

8th Grade
AMI Packet
#12



AMT Day 12

Define:

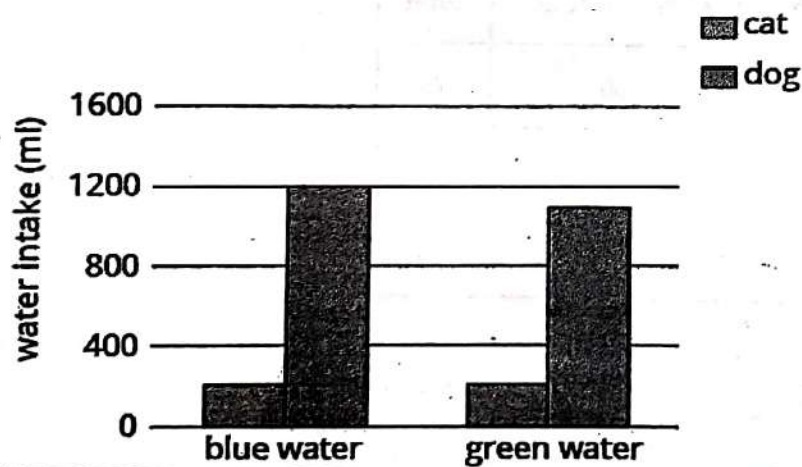
Relative frequency -

Segmented bar graph -

two-way table -

1. A scientist wants to know if the color of the water affects how much animals drink. The average amount of water each animal drinks was recorded in milliliters for a week and then graphed. Is there evidence to suggest an association between water color and animal?

	cat intake (ml)	dog intake (ml)	total (ml)
blue water	210	1200	1410
green water	200	1100	1300
total	410	2300	2710



2. A farmer brings his produce to the farmer's market and records whether people buy lettuce, apples, both, or something else.

	bought apples	did not buy apples
bought lettuce	14	58
did not buy lettuce	8	29

Make a table that shows the relative frequencies for each row. Use this table to decide if there is an association between buying lettuce and buying apples.

3. Researchers at a media company want to study news-reading habits among different age groups. They tracked print and online subscription data and made a 2-way table.

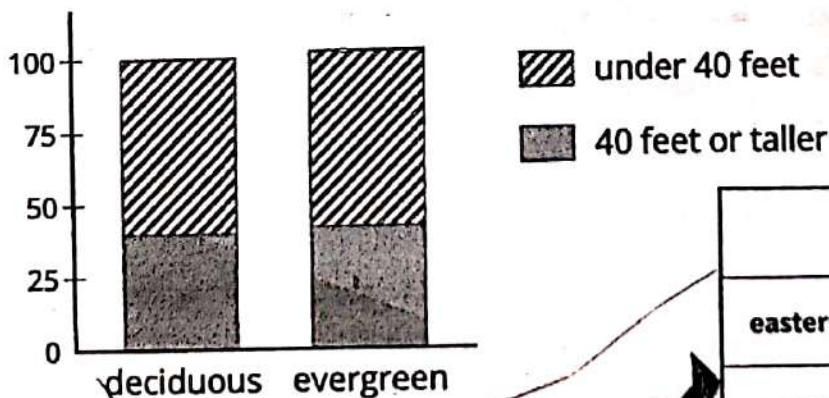
	internet articles	print articles
18-25 year olds	151	28
26-45 year olds	132	72
45-65 year olds	48	165

a. Create a segmented bar graph using one bar for each row of the table.

b. Is there an association between age groups and the method they use to read articles? Explain your reasoning.

4. An ecologist is studying a forest with a mixture of tree types. Since the average tree height in the area is 40 feet, he measures the height of the tree against that. He also records the type of tree. The results are shown in the table and segmented bar graph. Is there evidence of an association between tree height and tree type? Explain your reasoning.

	under 40 feet	40 feet or taller	total
deciduous	45	30	75
evergreen	14	10	24
total	59	40	99



	zone 1	zone 2
eastern tiger swallowtail	16	34
monarch	24	46

5. A scientist is interested in whether certain species of butterflies like certain types of local flowers. The scientist captures butterflies in two zones with different flower types and records the number caught. Do these data show an association between butterfly type and zone? Explain your reasoning.

