • 50 • 57 • 61 • 15 •
 62 • 65 • 70 • 74 • 80 • 85 • 95 • 115 • 122 • 133 •
 66 • 71 • 75 • 81 • 83 • 88 • 93 • 104 • 111 • 126 • 130 •
 63 • 67 • 72 • 78 • 84 • 89 • 96 • 101 • 108 • 112 • 116 • 123 • 127 • 134 •
 94 • 105 • 131 • 135 •
 68 • 76 • 86 • 91 • 98 • 102 • 109 • 113 • 117 • 124 • 128 • 136 •
 64 • 73 • 79 • 82 • 87 • 99 • 103 • 106 • 110 • 114 • 118 • 120 • 125 • 129 • 132 • 137 •
 77 • 82 • 87 • 99 • 107 • 121 •

Cash Receipts and Commodities

Answer these questions using, the “Cash Receipts for Commodities” table in the Texas Almanac’s Agriculture section.

- a. Which **livestock and products** decreased in cash receipts during the last five years? _____
- b. Between which two years did **cattle and calves** show the largest increase?

- c. Which **crops** increased in cash receipts during the last five years? _____

- d. Which **crop** showed the largest percent increase in cash receipts during the last five years? _____
- e. Which **fruit** produced the largest cash receipts in the most recent year?

- f. What is the **difference in cash receipts** between the top-ranked fruit and the lowest-ranked fruit in the most recent year? _____
- g. What were the **average (mean) cash receipts** of cotton lint, hay, corn, sorghum grain, and wheat in the most recent year? _____
- h. **How much more** were the cash receipts for potatoes than for sweet potatoes in the most recent year? _____
- i. **How much less** were the cash receipts for honeydew melons than for cantaloupes in the most recent year? _____
- j. How much did the **cash receipts for onions** increase or decrease in the last two years? What is the percent of increase or decrease? _____