Name: _____

Poetic Devices Worksheet 1

Directions: Read the lines of poetry. Slashes represent line breaks. Identify two or more poetic techniques being used in each example and write them on the line. There may be more than two techniques being used. In the boxes below, explain each of your answers.

Answers: Alliteration, Consonance, Onomatopoeia, Repetition, Rhyme, Rhythm

1. A child sitting under the piano, in the boom of the tingling strings
And pressing the small, poised feet of a mother who smiles as she sings.

Which techniques are being used (list two or more)? _____

Alliteration, Consonance, Onomatopoeia, Repetition, Rhyme, and/or Rhythm

How do you figure?

Explain how you got your answer

2. Click-clack, click-clack, the hoofs went past,
Who takes the dead coach travels fast,

Which techniques are being used (list two or more)? _____

Alliteration, Consonance, Onomatopoeia, Repetition, Rhyme, and/or Rhythm

How do you figure?

Explain how you got your answer

3. And I begged the little leaves to lean
Low and together for a safe screen;

Which techniques are being used (list two or more)? _____

Alliteration, Consonance, Onomatopoeia, Repetition, Rhyme, and/or Rhythm

How do you figure?

Explain how you got your answer

4. Big-voiced lassies made their banjos bang,

Which techniques are being used (list two or more)? _____

Alliteration, Consonance, Onomatopoeia, Repetition, Rhyme, and/or Rhythm

How do you figure?

Explain how you got your answer

5. Lord, confound my surly sister, / Blight her brow with blotch and blister,
Cramp her larynx, lung, and liver, / In her guts a galling give her.

Which techniques are being used (list two or more)? _____

Alliteration, Consonance, Onomatopoeia, Repetition, Rhyme, and/or Rhythm

How do you figure?

Explain how you got your answer

6. Booth led boldly with his big bass drum--
Ingles waved the flag with no lag from the front.

Which techniques are being used (list two or more)? _____

Alliteration, Consonance, Onomatopoeia, Repetition, Rhyme, and/or Rhythm

How do you figure?

Explain how you got your answer

7. Beautiful friendship tried by sun and wind,
Durable from the daily dust of life.

Which techniques are being used (list one)? _____

Alliteration, Consonance, Onomatopoeia, Repetition, Rhyme, and/or Rhythm

How do you figure?

Explain how you got your answer

8. Will no one stop that tapping? / I cannot sleep for it.
I think that someone is shut in somewhere, / And trying to get out.
Will no one let them out, / And stop the tapping?
It keeps on tapping, tapping.... / Tap ... tap ... tap ... tap....

Which techniques are being used (list two or more)? _____

Alliteration, Consonance, Onomatopoeia, Repetition, Rhyme, and/or Rhythm

How do you figure?

Explain how you got your answer

9. Did they love the leaves and wind,
Grass and gardens long ago
With a love that draws them home
Where things grow?

Which techniques are being used (list two or more)? _____

Alliteration, Consonance, Onomatopoeia, Repetition, Rhyme, and/or Rhythm

How do you figure?

Explain how you got your answer

10. "Tlot-tlot; tlot-tlot!" Had they heard it?
The horse-hoofs ringing clear--
"Tlot-tlot, tlot-tlot" in the distance?
Were they deaf that did not hear?

Which techniques are being used (list two or more)? _____

Alliteration, Consonance, Onomatopoeia, Repetition, Rhyme, and/or Rhythm

How do you figure?

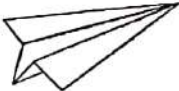


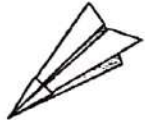
Explain how you got your answer

Day 12

Name: _____

Mr. Davis gave his 3rd grade science class a project to complete. Students had to create a paper airplane that could fly across the classroom. If the airplane couldn't fly across the classroom, students had to continue trying new designs until they were successful. Students had to record their findings in a table. The results from Rachel's experiment are in the table below. Use the table to answer the questions that follow.

Table 1

Airplane	Color paper	Weight (in grams)	Length (in cm)	Image:	Did it fly across the classroom?
A	Notebook paper	3	12		no
B	Copy paper	4	9		no
C	Construction paper	5	10		no
D	Copy paper	4	11		yes

1. Based on table 1, what airplane was able to fly across the classroom?
2. Order the airplanes from smallest size to largest based on their length.

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Name: _____

3. Why do you think Airplane D was able to fly across the room? What made it different from the other planes?
4. Order the airplanes from largest to smallest based on their weight.
5. Why do you think some airplanes weren't able to fly across the classroom? Justify your answer with information from the table.
6. How many airplanes did Rachel have to make for her experiment to be successful?

8th Grade Arkansas History AMI Day 12 (4/8/2020)

Directions: Use the reading passage on the next page to answer the following questions. The questions go in order with the passage. You do not have to write in complete sentences, but make sure you thoroughly answer each question.

Questions from Farming, Industry, and Economics

1. What encouraged the growth of manufacturing within the state?
2. How did the value of the state's manufactured products change between 1879 and 1898?
3. What percentage of all workers in the state worked at jobs other than farming in 1880? What percentage of all workers did non-farm workers make up by 1900?
4. Which industry offered the lowest wages of any of the new industries? How much more income did it provide than the typical farmer could expect?
5. What is one reason why railroad workers were the elite new labor force in terms of earning power?
6. List 5 towns that were created because of the railroads (you do not have to list the counties).
7. How much did the population of Little Rock grow between 1800 and 1900?
8. What happened to the prices of all farm products in the three decades of the Gilded Age?
9. How did the average size of a farm in the state change from 1879 to 1899?
10. How did tenant farming work?

Farming, Industry, and Economics

New crops, the spread of commercial agriculture, the timber industry, mining, and the railroads encouraged the growth of manufacturing within the state. Many new industries emerged to process the state's farm goods. In the northwestern section, companies such as Springdale Canning and the Fayetteville Evaporator Company processed the new crops of apples, peaches, strawberries, and many different vegetables. In the cotton growing regions, new enterprises such as Southern Cotton Oil, Emma Oil of Pine Bluff (Jefferson County), and the Little Rock Oil and Compress Company extracted cottonseed oil used for everything from the manufacture of soap to lubricants. The timber industry spawned companies such as Bluff City Lumber that produced window frames and other housing materials, Buddenberg Furniture Factory of Fort Smith (Sebastian County), and others that manufactured broom handles, oars, rifle stocks, and even golf clubs. Pine Bluff Agricultural Works, Pine Bluff Iron and Engine Works, and Little Rock Foundry and Machine Shops typified companies that fabricated plows, cotton gins, and a wide variety of other such equipment for the farm and the new industries. The railroad companies developed some of the most technologically advanced facilities. The Division Shops of the Cotton Belt at Pine Bluff and the Baring Cross Shops of the Iron Mountain at Little Rock built a variety of equipment for the railroads, including steam engines. These new concerns did not measure up to the factories of the Northeastern states in size or value, but their growth paralleled that of companies in many of the Midwestern states. Between 1879 and 1898, the value of the state's manufactured products expanded from \$6,756,159 to \$45,197,731.

The state's changing economy led to significant upheaval for the society and culture of Arkansans. Expanding economic activities produced new employment opportunities and began shifting the basic character of work in the state. In 1880, only seventeen percent of all workers in the state worked at jobs other than farming. Agriculture clearly dominated the labor market. By 1900, non-farm workers made up almost thirty percent of all workers. The move established a trend that continued unabated in the next century. The new jobs had an immediate impact on workers' lifestyles. Wages got better. Even the average job in the timber industry, which offered the lowest wages of any of the new industries, provided an income three to four times what the typical farmer could expect. In terms of earning power, railroad workers were the elite of the new labor force, at least in part because many had joined unions such as the Knights of Labor in the 1870s and then the American Federation of Labor in the 1880s and 1890s. The new jobs gave workers new prosperity and a share of the material wealth being produced by the national economy.

The state's economy improved as Arkansas became more closely linked to the national market, but economic change also led to demographic change. Towns and cities became more important. The railroads actually created some new towns, such as Malvern (Hot Spring County), Texarkana (Miller County), Hoxie (Lawrence County), Paragould (Greene County), and Wynne (Cross County). Older communities along the new transportation routes became the centers for many of the activities of the new economy. Little Rock, already an administrative and commercial center, grew almost 200 percent between 1880 and 1900, expanding from 13,138 to 38,307. Pine Bluff showed similar growth, reaching a population of 11,496 by 1900. Fort Smith, long avenue into the Indian Territory and home of Judge Isaac Parker's for that area, attracted its share of new industries and, by 1900, had become the state's second largest city with a population of 11,587. Smaller trade centers also boomed. Paragould, which was not established until 1883, reached a population of 3,324 by 1900 and was the state's eleventh largest city. In 1880, only four percent of the state's population was considered to be urban. By 1900, the number had more than doubled. Living together in larger communities forced rural Arkansans to integrate themselves into a more complex social order. They confronted religious, ethnic, and occupational diversity. They also encountered, to a much greater degree than those left behind down on the farm, the broader national culture.

The economic transformation taking place created prosperity and new lifestyles for some, but in a state still dominated by farming, these changes also had a widespread negative impact. Crop diversification and the greater focus on cotton as a cash crop offered some potential for farmers to get ahead, but other forces worked against that success. The expanding national market gave Arkansans more places to sell their goods, but it also forced local products into increasing competition with farmers elsewhere in the country and overseas. Conditions for the cotton grower typified those for every other farmer in the state. Productivity simply outpaced consumption. As a result, the prices of all farm products declined steadily in the three decades of the Gilded Age. Cotton prices led the way down and had the greatest impact on Arkansas farmers because of the crop's local importance. Average prices of about twelve cents per pound in the mid-1870s fell as low as six cents per pound by 1898. Few farmers made much money on cotton at that price. Wheat growers in the northwest part of the state confronted competition from inexpensive flour produced in the Midwest, and even the skilled craftsmen of the towns struggled to survive as mass-produced industrial goods entered the market from the North.

The collapse of prices produced hard times, but steadily declining productivity among Arkansas farmers worsened the situation. The size of farms decreased throughout this period, which created less efficient operations. From 1879 to 1899, the average size of a farm in the state fell from 128 acres to ninety-three acres. At the same time, many of these farms developed on marginal lands. Farmers who worked these small units seldom had the resources to cultivate the land efficiently. Mule-drawn plows that could not cut deeply into the earth, a lack of money to buy fertilizers, and the inability to improve land through crop rotation—all of this led to diminishing crops. As a result, the output per acre diminished each year. Between 1879 and 1899, the state's cotton crop output again led the way, dropping from 0.6 to 0.4 bales per acre.

Conditions pushed many farm families into poverty. They fought to survive while paying off loans to country merchants and bankers. In many cases, the struggle ended in bankruptcy. This caused a significant shift in the character of farming in many parts of the state. As farm owners defaulted on their loans and found their property seized by creditors, land ownership shifted into the hands of corporate owners, especially merchants and banks. Tenant farming became increasingly important, with tenants often working as sharecroppers, receiving a portion of the crop for their work while the actual landowner received another portion for the use of the land. This system had emerged after the Civil War as the primary way landowners contracted with freedmen for their labor, but the practice expanded between 1879 and 1898 with large numbers of white farmers joining African Americans as tenants. During these years, the number of farms operated by tenants increased from thirty-one to forty-five percent, a statistic that indicated not only the changing nature of farm tenure but also pointed to the destitution of many farm families.

Source: <https://encyclopediaofarkansas.net/entries/post-reconstruction-through-the-gilded-age-1875-through-1900-402/>